



Perspectives from the *Global Entertainment & Media Outlook 2019–2023*

Getting personal: Putting the *me* in entertainment and media

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About this report

We're delighted to welcome you to our special report on this year's *Global Entertainment & Media Outlook*. Now in its 20th year, the *Outlook* has been charting the ongoing revolution in these dynamic sectors for two tumultuous and fascinating decades. As in previous years, we've taken a deep dive into our wealth of detailed data, forecasts and analyses, and created new perspectives and insights to help you shape your strategies for the year ahead.

The starting point for these insights is our data and projections on 14 defined segments across 53 territories. Our industry experts have overlaid this raw research data with their own experiences and observations to tease out the overarching themes — thus creating actionable intelligence for companies across the global entertainment and media (E&M) space.

What are the highlights in the new *Outlook*? This year, we're looking at the industry through the lens of the consumer. We focus on the rise of increasingly personal and personalised media interactions, as today's consumers — eager, highly selective and voracious — seize the opportunity to enjoy media experiences tailored to their own preferences, contexts and schedules.

In a word, the theme is personalisation. Consumers are using an expanding array of connected devices to organise, curate and discover their own unique worlds of media. In response, companies are designing their offerings to revolve around personal preferences, using data and usage patterns to pitch their products not at audiences of billions, but separately at billions of individuals.

As this report explains, this increasingly tailored world has major implications for every E&M business across every segment. Whether the subject is business and revenue models, emerging technologies, or regulation and trust, companies must keep on top of current and future developments — and be sufficiently agile, ready to respond proactively and at pace.

Take the rollout of next-generation 5G networks. This tech breakthrough is seemingly outside E&M. But the launch of 5G networks will create new use cases, enhance the customer experience and accelerate growth for many sub-sectors of the E&M industry, from video games to high-definition video streaming of sporting events. For companies that respond to such disruptions effectively, the opportunities are immense.

Every year, all of us on the PwC industry team look forward to writing this report. It provides us with a unique opportunity to cross-fertilise ideas and make connections among segments and territories. We hope it helps you do the same. To learn more about how our findings and thinking apply to your business, please contact your local PwC team ([see page 23](#)) or reach out to either of us. We look forward to hearing from you.

Best regards,



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1

Introduction: Now it's getting personal

How do you consume entertainment and media content? Ask 20 different people, and you're likely to get 20 different answers, even if some of those people live under the same roof. One parent may watch the first episode of the final season of HBO's epic *Game of Thrones* on a 60-inch television on Sunday night when it first airs. The other parent might stream it later in the evening on the HBO Go app on an iPad. Their teenager might watch it the next day on his phone, while simultaneously playing a video game. Their daughter, home from university, might download it, and then stream the episode on her laptop four days

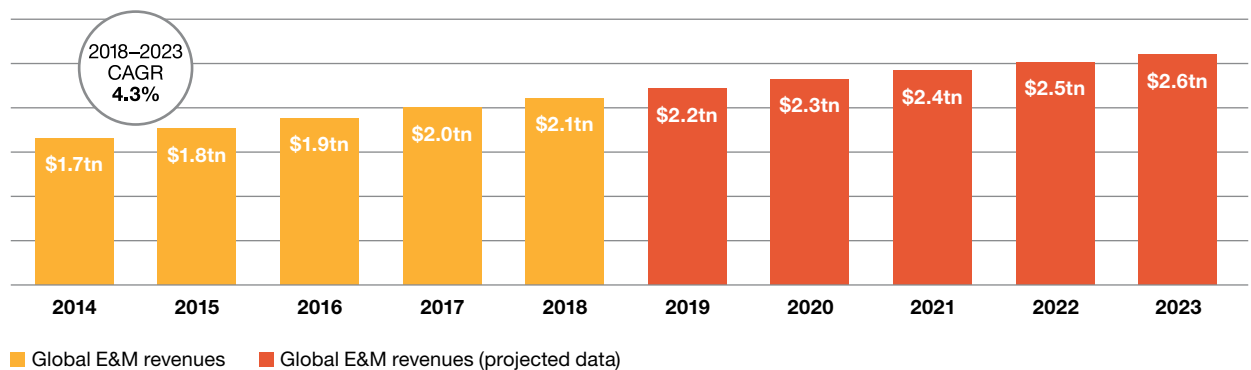
later. In 2019, there is still such a thing as appointment viewing on television. But it is the viewer who makes the appointment.

Consumers are embracing the expanding opportunities to enjoy media experiences uniquely tailored to their own personal preferences, contexts and schedules. Increasingly mobile and never idle, empowered consumers around the world want to exert greater control over how and when they experience media. They do so by managing their media consumption via smartphones and an expanding range of devices, by curating their personal selection of channels via over-the-top (OTT) services, and by bringing more digital media content into their lives via smart homes and connected cars.

This activity is driving steady growth. As PwC's *Global Entertainment & Media Outlook 2019–2023* shows, industry spending will continue to rise at a rate faster than overall economic growth, at a projected 4.3% CAGR through 2023.

A rising tide

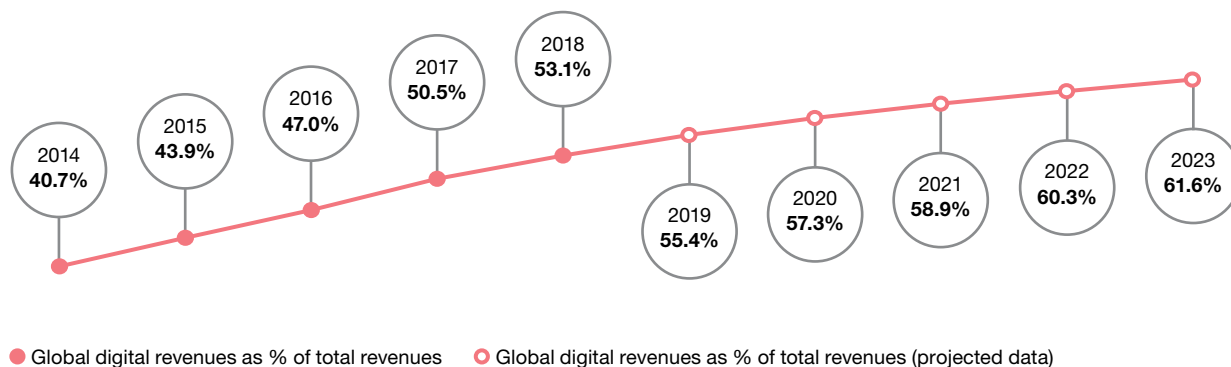
Revenues for the global entertainment and media (E&M) industry continue to rise steadily.



Source: PwC *Global Entertainment & Media Outlook 2019–2023*, www.pwc.com/outlook

Inexorable digitisation

With each passing year, digital revenues account for a larger share of the E&M industry.



Source: PwC *Global Entertainment & Media Outlook 2019–2023*, www.pwc.com/outlook

The central theme of this growing world of media is that it's personal and increasingly digital. And it is one that is constructed by the individual for his or her own enjoyment and gratification, and delivered through personal devices. Companies, in turn, are tailoring their offerings and business models to revolve around personal preferences, leveraging data and usage patterns to pitch their products not at audiences of billions, but at billions of individuals. The largest platforms cater to and anticipate users' personal needs with AI-enabled, algorithm-driven playlists and recommendations. Meanwhile, growing ranks of virtual assistants sit ready to listen to the demands and requests of their owners — and to address them personally. In response, marketers are racing to reach individuals at the point of consumption.

It's a world where everything converges on the consumer and the individual experience. But it's also a world of divergence at both an individual and a global level. Personalisation is the opposite of standardisation, which means everybody's experience with a particular song, film or game is unique. In the acclaimed *Bandersnatch* episode of the TV series *Black Mirror*, viewers designed their own narrative paths through the story, leading to a range of conclusions. Understanding those differences — whether someone is listening to your podcast while exercising or commuting, for example — is the key to developing better advertisements, a better user experience and better business results. From a global perspective, given local and regional differences in income, norms, culture and infrastructure, the take-up and performance of some entertainment and media (E&M) segments

vary widely across different geographies. All of which means companies that wish to position themselves for a successful future will have to focus intently on consumers, innovate and experiment continually and be prepared to make significant investments.

