Perspectives from the Global Entertainment and Media Outlook 2017–2021

Curtain up!
User experience takes center stage

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About this report

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Each year we take a deep dive into the findings of our Global entertainment and media outlook. Whether you're a newcomer to the Outlook or a longtime subscriber to our data, you should regard this document as an annual report for businesses that invest and operate in the entertainment and media (E&M) industry and in related sectors, such as technology, communications, retail, and e-commerce.

As you read through this report, we're confident you will come away with actionable business insights based on the trends we're identifying and charting across the 17 defined segments and 54 countries our research covers. The authors of this report connect the dots between the business challenges our clients face today, whether they are coping with value-chain disruption or mapping an M&A strategy, and the highly detailed segment and country data that emerges from the research.

The intensive debate, discussion, and analysis we engage in each year yields important insights. For 2017, we see an important set of takeaways that should inform and shape your strategy. Companies that wish to capture value amid shifting consumer preferences and business model disruptions must focus on an increasingly prominent source of competitive advantage: user experience. They must harness technology and data to attract, retain, and engage users — and convert them into devoted fans.

And these imperatives assume a larger importance because, as we document, the E&M industry is confronting several challenges to continued top-line growth.

To learn more about how the findings in this report can apply to your business, or how your company can subscribe to the full body of Outlook research, please connect directly with your local PwC team. Alternatively, you can reach out to either of us, and we'll put you in touch with our local leaders in your geography. We look forward to hearing from and working with you.

Best regards,

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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 association 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 held 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 modeling, and validation.

Note: The only source of all consumer and advertising spend data is the Global entertainment and media outlook; however, all the data, charts, and graphs (unless stated otherwise) in this publication are taken from the Global entertainment and media outlook.

Definitions

Do you want access to consumer and advertising spending data at the click of a button? The Global entertainment and media outlook is a comprehensive source of global analyses and five-year forecasts of consumer and advertising spending across 54 countries for 17 segments:

Books
Business-to-business
Cinema
Data consumption
E-sports
Internet access
Internet advertising
Internet video
Magazines
Music
Newspaper
Out-of-home advertising
Radio
Traditional TV and home video
TV advertising
Video games
Virtual reality

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

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Many other professionals from the PwC entertainment and media practice, across 54 countries, reviewed and added local expertise to this publication.

Curtain up!

by Deborah Bothun and Christopher Vollmer

Executive summary

It's a cliché to note that something fundamental has changed in the global entertainment and media (E&M) industry. But the reality is that something significant *has* changed. E&M companies have been accustomed to competing and creating differentiation primarily based on two dimensions: content and distribution. Now they must focus more intensely on a third: user experience.

To thrive in a marketplace that is increasingly competitive, slower-growing, and dependent on personal recommendations, companies must develop strategies that engage, grow, and monetize their most valuable customers — i.e., their fans. To do so, they must combine excellent content with breadth and depth of distribution, and then bring it all together in an innovative user experience, in which the content is discoverable easily on an array of screens and at an attractive price. Simply capturing the natural growth in consumers and their uptake of services and content with existing approaches is no longer sufficient.

Across the industry, the resulting quest to create the most compelling, engaging, and intuitive user experiences is now the primary objective for growth and investment strategies — and technology and data lie at their center. Pursuing these strategies will help companies thrive in an era of complexity and slowing top-line growth from the traditional revenue streams that have nourished the E&M industry to date.

A new focus on the user

Historically, the debate in the E&M industry has revolved around the relative importance of content versus distribution, and the strategic value of combining the two. We've seen this play out in vertical integration, industry consolidation, and, to dust off a phrase from the recent past, digital convergence strategies. More always equaled better, and size itself became the defining competitive advantage.

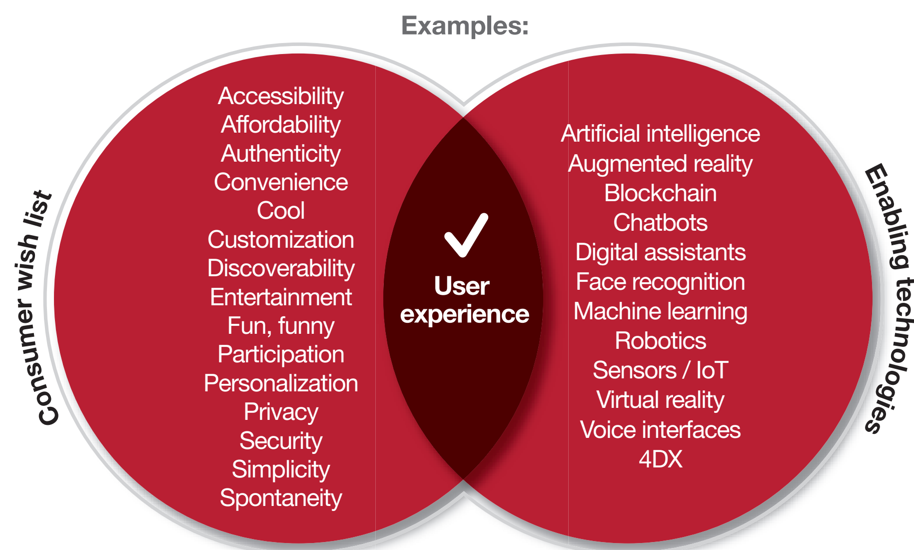
Rapid changes in technology, user behavior, and business models, however, have created a gap between how consumers want to experience and pay for entertainment and media and how companies produce and distribute their offerings. To bridge this gap, companies should pursue two related strategies: (1) focus their efforts on building businesses and brands anchored by active, higher-value communities of fans, who are united by shared passions, values, and interests; and (2) capitalize on those emerging technologies that delight users in new ways, deliver superior user experiences, and enhance productivity (*see Exhibit 1*).