Although this individualised media world is steadily coalescing around the consumer, the transformation isn't yet complete. For example, PwC's research shows that consumers are still dissatisfied with the recommendations from their streaming services. Real challenges surrounding the treatment and ownership of personal information are spurring regulators around the world to catch up, and put pressure on companies to adapt to new privacy regimes. Finally, it is possible that issues relating to the safety and privacy of personal data will limit the ability of E&M companies to individualise the media experience going forward. Trust remains at a premium.

In this report, we delve into the E&M landscape through the lens of the *Outlook*. And the picture that emerges is clear: this time, it's personal.

2

Personal space: Shifting behaviours reshape the E&M landscape

We can see the shift to personalised experiences all around us in the fast-changing human behaviours involving E&M. To be sure, there are still plenty of common experiences. In 2018, spending on tickets at movie theatres was up 5.2% from the year before, and it is projected to rise at a 4.3% CAGR through 2023. According to FIFA, some 1.12bn people — one of every seven people on the planet — watched the tense World Cup final between Croatia and France live in the summer of 2018. But increasingly, the prevailing trend of consumption, especially in markets where broadband penetration is high, is for people to construct their own media menus and to consume media at their own pace.

Isolation — or socialisation?

What do E&M consumption behaviours look like? On one level, today's consumption appears more isolated. People wearing the ubiquitous Apple AirPods — whether on the street, on a train or in an elevator — seem to exist in a hermetically sealed bubble. Movies can be watched by an audience of one on a laptop or phone. On-demand streaming allows viewers to start and stop political debates, or the final episode of a popular series, when they choose.

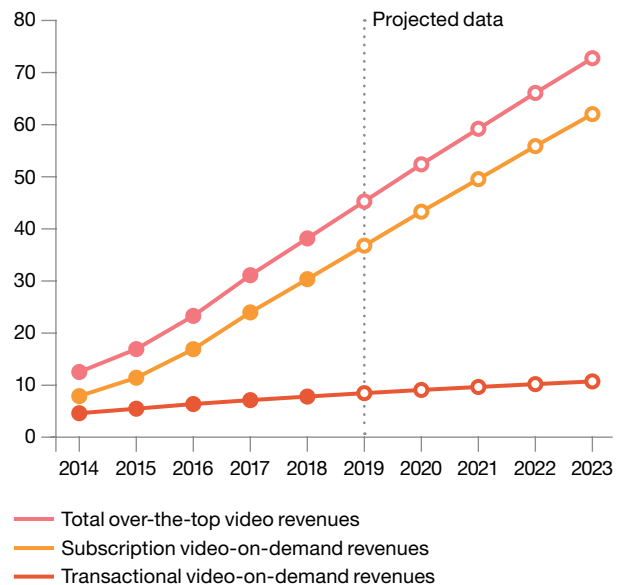
However, there's a dimension of personalisation that is also inherently social. Many people use media as an

enabler for social interaction, including sharing playlists on Spotify, contributing to Chinese danmu 'barrage videos' by commenting on live television shows, and engaging in multi-user battle royales with fellow gamers around the globe. Others employ media as a substitute for social interaction, utilising technology and E&M to create their own immersive environments and worlds as a way to alleviate loneliness. The way teenagers have embraced battle royale games like *Fortnite* can reflect either purpose — or both.

From passive to active consumption...

Whatever role media experiences play for individuals, the direction of travel is the same. Consumers are moving towards the creation of a new type of personal space at the centre of their own carefully selected universe of media choices and experiences, one which is continually informed and shaped by AI and algorithms that recommend new content to them.

Global OTT video revenues by category (US\$bn)



Source: PwC Global Entertainment & Media Outlook 2019–2023, www.pwc.com/outlook

At root, this is a shift in consumption behaviour that has long been anticipated and is finally reaching reality. Advances in technology and service offerings are enabling people to move from passive to active consumption, from linear to on-demand — and not just of individual pieces of media, but of media as a whole.

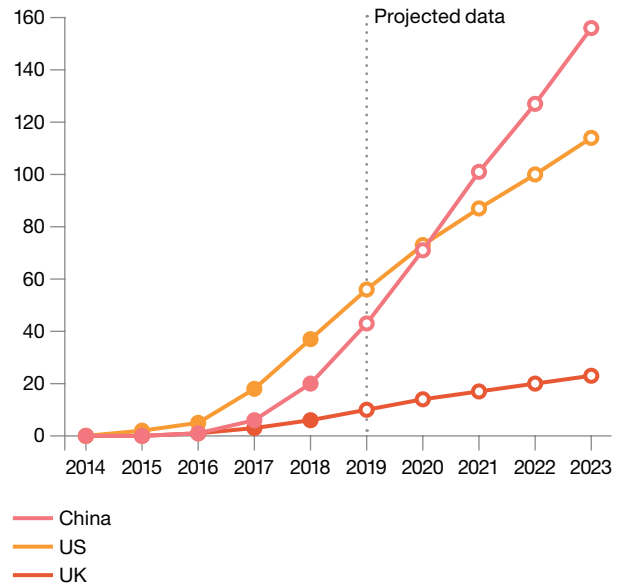
...as OTT and smart speakers go from strength to strength...

There are many signs of this change. One is the trend for consumers to reject the bundles of channels sold to them by cable or satellite companies and instead construct their own ad hoc bundles made up of various OTT services — buying several complementary streaming offerings to cover the full gamut of their tastes and interests. Although it is still dwarfed by cable and satellite spending, global OTT revenue hit US\$38.2bn in 2018, and is forecast to almost double by 2023.

The great unbundling is happening worldwide. Disney's OTT platform Disney+, slated to launch in November 2019, will target mainstream audiences with a massive family-friendly content portfolio. In India, subscription television service Tata Sky is now available on mobile phones, joining a rush of broadcasting houses and content creators in the country offering OTT services, including national powerhouse Balaji Media. In Japan, the US-based OTT startup DAZN now controls the rights for Japanese football and baseball. All of these companies enable active consumption by allowing people to curate their own bundles and then stream content at their convenience.

Further indications of the move to active individualised consumption can be seen in the rise of the smart home and the connected car. In the next five years, the smart speaker will consolidate its position as the central device in the smart home; device ownership is set to rise at a 38.1% CAGR to hit 440mn devices globally in 2023. In early 2019, Apple debuted its HomePod device in China, becoming the first of the large US-based smart speaker companies to launch a product there and the only firm offering a voice assistant in Mandarin. Although the US was the largest market for smart speakers in 2018, it is likely to be overtaken by China in 2021, which will be home to 156mn devices by the end of the *Outlook* forecast period in 2023. As they proliferate, smart speakers will become the conduit through which the burgeoning industry of voice-related media — podcasts, music, news and ads — will be pulled by individuals or pushed by companies to audiences of one.

Global top three markets for smart speakers by number of devices (mn)



Source: PwC Global Entertainment & Media Outlook 2019–2023, www.pwc.com/outlook

...and input devices give way to voice

The proliferation of this hardware will make voice one of the new frontiers for competition. Media experiences activated by voice will be more active and personal. Spoken language is intuitive and interactive, brings humans closer to machines and is couched in personal terms. It's not uncommon for people to thank their smart speaker for delivering their favourite content — something that doesn't happen with mobile devices. If they haven't done so already, businesses need to start thinking about a voice strategy.

The final piece in the jigsaw puzzle of personalised media will be the rollout of 5G — the revolutionary next generation of cellular mobile communications technology. We'll take a closer look at 5G's impacts when we zero in on new technologies, on page 13. Suffice it to say that with the smartphone already established as the world's most popular way to access the Internet, the advent of 5G will provide another fillip for personalised media consumption. In effect, 5G will establish new pipelines through which streams of data and content will flow to individual users.