Fan-centric businesses

In a Summer 2017 *strategy+business* article, "How to Make Entertainment and Media Businesses 'Fan'-tastic," Christopher Vollmer described why E&M businesses built around fans command multiple strategic advantages in today's hypercompetitive landscape. The steady march of digital technology has ushered in a more direct-to-consumer environment characterized by greater choice and user control. With an ever-greater supply of media, there is simply too much competition to allow E&M businesses to survive on experiences that disproportionately cater to casual "eyeballs," infrequent users, and other lower-value audiences. By contrast, businesses that are fan-centric will find themselves with audiences that are more engaged, are more committed, and spend more per capita. Today's fans will also recruit tomorrow's. And companies that "super-serve" fans via new and deeper experiences will move faster to unlock opportunities for revenue expansion. Embracing a fan-centric approach requires making transformational changes throughout the enterprise. Ultimately, the four most important priorities for business leaders to consider are:

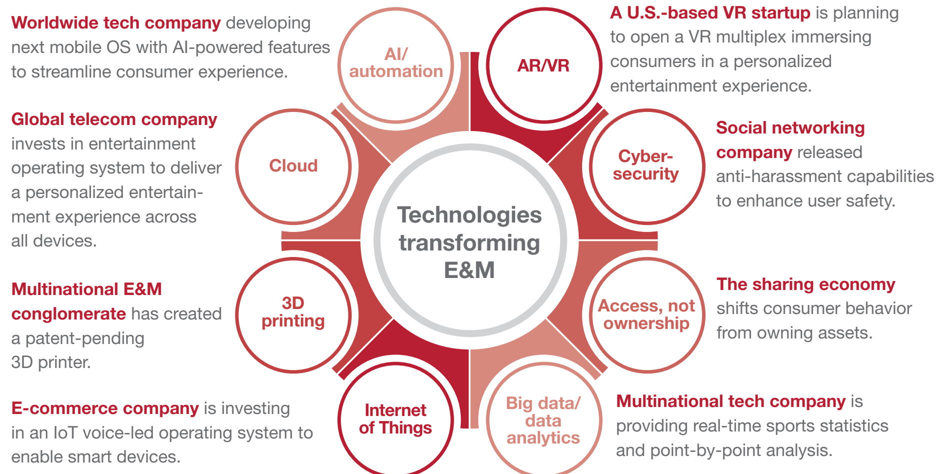
- ***Know who the fans are.*** Companies must be able to distinguish their fans from casual users, understand what drives fandom for their brands, and analyze the relative value of different audience or user segments. This creates an imperative to build deeper user insights and better targeting capabilities. To do this, E&M companies must strengthen capabilities in data analytics, measurement, and management. They can then more readily analyze what converts users into higher-value fans. These insights can help executives concentrate resources on the initiatives that matter most for driving overall company growth and profitability.
- ***Increase business agility and flexibility.*** Today's fast-moving, tech- and experience-driven market is compelling E&M companies to optimize their operations in new ways. Organizations need to be wired so they have the flexibility to respond faster to new user preferences, new business models, and new technologies. Teams must be more multidisciplinary in their approaches — bringing together expertise across content, product, technology, distribution, and sales more smoothly than ever before. For many E&M businesses, this means transforming organization structure, teaming models, and company culture.

Exhibit 1: Move over, content. Move over, distribution. User experience is king



Source: PwC

Exhibit 2: Companies are leveraging emerging technologies to enhance the user experience



Source: *Business Insider, Forbes, Variety,* International Data Corp., Tech News World, CNBC, PwC

- ***Monetize the total fan relationship.*** Fans want to do more with their favorite E&M brands than just watch. And fans are by definition fanatics: They are the users who cannot get enough of the brands they love. Following fan passions creates a natural pathway to identifying new revenue opportunities. By super-serving fans and extending the brands and franchises associated with passionate fans into new areas, E&M companies can create additional revenue opportunities in core offerings across multiple business models, including advertising, subscriptions, and transactions.
- ***Adopt a user-/fan-centric focus.*** Leading E&M companies will develop the capabilities to compete and win in an increasingly direct-to-consumer landscape. This means moving from playing solely in a wholesale world, where other players in the value chain often manage the end-user relationship, to operating in a more retail-like environment, where companies deliver end-to-end experiences directly to users, consumers, and fans. Capabilities in areas such as user interface design, customer acquisition and retention, personalization, customer service, and even billing will therefore become more critical to E&M success moving forward.

Improve user experience through emerging technologies

For E&M companies, a great user experience (UX) and advances in data and digital technology — along with great content — provide the makings of a virtuous circle. Increasing engagement and attention can lead to the capture of more data and more understanding about what crucial customers want. And that understanding enables companies to further refine, target, and engage their core audiences in ways that delight and retain them. That ultimately creates further opportunities for value creation.

In the U.S. and China, a few large companies — Netflix, Tencent, Baidu — have successfully embraced emerging technologies to achieve these goals. In their Summer 2017 *strategy+business* article, "AI Is Already Entertaining You," Deborah Bothun and David Lancefield explored how technology, media, and telecommunications companies are using artificial intelligence (AI) solutions to increase productivity, enhance creativity, and innovate in ways that address consumers' desires and challenges. Although we're still in the early days of machine learning and autonomous systems, many of the executives Bothun and Lancefield interviewed recognize that AI is not just another IT investment — it is becoming part of the technology stack and touches all parts of the business. AI is a key component of seven of the eight emerging technologies PwC has identified as having the biggest potential to improve user experience (*see Exhibit 2*).

A caveat is necessary in any discussion of investments in technology and data. It is increasingly challenging to measure with great precision the E&M industry revenue and value generated by the collection, mining, and use of data. If companies can deploy data to sell more subscriptions, capabilities in this area will show up in revenue totals immediately. But, of course, there are ways to monetize data that aren't captured by traditional methods of E&M spend measurement — for instance, data can be used to enhance e-commerce, build brand loyalty, and increase engagement. These factors are implicitly included in valuations of companies, but not necessarily in the traditional revenue measurement buckets.

A slowdown in global growth

Across segments, and at any stage of the economic cycle, it is clear that connecting with consumers as fans and focusing on the user experience can be powerful levers for growth and profitability. These capabilities assume a particularly high importance when top-line growth begins to ebb in a sector or industry. Which is precisely the challenge many participants in the E&M industry are facing. In our annual review of the Global entertainment and media outlook data, we look at a composite of all 54 countries and 17 segments included in the study to arrive at a global market forecast. Few businesses have global strategies that neatly match all of these markets. Still, we use this approach to take the temperature of how the overall industry is faring from year to year. Over the next five years we're projecting that annual growth in the E&M industry will average 4.2 percent, down from the 4.4 percent CAGR we forecast last year.

Barring a step change in technology, experiences, or platforms, the growth rate of the E&M industry will be below the growth rate of global GDP. Simply put, based on the traditional revenue streams that have driven growth historically, E&M is losing market share in the global economy (*see Exhibit 3*).

Why is this happening? This slowdown stems from a set of challenges that are specific to E&M businesses as well as larger factors that are affecting many industries.