3

Implications for businesses: One size does not fit all

The move to personalised, active E&M experiences has profound implications for how companies go about framing and developing offerings. At the same time, it will impose new responsibilities and, occasionally, limitations, on how they market and present their products and services. These new dynamics apply across different platforms, content types, and digital and physical experiences — though their ultimate impacts can vary among different geographic markets. Even as companies address global markets, it is clear that one size — and one strategy — does not fit all.

Having it all — for a price

In some instances, companies are meeting the expectations of consumers by offering the widest possible array of content for consumption. One of the most marked trends emerging in response to consumers' changing behaviour and evolving technology concerns paid-for E&M offerings with unlimited usage — the 'all-you-can-eat' model. Such models are helping spur the global boom in data consumption. As data becomes available at lower cost, and as more content is produced and devices proliferate, companies are using quantity as a basis for competition. Although the instances that spring most readily to mind are digital streaming services such as Netflix and Spotify, this competitive tactic is also appearing in other media. The Apple News+ app, launched in March 2019, offers readers access to the contents of 300 magazines, newspapers and digital publications for a fixed monthly fee.

Recognising that not all consumers wish to pay for unlimited data and content, companies in several markets are offering differential pricing that goes well beyond either the traditional 'freemium' paid-for or ad-funded models. For example, in August 2018, Alibaba in China rolled out a premium "88 VIP" membership package. It offers exclusive benefits to members across the Alibaba ecosystem, covering commerce, entertainment and local services. MoviePass, which started out pitching US movie fans unlimited film admissions for a low monthly price, has shifted to a subscription system offering three tiers of benefits, at prices that depend in part on the subscriber's location.

Companies like Alibaba and Amazon are creating increasingly pervasive ecosystems of which media is only one element. They use the attraction of E&M offerings to provide a point of entry to multiple services used in consumers' daily lives. And they can provide consumers of other services seamless and easy access to their E&M offerings.

Local dynamics increase in importance...

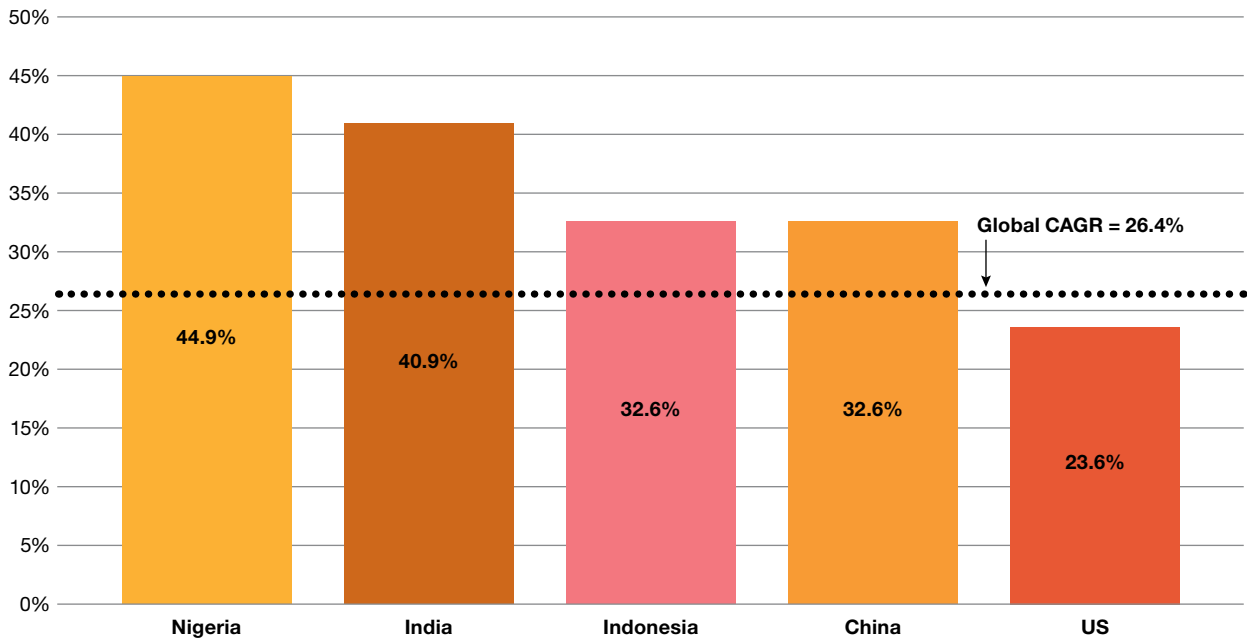
As they segment individual markets by consumer preference, companies are also learning to apply different models to individual countries. Streaming giants like Netflix and Amazon have experimented with pricing models for individual markets, in recognition of differing regional economic circumstances and consumer habits. Although Japan and the US are both wealthy countries, Amazon Prime, a service that allows both unlimited free delivery of goods and access to video content, costs US\$35 a year in Japan, less than one-third of the price for US consumers.

In less developed markets, there's a trend towards companies offering tiers of payments for different services, and competing on the basis on affordability — mirroring the way consumer packaged goods companies develop product formats that customers with low incomes can afford. In Southeast Asia, telecommunications companies often bundle together data, Internet and OTT services in an affordable package. For example, PCCW's OTT video service Viu bundles Japanese and Korean content and data.

Global appetite for data

The volume of data consumption is soaring, spurred by the rollout of 5G and powerful growth in developing markets.

Data consumption growth rates in selected countries (2018–2023 CAGR)



Source: PwC Global Entertainment & Media Outlook 2019–2023, www.pwc.com/outlook

Asia Pacific —

dominated by the Chinese market — will grow its share of total global Internet advertising revenue by 2023, while North America's share will drop from 41.9% to 39.3%.

There are also stark differences among markets in terms of which segments of media are growing strongly and which are performing less well, often reflecting factors such as disposable incomes, the availability of reliable superfast broadband and the relative maturity of markets. The projected growth rate of digital advertising in Nigeria through 2023, for example, is almost three times that of Germany. Such contrasts are increasingly being seen among developed markets as well. It was once assumed that where the US led in E&M revenue trends, the rest of the developed world would eventually follow. But data in this year's *Outlook* suggests that this generalisation no longer applies. As the US saw strong growth in cinema box office revenue in 2018, Western Europe saw a decline. In video

games, the ongoing global trend is for social and casual game revenue to dominate revenue for traditional titles. This shift occurred on a worldwide scale in 2017 — but here the US is a laggard; traditional video game revenue, which accounted for nearly 60% of revenues in 2018, will still take the majority (although declining) share into 2023.

Indeed, never before has the global E&M market so firmly resisted easy characterisation, even as the world becomes wired more closely together. Which means business strategists cannot get away with relying on sweeping generalisations: they need granular assessments and tailored approaches that take account of country-specific factors. As businesses approach billions of consumers of individuals, they must also regard scores of geographical markets as discrete markets. At a time when companies are seeking unparalleled breadth through megamergers, they must seek unparalleled depth of local insight.

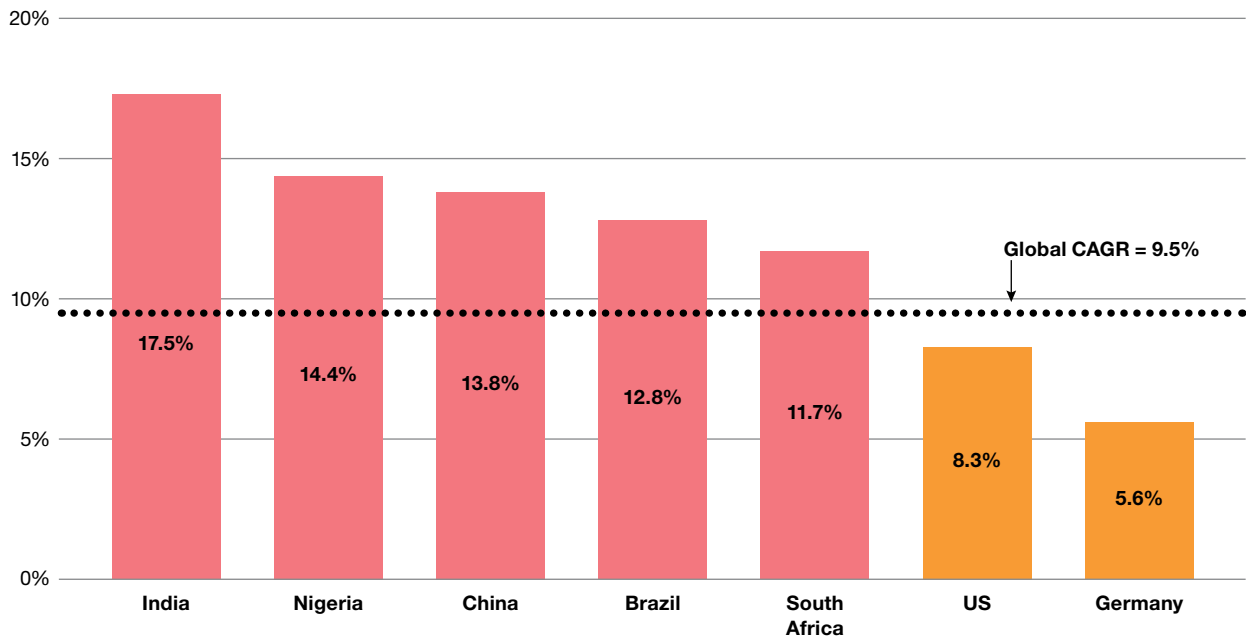
...as fragmentation continues...

The rampant expansion of individual choice presents another challenge — and perhaps an opportunity — for E&M businesses. As media platforms proliferate, they

Global divergence

Spending on digital advertising is powering ahead in several key developing markets.

Projected CAGR 2018–2023



Source: PwC Global Entertainment & Media Outlook 2019–2023, www.pwc.com/outlook

are making it increasingly difficult and expensive for people to curate their own set of content experiences. To bring together all the content they want — sport, movies, lifestyle, complete TV series — consumers often have to subscribe to a variety of services. For example, in the US, professional American football games are divided among Amazon Prime, Fox, CBS, ESPN and the NFL Network, each of which must be watched on its own app or channel.

This fragmentation is creating complexity for consumers, content creators and marketers. Although people may download dozens of apps onto their phones, they spend the vast majority of their time on only a small number of them. Recent PwC research shows that many consumers now wish that all their video needs could be met through a single platform and bill.

In October 2018, as part of its ongoing research, PwC surveyed 2,016 consumers in the US between 18 and 59 with annual household incomes above US\$40,000. We asked about their motivations, gripes and hopes involving video content — and their responses were illuminating.

As our report *A new video world order* reveals, cord-cutting continues to increase, with just 67% of consumers being pay-TV subscribers, down from 73% in 2017 and 77% in 2016. Asked about the ongoing fragmentation of streaming platforms, more than half (51%) said they wished they could pay just one monthly fee for all the video content they watch, regardless of the platform or service, and 50% said they hoped that all video content would eventually be available in one place. The proportion hoping for a one-stop content source was 64% among ‘fanatics’ — the keenest consumers, who want access to an endless library of content anytime, anywhere, on their terms — but slumped to just 35% among ‘engagers,’ who want to engage actively with content and who are more likely to be gamers.

In 2018,
OTT video revenues were just 18.6% the size
of global TV subscription revenue. By 2023,
they'll jump to 35.4%.

The rising complexity also poses a business challenge. The advent of 5G mobile connectivity will drive the emergence of new kinds of bundles, including 5G packaged with subscriptions to OTT services. Companies have to decide whether they will pursue a business model that is ad-free, ad-lite or subscription based. As content becomes the force that attracts and retains consumers, OTT providers have entered an expensive arms race to develop original shows and obtain rights to sporting events. Many streaming video-on-demand services have failed because they couldn't acquire sufficient numbers of customers.

The 5G challenge

The impact of 5G will extend to virtually every industry, from manufacturing to healthcare, from retail to transportation. E&M companies will be among the earliest to incorporate 5G into their offerings and business models. A recent study from PwC's Strategy& on how companies will generate revenues from 5G — *Making 5G pay: Monetizing the impending revolution in communications infrastructure* — highlighted how operators will partner with OTT service providers to bundle their services with connectivity subscriptions. This bundling is sometimes provided with an explicit charge and sometimes without — for example, by offering specific streaming services not metered against the customer's data bundle. As 5G take-up expands, the opportunities for such collaborations will also continue to expand.

...creating new opportunities for aggregators

Going forward, the fragmentation across platforms and content streams may open the way to a new kind of aggregator. Despite the innovations that Netflix and Amazon have brought to the TV market, they've also created a fundamental problem that consumers desperately want solved: there's no single place to find something to watch. It is difficult to envisage how a single company can own the full personal experience of tomorrow's consumers. Which is why new forms and types of aggregation are emerging as a critical battleground.

Traditional TV operators and telecommunications companies have a window of opportunity to address the growing fragmentation — before Amazon, Apple and Google inevitably bring their own solutions to market or a third party steps in to fill the need.

Incumbent TV providers are taking action. In February 2019, the UK's BBC and ITV **announced plans** for a joint streaming service called BritBox, offering a wide array of

British video content for US\$6.99 a month. At the same time, consolidation in the media industry itself is leading to the creation of what might be called new aggregators. Disney, having recently acquired 21st Century Fox, will be able to include in its Disney+ streaming platform all the content from the Disney, Pixar, Marvel and Star Wars universes. WarnerMedia's **streaming service** will include HBO, CNN, the various Turner channels and shows from the company's holdings, such as *Friends*.

In emerging markets, where broadband penetration remains low, popular apps deployed for one purpose — say, e-commerce, or ride-hailing, or messaging — have been aggregating in another way, by adding an array of new functions for their consumers, including content. These so-called superapps are becoming players in the E&M business. Bukalapak, an Indonesian e-commerce platform that has reached unicorn status, offers video streaming. Line, a free Japanese messaging app with well over 700mn users, now includes comics, a video-on-demand service and news programming. The common thread? Meeting consumers' demand for personalised media experiences through strategies that were undreamt of when these companies were set up.

Global OTT

revenue will increase at a 13.8% CAGR to US\$72.8bn in 2023, with its growth supported by the rising consumer appetite for video-streaming services, consumption increasing in mature markets and rapid expansion in less-developed regions.

4

New touch points: Meeting consumers where they are

As media and e-commerce experiences become more personal, gratification for consumers is becoming more instant and immediate. In response, content creators and distributors are devising new ways to appeal to consumers as individuals, and marketers are busy figuring out how to meet individuals at the point of consumption — and guide them instantaneously towards purchase. The result is a rapid expansion of and evolution in consumer touch points.

Want it? Buy it.

One example of instant gratification is the rising adoption of voice assistants at the heart of the smart home, and the related rise of v-commerce, or voice-powered shopping. In combination, these technologies are taking convenience in the home to a new level, enabling a consumer to order dinner or detergent from the sofa without so much as touching a handset or keyboard. As Google Assistant expands to an increasing number of devices within the home, including smart TVs, the potential of v-commerce is growing apace.

Another manifestation is the ‘click-and-buy’ advertising model popularised by Amazon, which enables merchants to target their ads to customers’ search terms. In India, there’s a growing trend for digital ads to be placed where people are making buying decisions on Flipkart and Amazon, the country’s dominant e-commerce platforms. Consumers have become sufficiently acclimatised to the Internet to be able to seek out an increasingly targeted and direct type of engagement with the brands, products and experiences they want. And that often happens not

on the open Internet, but inside an app or on a company’s e-commerce site. Although intermediaries such as Internet search engines still play a major role in helping consumers search for products and services, they’re gradually starting to be sidelined.