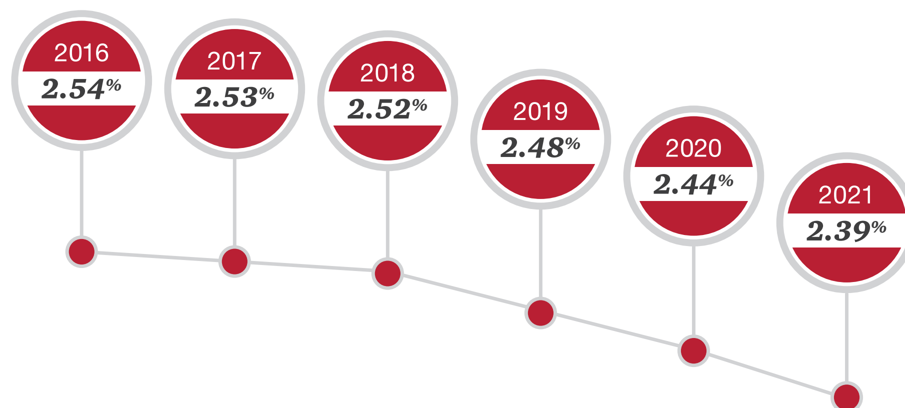
Are consumers maxed out on media?

Because so many of our conversations with CEOs and board members currently start off with questions about overarching geopolitical, regulatory, and technological uncertainties, we're confident that some of the projected decline in growth stems from these risks. (See "A trio of macro challenges," page 18.) However, even if we hold the macro risk steady, the E&M industry is

Based on the traditional revenue streams that have powered growth to date, E&M is losing market share in the global economy.

Exhibit 3: Global E&M revenue as a share of global GDP

E&M revenue will fall as a share of global GDP over the next five years



Source: Global entertainment and media outlook 2017–2021, PwC, Ovum

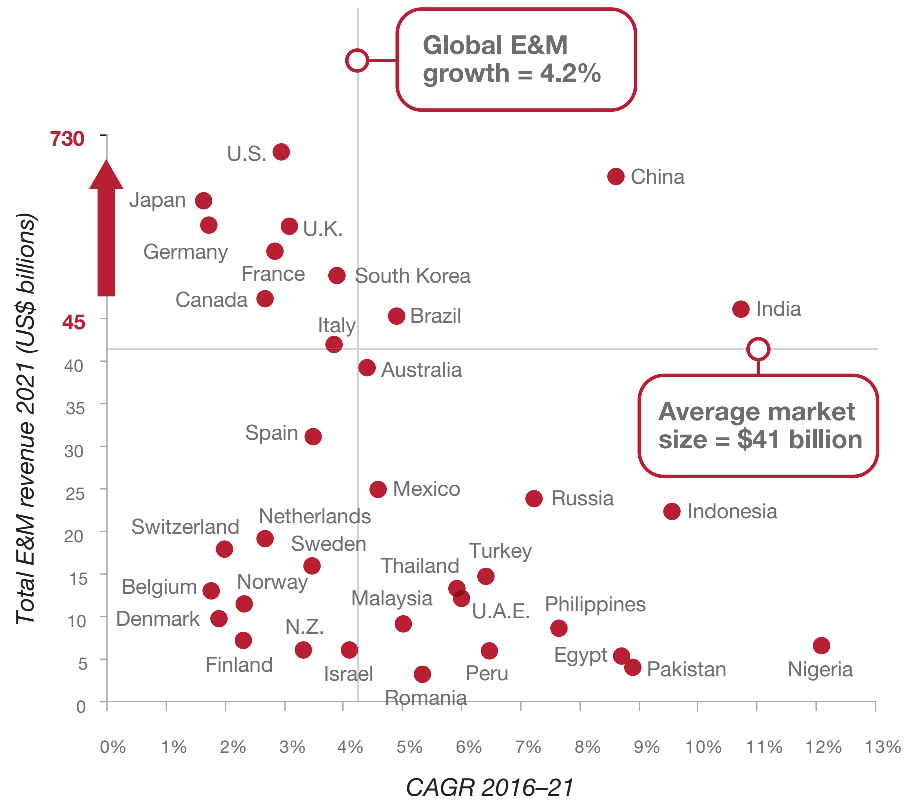
facing significant pressures on growth. That's because it appears we may have arrived at a tipping point. In many of the largest markets, and hence in the industry as a whole, E&M businesses are approaching or have reached a form of saturation. It may be that there are limits to the willingness and ability of people to consume and pay for the expanding array of media products and services. But it could also be that as digital media markets mature, and as user experiences improve, consumer and advertising spending is becoming more efficient. As consumers purchase streaming subscriptions instead of buying music downloads, and as advertisers make targeted online buys instead of mass-media purchases, their overall spending may not grow as rapidly as in the past.

The same truism that holds for most consumer markets holds true for the E&M industry: As markets mature, they grow more slowly (*see Exhibit 4*). The most rapid growth rates will be seen in less-developed markets and economies, where E&M spending on a per capita basis is generally quite low (*see Exhibit 5*).

There are no real outliers or exceptions to this rule. As Exhibit 4 (call it a seesaw chart) shows, the top left quadrant is populated by mature markets in North America and Europe, and wealthier

Exhibit 4: A world of differences

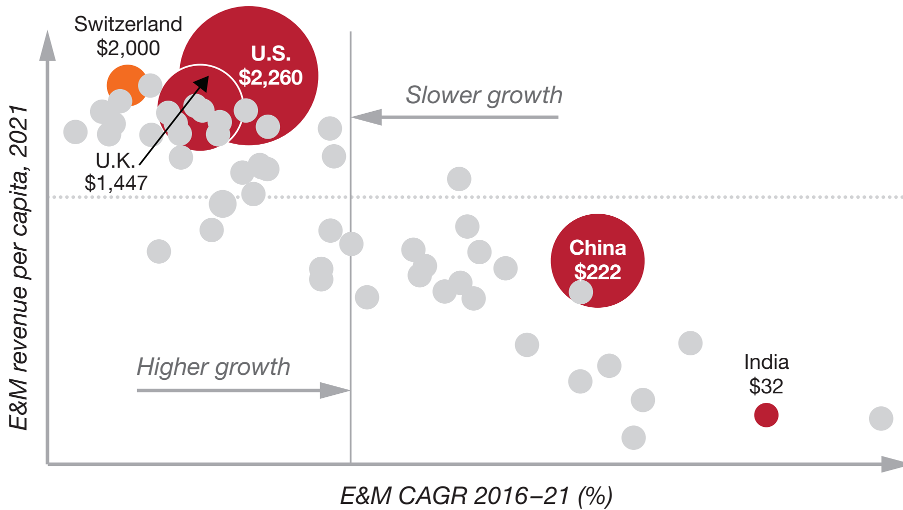
Scale vs. growth in global E&M markets



Source: Global entertainment and media outlook 2017–2021, PwC, Ovum

Exhibit 5: Markets with low per capita spending will grow most quickly

- Each bubble represents a country
- Size of bubble represents total E&M revenue
- Dollar amount represents per capita spending