In a further move to engage consumers in the moment, advertising is becoming more shoppable. More and more consumers (especially younger consumers) are turning to social media platforms not just to window-shop but to buy, as they watch tech enthusiasts unbox the latest gadgets, beauty vloggers show off their latest ‘hauls’ and celebrities walk the red carpet wearing the latest fashions. Making it easier for viewers to buy items by simply clicking on a social media post is a logical next step. Alibaba is a **global leader in interactive** shoppable video, helped by China’s Singles Day now rebranded the Global Shopping Festival. Shoppable ads are well-established on YouTube, Pinterest, Instagram and Facebook. In March 2019, Google **said** it was starting to test shoppable ads on search results on Google Images.

Brands go shoppable

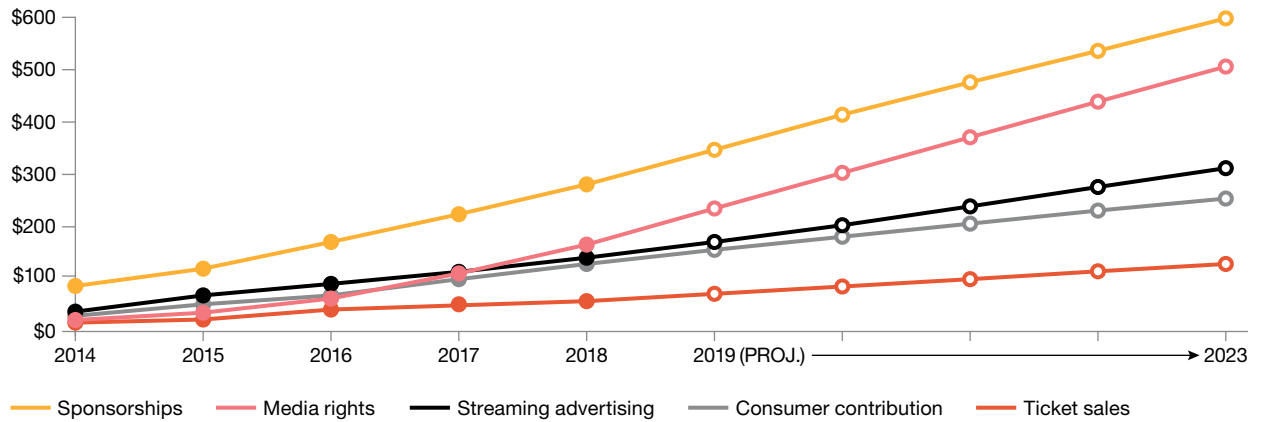
Many high-profile brands are seizing the opportunities presented by shoppable advertising and media. Global swimwear brand Speedo creates shoppable content such as interviews with athletes and lifestyle articles, with products integrated seamlessly into them. UK retailer Marks & Spencer has pioneered the use of shoppable Instagram in its industry, and used it in September 2018 to promote its ‘must-have’ satin blouse and checked blazer in a campaign that also used shoppable Facebook.

Engaging consumers on social media requires marketers to go beyond advertisements. The rise of influencers on social media bears witness to the broader theme of personalisation. Without institutional backing, individual content creators can cultivate their own audiences on Instagram or TikTok, form strong individual bonds with their followers and then monetise those bonds. More and more brands are working with influencers to promote shoppable content. The marketing infrastructure, including

A new sports marketing platform

Esports is catching on as a venue for advertising and sponsorships.

Esports revenue worldwide (US\$ millions)



Source: PwC Global Entertainment & Media Outlook 2019–2023, www.pwc.com/outlook

talent management agencies, is growing up around influencers. However, the influencer channel has become more tightly scrutinised since the Fyre Festival — the ‘greatest party that never happened,’ which was heavily promoted by influencers and the collapse of which became the subject of duelling documentaries on Netflix and Hulu. As it develops further, the industry will have to grapple with ethical and regulatory concerns. In January 2019, the UK Advertising Standards Authority **said** it had reminded hundreds of social media influencers about the need to disclose which of their messages were paid for. Questions will also arise as to whether influencers can and should be held accountable for the messages they broadcast.

Esports

is the **fastest-growing area** of the video games market, set to cross the US\$1.0bn threshold in 2020.

Finding individuals where they are

Part of the evolution will be for marketers to find consumers in the places where they are choosing to spend their most precious resource: time. Esports and gaming are two areas in which individual consumers control their own journey and consume and engage at their own pace and discretion, often as audiences of one. Accordingly, these segments are emerging as important new arenas for content creators and marketers. Contenders in these segments are learning from the success of players such as *Fortnite* and its imitators. And esports leagues, which have shown the ability to aggregate large audiences, are turning individual players into groups of viewers.

The success of esports has attracted traditional media companies and telecom companies. In October 2018, a group of telecom companies in Asia Pacific — including Singtel, Optus, Airtel, AIS, Globe and Telkomsel — signed a **memorandum of understanding** to grow the esports ecosystem in the region. The companies will continue to collaborate in such areas as mobile payments and in supporting the growth of esports content creation and distribution.

Fortnite: Winning the battle for attention

In January 2019, Netflix said that *Fortnite* was a bigger competitor for attention than the likes of HBO or Hulu. The astonishing success of the battle royale genre in 2018, spearheaded by *Fortnite*, has reshaped the strategies of leading video game companies. Although the base game remains free, *Fortnite* also provides a stream of fresh freemium content for all players, while encouraging purchase of a 'battle pass,' which unlocks additional content. This has resulted in a highly engaged and loyal community of players who are comfortable with this proposition's transparency and value. Both *Call of Duty* and EA's *Battlefield V* adopted similar models in 2018, and many more are expected to emerge from 2019 onward.

Audio consumption is another segment that's booming in a more individualised environment — one in which consumers are spending an increasing amount of their time. This trend is reflected by the continuing growth of new platforms and widespread M&A activity. The rise — or rather resurgence — of voice is being propelled by several factors: the growing usage of smart speakers, the emergence of the connected car, the power of music-streaming platforms and the rapid rise of podcasts as a compelling new genre. In 2018, global recorded music revenues rose by 7.7% from 2017, reaching US\$26.7bn. Digital music-streaming revenues, which grew 28.8% in 2018, were the largest contributor to growth.

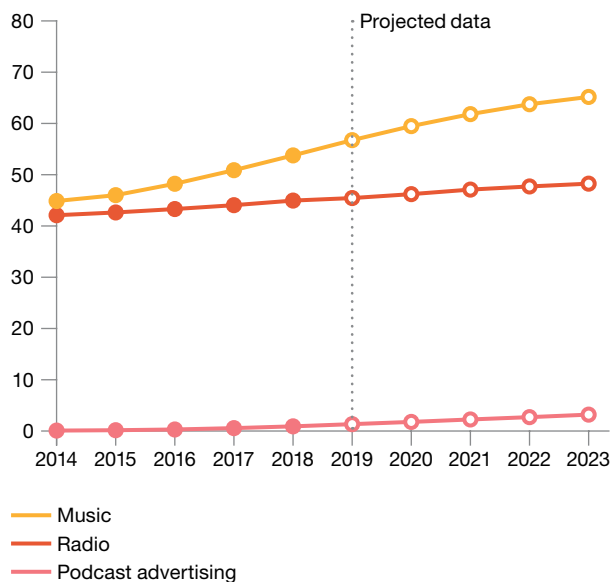
To capitalise on these growing opportunities, the major players will increasingly redefine themselves as audio providers across all genres — becoming one-stop shops for consumers browsing music, radio and podcast content.

This was the strategy adopted by SiriusXM and Pandora, whose US\$3.5bn merger created the world's largest audio entertainment company. A similar one-stop shop approach has been adopted by the UK's public broadcaster, the BBC, which launched its own audio platform in late 2018, BBC Sounds. The app packages music, radio and podcast content into one service and offers listeners bespoke recommendations based on their listening habits. China has also joined the surge in audio consumption: research by Nielsen and online radio platform Qingting FM (Dragonfly FM) found 661mn people in China listened to digital audio in 2018, some 82% of the country's online population.