Source: Global entertainment and media outlook 2017–2021, PwC, Ovum

Asia-Pacific markets, in which consumers spend a lot — more than US$500 per capita annually — on E&M. In both the U.S. and Switzerland, consumers spend more than $2,000 per capita. The bottom right quadrant is home to less-developed economies, which, although they may be highly populous, feature much lower per capita spending. In five of those markets (Pakistan, Nigeria, India, Egypt, and Vietnam, which have a combined population of 1.9 billion), per capita E&M spending is less than $50 per year. Although revenues are rising rapidly in these markets, they are doing so from a very low base. As a matter of mathematics, the rapid growth in the lower right quadrant can't compensate for the lower growth in the upper left quadrant over the forecast period.

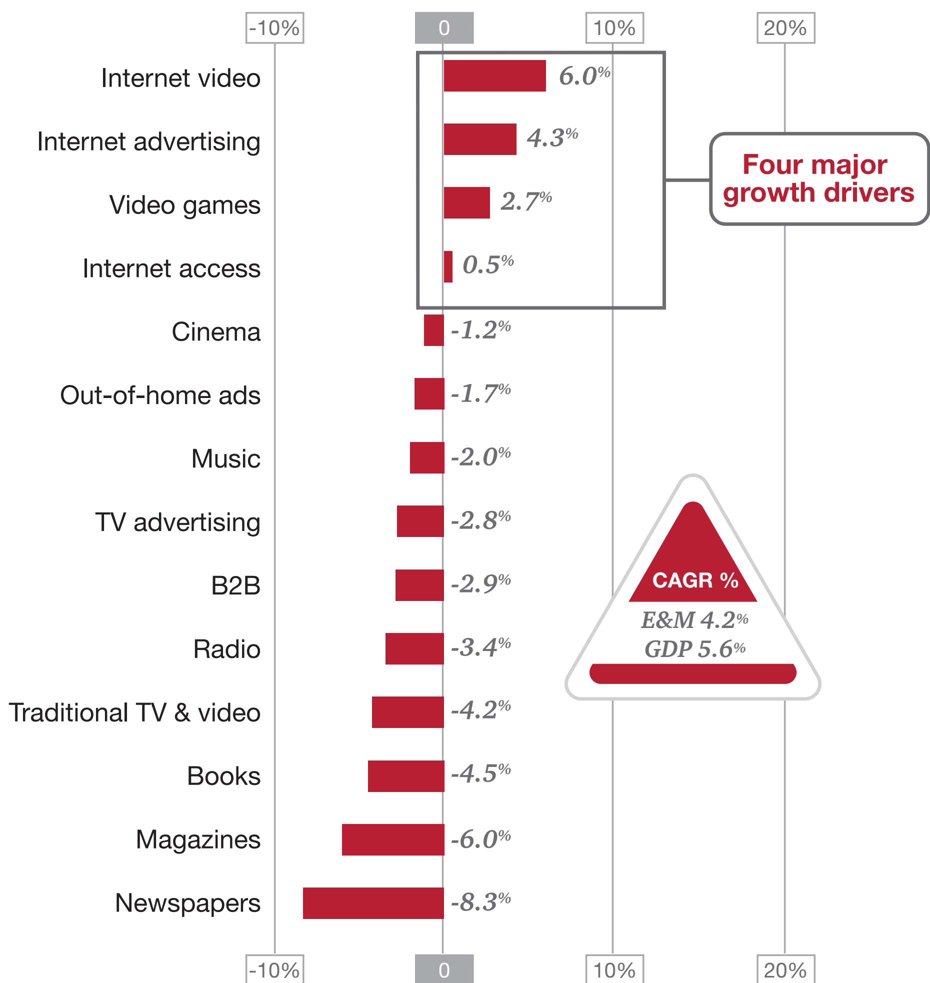
The majority of the traditional industry segments included in the Outlook forecast also show a decline in projected growth rates. Over the next five years, most E&M segments will struggle to keep pace with GDP growth. Only two segments, newspapers and magazines, are declining in absolute terms. But other major segments, including TV advertising, B2B content, and cinema, will shrink as a share of the global economy between now and 2021. And the areas that are showing growth, such as Internet video and Internet advertising, are not sufficiently large to overcome the stagnation in other areas (*see Exhibit 6, next page*).

In other words, we are approaching an industry plateau. Traditional, mature segments are in decline, the Internet and digital E&M content is growing but at a slowing rate and the next wave of content and entertainment is in areas such as e-sports and virtual reality, which are just beginning to ramp up. According to Nielsen's 2016 report on

It could be that as digital media markets mature, and as user experiences improve, consumer and advertising spending is becoming more efficient.

Exhibit 6: Internet video, Internet ads, gaming, and access are the engines powering global E&M growth

CAGR minus GDP growth by segment, 2016–21



GDP CAGR %

Note: E-sports and VR have been excluded from this chart because their very high growth rates (from very low bases) would distort the scale. The data consumption segment is not included here because it is a usage-based metric.
Source: Global entertainment and media outlook 2017–2021, PwC, Ovum

total audience measurement, U.S. adults now spend 10 hours and 39 minutes a day consuming media, including an average of 4 hours and 31 minutes spent watching live television. Because the U.S. is the largest revenue market for both E&M overall and per capita spending, it is hard to see how its consumers will continue to boost their consumption and spending at levels above GDP growth unless there is a major change in "must have" technologies and brands. One example of such a technology step change could come with the adoption of autonomous vehicles — which would significantly add to the number of available screens and screen time for consumers.