Blending the power of OTT and e-commerce

The variety and number of places where E&M companies must court their consumers continues to expand. The

Global music, radio and podcast revenues by sector (US\$bn)



Source: PwC Global Entertainment & Media Outlook 2019–2023, www.pwc.com/outlook

continuing personalisation of E&M channels means that marketers will need to become more sophisticated in meeting and engaging consumers wherever they are. The next leap forward in OTT services, for example, could be integration with e-commerce. There's long been an expectation that consumers would be able to watch a movie and buy, in real time, the sunglasses that an actor is wearing.

More generally, in an increasingly personalised world, analytics and data insights will be the core driver of effective, addressable advertising. Existing data sets on demographics, spending patterns and interests — namely those typically found on platforms such as Facebook and Google — are useful. The next step forward, however, will be to overlay the new level of insight into such factors as affordability and ability to pay. As consumers' attention migrates into personally curated islands such as OTT channels, apps and streaming platforms, and away from easy-to-track environments such as Internet browsers, marketers will have to figure out how to construct nuanced and detailed portraits of potential customers.

5

Technology advances: The new era of personalised computing

In the 1980s, the great leap forward was the advent of the PC — the personal computer. In the 2020s, amid the fourth industrial revolution, the next significant evolutionary step may be personalised computing. That is to say, the smart use of data algorithms and AI will spur E&M companies to enhance the digital products and services they offer, or to introduce entirely new ones.

AI is on the rise...

Today, few consumers fully understand AI and its potential benefits. Nevertheless, it will increasingly permeate their world. In media, AI's understanding of people's individual tastes and consumption history will enable them to discover the content they find most compelling — preferably across many different services — without even having to look for it.

This is something people want, and feel they're not getting. As revealed by PwC's research report *A new video world order*, there's a relatively high level of dissatisfaction with the AI-powered recommendations that consumers currently receive from their video-streaming services. That's why consumers still prefer personal reviews and recommendations from real people.

More than one-third of consumers (36%) believe that finding content on streaming platforms needs to be easier, and only 21% think their streaming services know what they want to watch better than they do themselves. Consumers are also frustrated at how reactive — not predictive — today's algorithms are; 30% say their streaming services recommend the same content over and over again. A similar frustration is expressed by Internet users, when, for example, they find themselves bombarded with advertisements for a particular hotel — just after they have booked a room.

...boosting the value of personal data

Whether AI is being used to target addressable advertising or to enable better discovery and recommendations, its raw material is personal data. So the value of this personal data is rising hand in hand with AI. People are also increasingly aware that providing their own personal data — whether inadvertently when they browse the Internet or deliberately when they sign up for services or fill in a questionnaire — generates value for the other party. In a world in which everybody has a different personal E&M media consumption profile, and that profile determines the extent to which services can be tailored to individual needs, the importance of gathering data rises. As we move forward, data — and not content — will be king.

Want to sell your data?

A growing number of companies are now enabling consumers to be rewarded for providing their data to third parties. These include CitizenMe, which gives instant cash rewards to people who join its community each time they exchange their anonymised data with businesses, and Wibson, which buys people's data in exchange for 'Wibson points' that can be redeemed for services such as Spotify and Uber. Personal data security platform Digi.me helps people aggregate their own data and share it privately with apps and companies that agree to adhere to certain ethical standards.

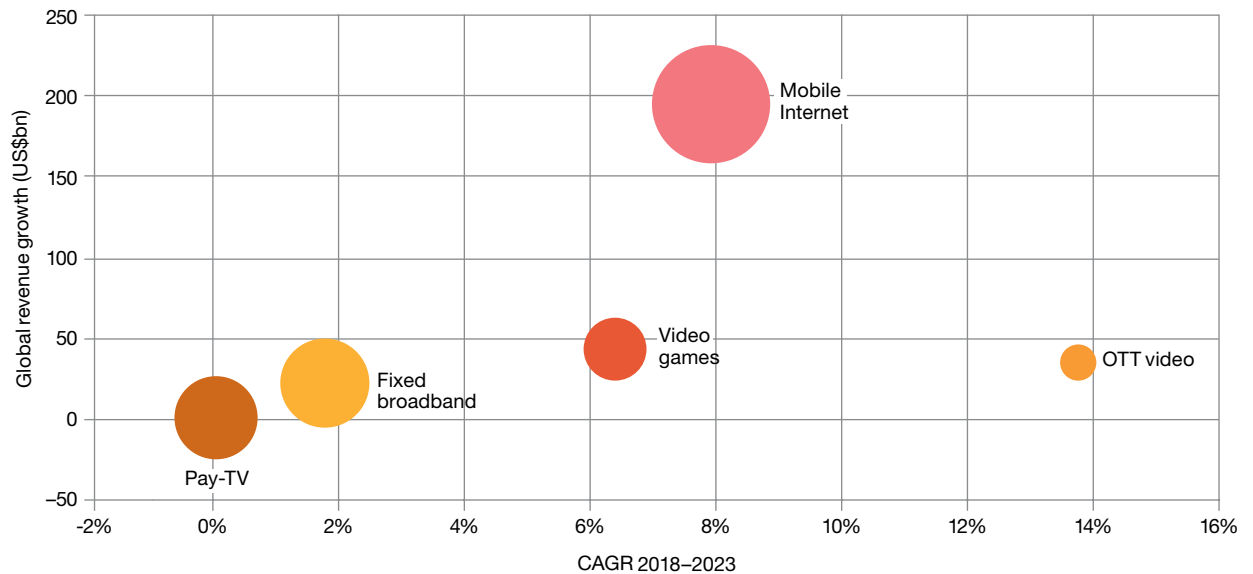
One effect of the rising value of personal data has been to intensify the regulatory focus on data privacy and protection, a point we examine [on page 16](#). However, another effect is the potential for consumers to monetise their own data by selling it as an asset.

5G: Impact throughout the TMT value chain

A further key technological advance with major implications for the technology, media and telecommunications (TMT) sector — and one that's a recurrent theme of this report — is the next-generation 5G communication standard. Rolling out now, and set to succeed the 4G standard over the next few years, 5G offers an exponential improvement in functionality over 4G, with speeds that are 100 times

Pools of growth in TMT

New spending will flow into rapidly growing segments like OTT video and video games.



Source: PwC Global Entertainment & Media Outlook 2019-2023, www.pwc.com/outlook

as fast and capacity that is 1,000 times larger. The results will be mobile networks that offer far higher throughput and reliability, much lower latency (the time taken for a signal and response), reduced energy usage and massive connectivity for devices.

5G's impact will be felt along the entire TMT value chain for the next decade, spurring powerful growth in spending on mobile Internet. It will hasten existing trends towards personalisation, making it easier, more convenient and cheaper to access more entertainment and media on phones and other mobile devices.

5G's impacts are already being felt. For example, spurred by the prospect of 5G, cloud gaming is now experiencing a resurgence powered by rising investment from companies including Intel, Microsoft and Nvidia. Google recently unveiled its Stadia cloud gaming platform, and telecoms including AT&T, SK Telecom, Verizon and Vodafone have signed partnerships with other cloud gaming providers. It isn't hard to see why: our *Outlook* forecast indicates that video games has perhaps the most compelling combination of growth and scale of any digital consumer revenue line over our forecast period to 2023. When 5G subscriptions reach the critical mass required by

developers in the early to mid-2020s, newer applications that are more reliant on 5G will emerge and gain popularity. These offerings will be delivered whenever a consumer wants and wherever he or she happens to be, and the effect will be an unprecedented combination of control and personal choice.