Emerging areas

There's another possible explanation for the apparent slowdown in growth. The universe of what is considered E&M spending is clearly expanding, in an ever-proliferating range of venues, platforms, devices, arenas, and consumer products. But many of these areas, which have significant growth potential, are not captured directly in the 17 segments that we follow. Many companies are channeling portions of their advertising budgets to e-commerce sites, but those totals are not aggregated. The tallies of cinema box office do not include the growing revenues movie theater owners realize from using their properties to stream sporting and music events. Live events have great appeal. Live music, a $25.6 billion business, is projected to grow at a 3 percent CAGR through 2021. And we haven't traditionally broken out live theater, which is booming: Broadway box office sales in 2016 alone were $1.4 billion.

Pockets of divergence

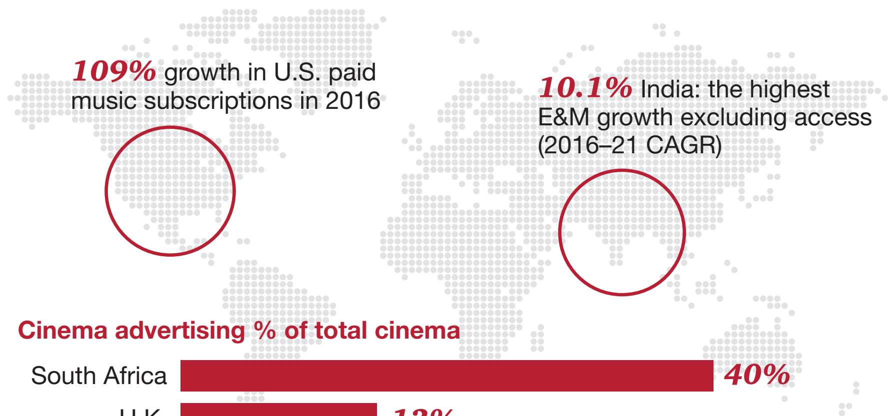
Not all markets or segments are slowing or in decline. Pockets of divergence and potential market growth opportunities surfaced in several areas of our research (*see Exhibit 7*).

Cinema. Global box office spending may be under pressure. But we were struck by the varying amounts of ad-based revenue as a proportion of cinema revenue — from essentially nothing in Japan to 40 percent in South Africa. Cinema is a medium that commands consumers' absolute attention — in most cultures, engaging with a second screen (e.g., checking email or Facebook on a smartphone during a movie) is frowned upon. These factors make cinemas an especially good place for targeting younger demographics. Although there might be resistance in certain countries to viewing ads, we believe there is ample room in many developed countries to use the largest screens available as a vehicle for targeted campaigns.

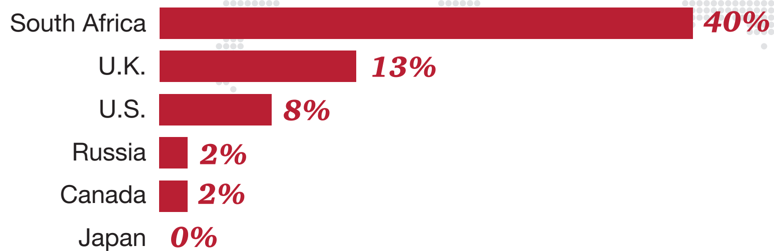
Music in Japan. Thanks to enduring consumer preferences, Japan's physical music unit sales will withstand the difficult global climate far better than other countries. Indeed, with projected unit sales of 88 million in 2021, Japan will have the highest such sales in the world and be one of the few markets that see only single-digit declines. Japan is the one remaining country in the world where Tower Records has a physical presence. Total music revenue per capita in Japan will be $43 in 2021, nearly five times the global average of $9.

E&M in India. E&M revenues will grow rapidly despite the fact that India is the least digitized of the 54 markets we cover. This paradox actually makes sense. The low level of Internet access in India means the country's growing number of middle-class consumers have comparatively limited access to digital content and experiences. As a result, Indian consumers are investing more of their rising incomes in *non-digital* traditional print and broadcast physical media, shielding segments such as television from the digital competition they face in other markets.

Exhibit 7: Global divergences

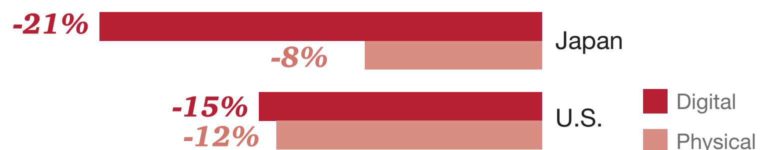


Cinema advertising % of total cinema



Music streaming revenue, 2016 growth

Music unit sales, 2016–21 CAGR



Source: Global entertainment and media outlook 2017–2021, PwC, Ovum

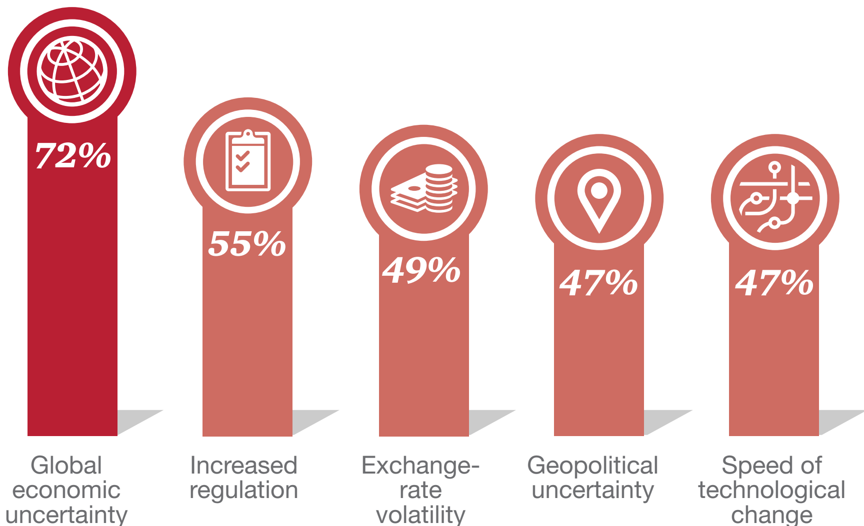
A trio of macro challenges

As E&M companies face a host of challenges particular to their own industries, they are also confronting big-picture forces that affect all companies operating in today's global context.

Economic and geopolitical risks. According to the 2016 CEO Pulse study from PwC's Global Crisis Centre, economic and geopolitical uncertainties are among the top two threats for companies today (*see Exhibit 8*). The growth forecasts for the E&M industry have been lowered in part to reflect the broad-based economic and political uncertainty that has stemmed from the U.K.'s Brexit plans and from national elections in which populist and anti-globalization themes have emerged — whether it is in the U.S., France, or the Netherlands. Despite its promise, Latin America, and particularly Brazil, remains hampered by issues of governance. China's growth remains steady although not without significant challenges: economic imbalances continue to grow, leadership has slowed market reforms, and economic trade-offs are becoming more acute.