4G and 5G

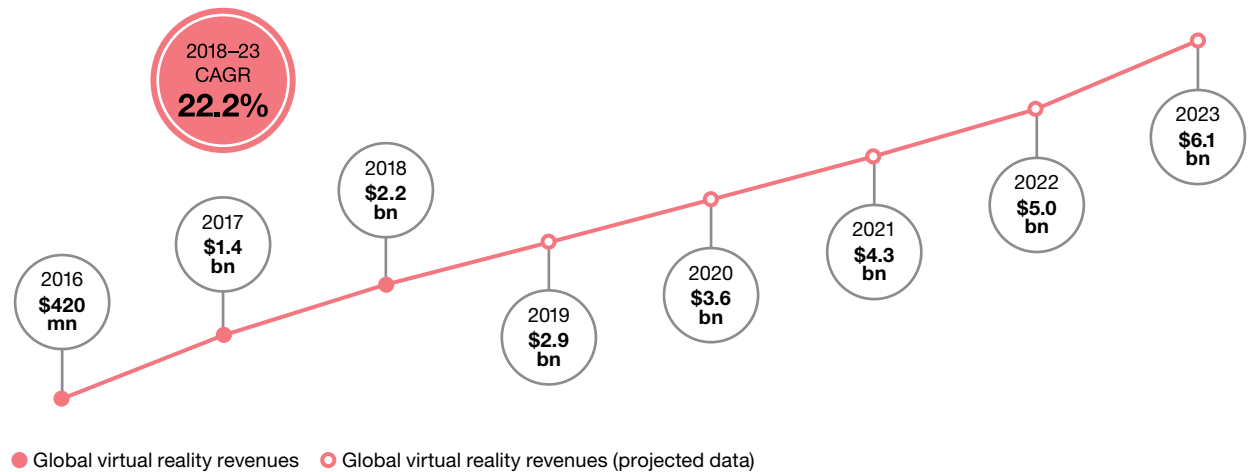
services will account for **more than 90% of mobile subscriptions** in 32 countries in 2023.

VR gains scale — spurred by 5G

5G could finally bring critical mass to a segment long seen as a medium of the future: virtual reality (VR). VR technology is entering its fourth year as a serious commercial proposition, but it has so far failed to captivate consumers to the extent that many initially predicted. Its adoption remains low in relation to the installed base of game consoles and PCs, dampened by high costs, the difficulty of setup and a shortage of appealing content.

Virtual reality, actual growth

Global VR revenues (US\$) in 10 key markets



Note: The markets are US, Japan, China, South Korea, UK, France, Germany, Russia, Italy, Spain.

Source: PwC *Global Entertainment & Media Outlook 2019–2023*, www.pwc.com/outlook

To date, VR and augmented reality (AR) have enjoyed their strongest take-up in B2B applications in industries such as resources and energy. Now, though, VR is surging in the consumer space — and 5G promises further stimulus. The trigger for the recent uptick in sales of VR headsets has been the emergence of portable dedicated, or stand-alone, devices. The next generation of stand-alone VR headsets looks to be spearheaded by the US\$400 Oculus Quest, which promises to offer immersive experiences similar to those available on Sony PlayStation VR and HTC Vive, but in a more affordable, all-in-one form. If it delivers, Oculus Quest could provide a much-needed boost to VR adoption in 2019 — with further momentum in many markets coming from the rollout of 5G services.

Another sign pointing to a bright future for VR is the emergence of industry cooperation initiatives. Examples include the Khronos Group, which is championing an open standard called OpenXR that aims to simplify AR and VR software development. The consortium includes Google, HTC, Microsoft, Oculus, Nvidia and Valve. Having acknowledged that the tide of VR is rising, companies are now focussing on growing the ecosystem of VR services, platforms and hardware, and are being more realistic about where they can really add value — be that with unique hardware, new business models or social platforms.

Video games

are the **primary driver of VR content revenue**, accounting for 53% of all VR spending in 2018.

6

Trust and regulation: Seeking personal data hygiene

As consumers push to be at the centre of their own world of media experiences, it is unavoidable that their personal data — whether it's the music they stream or the products they buy — will become a central player in the process. If a person in Connecticut purchases a movie ticket for cash or sends in a check for a magazine subscription, the provider and distributor of the content will obtain almost no information about the customer. In the digitised world, however, billions of small transactions and activities are captured and tracked as a matter of routine. In some senses, as we watch videos, they're watching us back.

Consumers and, increasingly, political leaders and regulators are starting to grasp the risks associated with the continual provision of personal data. It may be hacked and fall into the wrong hands. If a smart speaker is listening attentively to someone's commands, it may also be listening in on their supposedly private conversations. Companies may share their users' data with third parties, or inadvertently let it spill out into the open, or use it to bombard consumers with marketing pitches. This is why the maintenance of personal data hygiene is becoming a key factor in the overall health of the E&M ecosystem.

Trust has entered the boardroom...

In recent years, this concern has shaped the trust and regulation agenda, which has become increasingly centred on issues of privacy, the protection of personal data and

the protection of children from harm online. This agenda has been heightened by scandals surrounding the hacking and sharing of data, and by widespread fears over the use of personal data for political purposes. The ownership of data is a further issue: currently, data on a platform is generally owned by the platform.

The concept of trust, or the lack thereof, has become a strategic theme for many companies in the E&M universe. In this highly connected world, where sentiment can spread at lightning speed, a single incident can cause far-reaching damage to a brand's reputation. Every interaction with a customer — online or offline, inside an app or on the Internet — has the potential to build or damage trust.

One illustration of the level of public concern has been the success of data privacy-focussed companies such as [SuperAwesome](#). The company's 'kidtech' technology enables a zero-data Internet, preventing children from being identified online. SuperAwesome's technology is now used by leading children's brands and children's content owners around the world. More broadly, segments of the digital advertising market are moving away from the blunt ad-targeting that consumers are coming to regard as too personal, and focussing on delivering not-too-personal ads with compelling copy and high relevance to the context.

Digital addiction: Are we online too much?

Alongside worries over the misuse of data is concern over the risk of digital addiction — an issue that's increasingly recognised as comparable to dependency on alcohol, tobacco and other substances. The World Health Organization included "gaming disorder" in the International Classification of Diseases in 2018, and Google has begun to focus on "digital well-being." Although digital addiction is especially prevalent among video gamers, nobody is immune to the risk: the UK Internet addiction site [ltstimetologoff.com](#) says UK adults spend an average of 8 hours, 41 minutes, a day on screens — more time than they are asleep — and UK children 6 hours, 30 minutes.

...as individuals rethink how they relate to companies

At heart, all these issues come down to the norms and standards of how companies relate to individuals, and how individuals relate to them in return. If the relationship is equal and open on both sides, trust is created, making people more willing to share their data. Given consumers' close relationships and frequent interactions with E&M and technology companies, building this trust is especially vital for these businesses.

PwC's *Global Consumer Insights Survey 2019* suggests that the way forward is to treat consumers' data with respect and deliver value in exchange for it. The findings show that people do increasingly trust the digital world: more than half (51%) of more than 21,000 survey respondents worldwide said they paid bills and invoices online in 2018, and 54% streamed movies and TV twice a week or more. However, **other PwC research** shows that 71% of consumers would stop doing business with a company if it gave away their sensitive data without permission.

A further factor is that concern and awareness over data privacy vary widely by geography: it's a far bigger issue in Germany, for example, than in the Middle East. Even in places where consumers don't appear to care, though, businesses can't ignore it. Norms and expectations are evolving rapidly; a practice that was accepted as commonplace yesterday may be banned tomorrow.

Regulators' responses to privacy breaches...

The bottom line is that if companies don't adequately protect consumer data, or if they use it for purposes consumers haven't agreed to, they risk suffering not only a backlash from consumers but also severe consequences from regulators. In January 2019, French data protection watchdog CNIL fined Google a record €50mn (US\$56mn) under the European Union's General Data Protection Regulation (GDPR). Three months earlier, the UK Information Commissioner's Office (ICO) fined Facebook £500,000 (US\$658,000) for "serious breaches of data protection law."

...may start to converge globally

Fines such as these, and the related negative publicity, appear to have little impact on the behaviour of consumers. Companies don't want to continue living under the shadow of regulatory sanctions, but they need greater certainty — which is leading them to press for greater convergence of data protection regulations worldwide. In March 2019, Facebook chief executive Mark Zuckerberg **called for** regulators to play a "more active role" in establishing

rules for the Internet. He also advocated the creation of a "global framework" for data privacy regulation, modelled on the GDPR.

“New privacy regulation in the United States and around the world should build on the protections GDPR provides. It should protect your right to choose how your information is used — while enabling companies to use information for safety purposes and to provide services. It shouldn't require data to be stored locally, which would make it more vulnerable to unwarranted access. And it should establish a way to hold companies such as Facebook accountable by imposing sanctions when we make mistakes.”

—Facebook chief executive Mark Zuckerberg, March 2019

At a global level, action on privacy is coalescing around an evolving and relatively common standard. In 2018, India introduced the Personal Data Protection Bill, which governs the way E&M companies can collect and analyse customers' data. In August 2018, Brazil enacted its own General Data Protection Law, slated to go into effect in February 2020. In an increasingly fragmented and personal world of media, we should not be surprised to see regulation converge. Greater certainty and consistency would benefit everyone — consumers, companies and regulators — and ultimately boost the trust on which businesses depend.

7

Conclusion: Taking it personally

The personalisation wave, fuelled by technology and evolving customer behaviour, shows no signs of abating. If anything, it will likely be amplified by the forces of technology, scale and aggressive investing and competition. Personalisation has several implications for leaders of organisations that are participating in the dynamic E&M sector. All players must evaluate the optimal route to navigate the new landscape — a task made more challenging by the rapidity and degree of change. Still, there are some clear first steps that all should take.

Know your customers. Effective and engaging personalisation is becoming table stakes. Companies that fail to offer consumers ads or shows or articles that are relevant to them — or that overwhelm their customers with material they aren't interested in — may alienate them. But the continued growth of OTT services and apps, on the one hand, and new, stricter privacy regimes on the other hand, will pose a challenge to traditional methods of gathering information on consumers' behaviour. Companies eager to learn about customer preferences will therefore have to learn to look to new data sets, new methodologies and new types of contextual behaviour. Call it anthropology or the next generation of data science, but personalisation pushes companies to strive to recognise and understand consumers as complex individuals — and on their own terms.

Evolve your business. Many traditional media companies are realising that the business and operating models that contributed to their success in the past are no longer fit for the future. In order to compete effectively going forward, companies need to be nimble and act quickly. For many, the answer will lie in transformative efforts. For some, it may be deciding to climb the value chain from, say, content aggregation to content production. For others, it may mean using targeted acquisitions. For any of these evolutionary efforts to succeed, they must be informed by a relentless focus on the consumer, a continual desire to innovate and a willingness to make significant bets on an uncertain future.

Build your capabilities. In an increasingly personalised world, participants will need to continuously build the capabilities that enable them to compete. When a television network adds a subscription video-on-demand channel, it will require technology, marketing and programming skills that it didn't have previously. As complex as marketing already is, it's going to become the domain of multi-competency professionals who are fluent in dealing with new types of platforms such as live events, apps and e-commerce, Internet search and voice, and in courting influencers.

Focus on user experience. As the focus tightens on the individual, user experience is emerging as a crucial differentiating factor. The new modes of content delivery, distribution and presentation have to feel right for each person to use, be easy to access and allow a wide array of users to customise, act on and enable their own preferences on the platform. In deference to the power of the consumer, they have to allow people to make the experience as personal as they want it to be.

Actions for E&M leaders to take now

1

Know your customers

Look to new data sets, methodologies and contextual behaviour to understand consumers.

2

Evolve your business

To compete effectively, companies need to be nimble and act rapidly.

3

Build your capabilities

As silos break down, companies will need to continually expand their capabilities and attract multi-competency professionals.

4

Focus on user experience

Content has to be compelling for each person to use, be easy to access and allow a wide array of users to customise the platform.

5

Understand that context is king, too

Companies must stay abreast of new developments in technology, the competitive market and regulations, and remember the individual behind every user ID.

Source: PwC

Understand that context is king, too. Companies will find it difficult to succeed unless they focus intently on building customer knowledge, evolutionary strategies, core capabilities and quality user experiences. But given the rapid changes afoot, companies, regardless of the sector in which they operate, must continually scan the horizon for new developments. They can't afford to separate themselves from technological developments such as 5G. If they want to build trust in every country in which they operate, they must keep up with the manifold developments in the regulatory arena. To gain, maintain and build the confidence of the individuals with whom they interact, they'll have to understand that a distinct person lies behind every user ID and customer account.

Put simply: it's time to get personal with consumers — or be left out of the conversation.

Methodology and definitions

Historical data collection

All forecasts have been built starting with the collection of historical data from a variety of sources. A baseline of accurate and comprehensive historical data is collected in the first instance from publicly available information, including from trade associations and government agencies. When this data is used directly, these sources are cited accordingly. In addition, interviews with relevant associations, regulators and leading players have been conducted to gather insights and estimates not available in the public domain. When this information is collected, it is used as part of calculations, and the sources are proprietary.

Forecasting methods

All forecasts are prepared as part of a collaborative, integrated process involving both quantitative and qualitative analysis. The forecasts are the result of a rigorous process of scoping, market mapping, data collection, statistical modelling and validation.

Note: All data, charts and graphs (unless stated otherwise) in this publication are taken from the *Global Entertainment & Media Outlook*.

Definitions

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- Books
 - Business-to-business
 - Cinema
 - Data consumption
 - Internet access
 - Internet advertising
 - Music, radio and podcasts
 - Newspapers and consumer magazines
 - OTT video
 - Out-of-home advertising
 - Traditional TV and home video
 - TV advertising
 - Video games and esports
 - Virtual reality
-

To access the full segment definitions for the *Outlook*, please visit www.pwc.com/outlook

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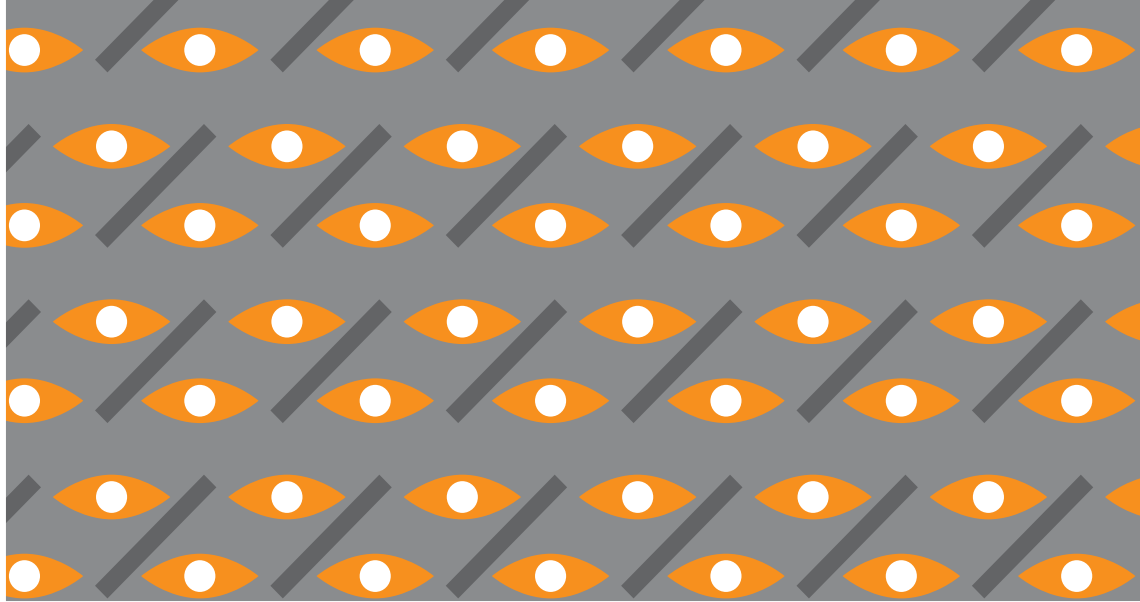
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