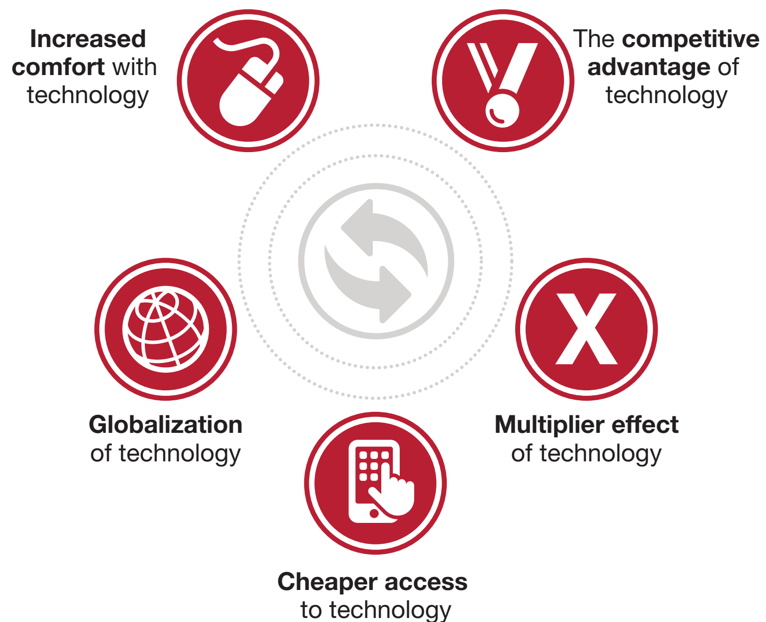
There's always a base level of uncertainty inherent in the global economy. But the severity of issues such as slow growth, currency policy, civil unrest, and geopolitical tensions have intensified concerns.

Exhibit 8: Global economic uncertainty is the top threat identified by CEOs



Source: PwC CEO Pulse 2016

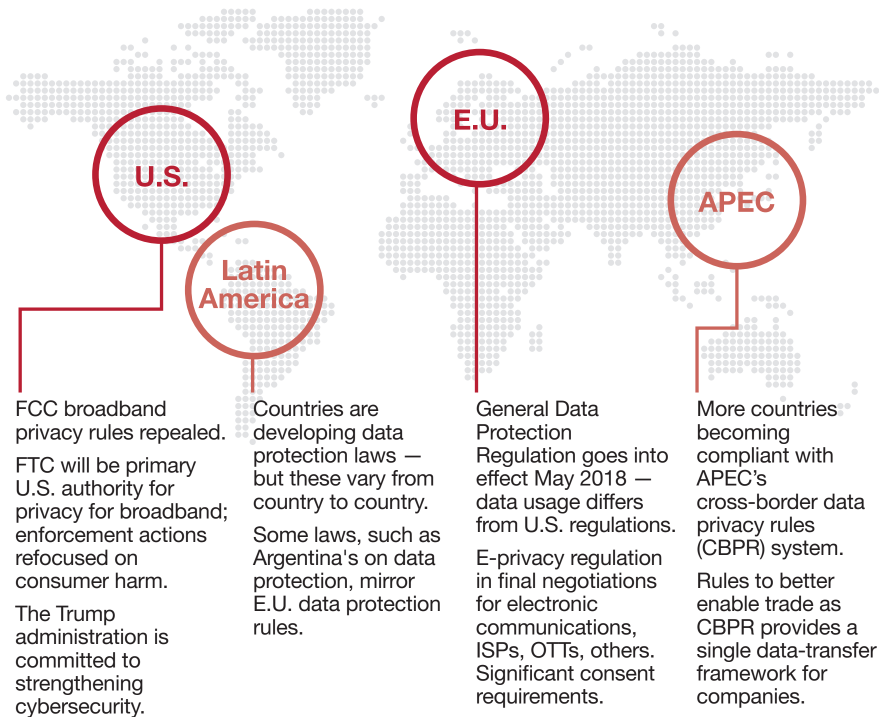
Exhibit 9: Catalysts of change



Source: PwC

Exhibit 10: Data protection regulations are evolving in the United States and abroad

Data privacy and security are top of mind today for policymakers and regulators in the U.S. and abroad:



U.S.	Latin America	E.U.	APEC
FCC broadband privacy rules repealed. FTC will be primary U.S. authority for privacy for broadband; enforcement actions refocused on consumer harm. The Trump administration is committed to strengthening cybersecurity.	Countries are developing data protection laws — but these vary from country to country. Some laws, such as Argentina's on data protection, mirror E.U. data protection rules.	General Data Protection Regulation goes into effect May 2018 — data usage differs from U.S. regulations. E-privacy regulation in final negotiations for electronic communications, ISPs, OTTs, others. Significant consent requirements.	More countries becoming compliant with APEC's cross-border data privacy rules (CBPR) system. Rules to better enable trade as CBPR provides a single data-transfer framework for companies.

Stakeholder-generated codes of conduct/best practices and the need for **interoperable global standards** are emerging as key policy themes, as regulators do not want to stifle innovation in industries such as the IoT, autonomous vehicles, commercial drones, artificial intelligence, and other emerging technologies.

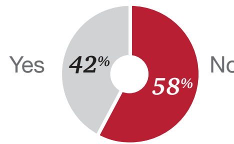
Source: PwC

Speed of technological change. Technological advancements are appearing rapidly and simultaneously across many industries (*see Exhibit 9*). The E&M industry is facing a significant level of uncertainty concerning the speed of change in areas such as AI, 5G networks, IPv6 protocols, virtual reality (VR), and the Internet of Things (IoT). At the same time, uncertainty also surrounds the speed of monetization and the viability of new business models enabled by these new technologies. The concerns created by the confluence of these disruptions may have a chilling effect on investments. Alternatively, they could be largely offset by an increased level of spending on related consumer categories such as e-commerce, or by faster Internet speeds and more powerful devices that are fundamental to improving the user experience.

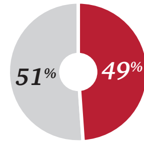
Regulatory risks. CEOs in all industries identified increased regulation as the second-most common threat. And within the E&M industry, regulatory challenges are evident in every major region. Beyond the changes to be expected with a new administration in the U.S., around the world we are seeing that issues of data privacy and security are capturing the attention of policymakers and regulators. Stronger regulations in these areas could make it more difficult to track data about personal preferences, thereby making it harder to improve the user experience (*see Exhibit 10*).

The baby boomers are aging out of their prime consumption years, and the generations that replace them may not exhibit the same propensity to spend on E&M.

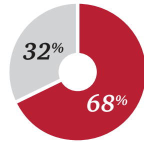
Exhibit 11: Are you paying more today for video content than you were one year ago?



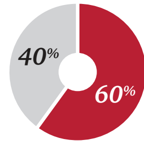
Pay-TV subscribers



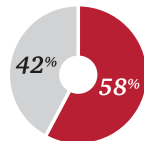
Cord trimmers



Cord cutters



Cord nevers



Total

- **Traditional pay-TV subscribers**:
  - Skew 35+ (69%)
  - Oldest group in survey
  - Report highest household income of all four groups
- **Cord trimmers**:
  - Under 35
  - Over one-third are 18 to 34 years old
  - Many have adopted skinny bundles to lower cost
- **Cord cutters**:
  - Skew younger than 35
  - Lower-than-average disposable income
- **Cord nevers**:
  - Youngest group in survey
  - 68% are younger than 35
  - Never subscribed to pay-TV
  - Prefer to cherry-pick content
  - Lowest household income

Yes   No

Source: "Videoquake 4.0: Binge, stream, repeat — How video is changing forever," PwC Consumer Intelligence Series, 2016

Shifts in generational preferences

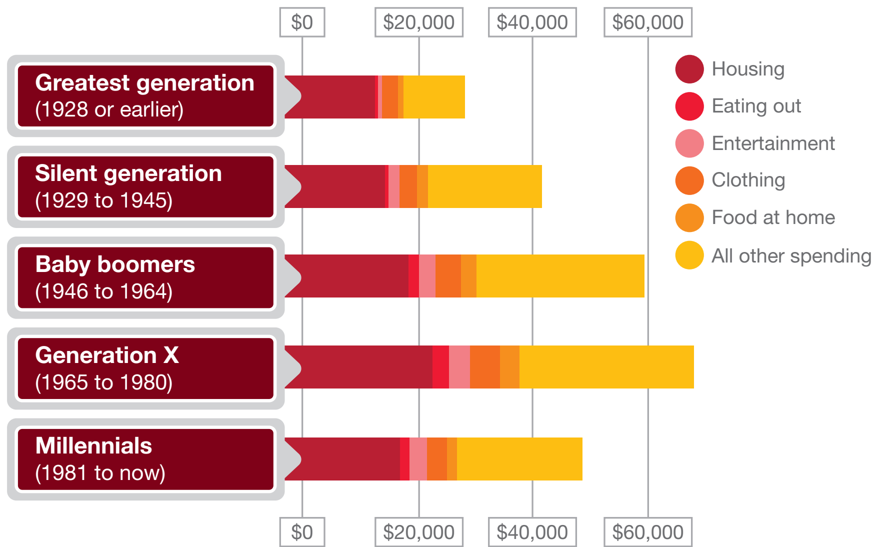
There's another long-term challenge to top-line growth. The baby boomers are aging out of their prime consumption years, and the generations that replace them may not exhibit the same propensity to spend on E&M. Over the past 10 years, PwC's Consumer Intelligence Series has captured the changing consumer behavior of millennials (those born between 1981 and 1998) and generation Z (born 1998 to now) across a number of topics. And it's clear that the impact of technology and digital media has changed the way younger generations experience and

Generational spending habits

Millennials, who are now the largest cohort in the U.S. workforce, have less money to spend than their elders. And they spend their scarce money differently. Two out of three millennials rent their home. They have the fewest vehicles per household (1.5) of any generation, except those born before 1929. Although they spend the largest share of their budget (more than 6 percent) eating out. And millennials spend significantly less on entertainment ($2,186 annually) than baby boomers ($3,286) and Generation X ($3,231).

If millennials stick to their current spending habits as they age and earn more, it will have a significant impact on these industries.

Exhibit 12: U.S. household spending by generation (US$)



Source: U.S. Department of Labor, Nov. 2016 (based on analysis of generational data from the Bureau of Labor Statistics)

purchase content. They stream songs or watch videos on YouTube instead of buying albums; they consume free news on Facebook or Snapchat instead of spending hundreds of dollars for home delivery of newspapers. Rather than subscribing to expensive pay-TV bundles, they source their video through a combination of over-the-top services (*see Exhibit 11*). According to a recent study, millennials account for 43 percent of the U.S. cordless population — those who have never had cable, satellite, or fiber-optic cable service and those who have cut the cord. Thirty percent of U.S. millennials are now cordless, compared with just 16 percent of baby boomers, according to GfK MRI's January 2017 "Survey of the American Consumer."

Of course, millennials will probably eventually marry, have children, and purchase homes in greater numbers. But it seems unlikely they will adopt their elders' habits when it comes to media consumption and spending.

Barring a step change in "must have" technology (e.g., autonomous vehicles), profitable growth in the E&M industry will increasingly come from capturing market share, rather than from market expansion.

Conclusion

Thriving in a world of slower growth, intense competition for attention, and continual disruption will be challenging. But the opportunities inherent in this world are immense. Our data, analysis, and perspective offers compelling insights into how E&M companies are adapting, investing, experimenting, and innovating. As we move forward, we know the Outlook will continue to be a valuable source of nuanced information and vital perspective on segments and geographic markets. Several of our PwC colleagues have explored the 2017 Outlook findings within the context of their specialization and geographic markets. The chapters that follow take you deeper into the analysis and their insights into industry trends and challenges across business models, value chains, technological change, content strategy, deals, and regulation.

Business models

As distribution splinters, adaptation is the name of the game

PERSPECTIVE: In aggregate, the amount of money consumers and advertisers are spending on E&M is still growing modestly. For the industry as a whole, the outlook is relatively stable. But in many of the Outlook's segments, we may be at a tipping point of significant changes in how consumers and advertisers allocate their choices and dollars. Yes, companies must continue to battle for market share in their traditional delivery platforms. But to capture their fair share of the new growth streams, they'll have to ramp up their flexibility and innovation. They can do so by focusing on emerging business models that can drive growth through building creative partnerships and greater brand and franchise loyalty.

Cinema

Cinema serves as a prime example of how revenues are being diverted from existing channels into new ones. The major studios face steep declines in home entertainment revenue. As Exhibit 13 shows, global revenue from the rental and sales of physical home video, which has already been falling sharply, will decline at an 8.8 percent CAGR through 2021. In response to such changes, and in recognition that viewers are increasingly agnostic as to the size of the screen on which they view films, many major studios are considering new ways to shorten the traditional delay between the cinematic release of films and their availability for home viewing. In 2016, Napster cofounder Sean Parker and celebrity backers including Steven Spielberg announced their investment in a startup that would allow people willing to pay a premium to watch new movies at home on the same day they hit theaters. Although the project has since lost traction, the debate between studios and exhibitors about shortening release delays has continued.

Exhibitors also have an opportunity to redefine their value proposition and adapt to these changes. For example, movie theater owners, faced with stagnant box office sales for first-run films, can expand their menu of content to include remote-viewing experiences for fans of opera, the symphony, sporting events, and pop festivals. In emerging markets with a rising middle class,

companies can use promotions and rebates to boost admissions, and can expand the use of in-cinema advertising, as is common in South Africa, to increase revenue over the long term.

Advertising

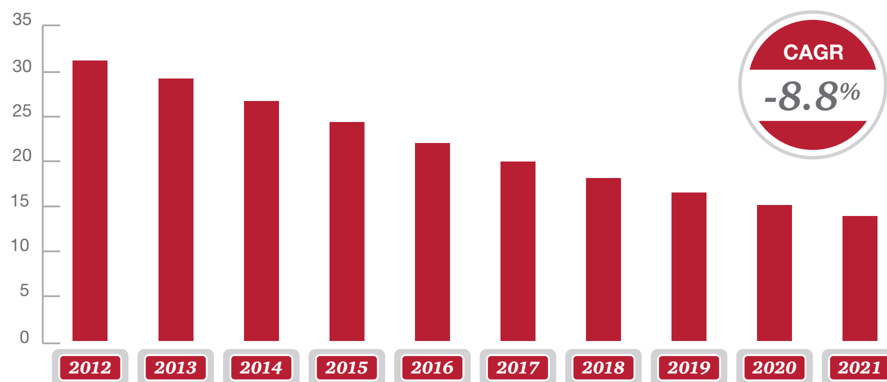
Pressures on ad-supported business models reflect two stark realities. First, many consumers, especially among the most attractive demographic segments, such as high earners and millennials, prefer ad-free environments, especially when they are viewing or reading high-quality content. This shift is evident in the rising use of ad-blocking and ad-skipping technologies and the rapid growth of ad-free/ad-light subscription revenues.

- A 2015 study by Sourcepoint and comScore found that whereas 10 percent of users block ads in the U.S. and U.K., about 25 percent do so in France and Germany. Younger and wealthier users also have a greater propensity to use ad blockers.
- By 2021, Internet video — defined as consumer spending on streaming services, such as Netflix, that do not require a pay-TV subscription — will grow at an 11.6 percent CAGR to $36.7 billion.

Concurrently, media businesses and premium advertisers are not migrating to digital advertising as fast as viewers are diverting their attention to digital media — primarily due to a lack of trust, transparency, and brand relevance.

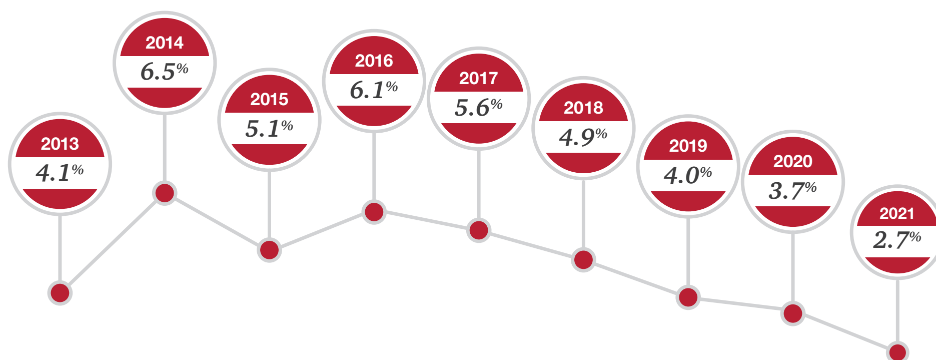
These twin challenges are not leading to a decline in Internet advertising, however (*see Exhibit 13*). In fact, overall advertising growth is now overwhelmingly driven by Internet advertising, which will grow at a CAGR of 9.8 percent through 2021. By contrast, non-digital advertising is forecast to grow

Exhibit 13: Global physical home video revenue (US$ billions)



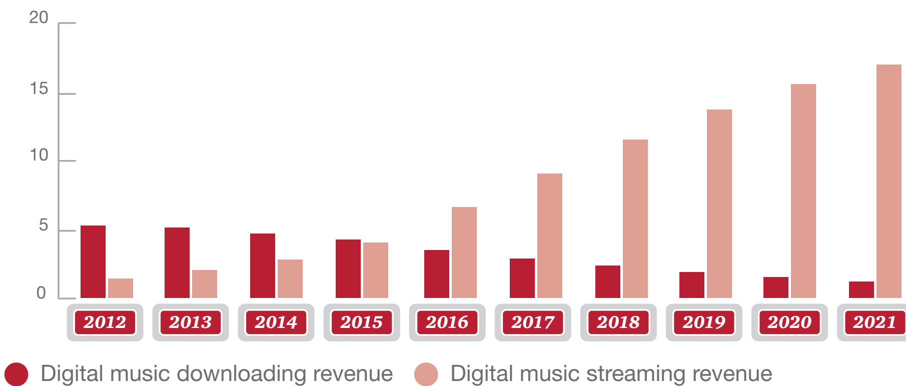
Source: Global entertainment and media outlook 2017–2021, PwC, Ovum

Exhibit 14: Total global advertising growth rates (%)



Source: Global entertainment and media outlook 2017–2021, PwC, Ovum

Exhibit 15: Global digital music downloading revenue vs. digital music streaming revenue (US$ billions)



Source: Global entertainment and media outlook 2017–2021, PwC, Ovum

at just a 0.2 percent CAGR. Although advertisers are still willing to spend within the rapidly growing Internet advertising market, we see a remarkably high level of concentration of ad tech companies controlling that spending. According to eMarketer forecasts, Google and Facebook will account for almost 50 percent of advertisers' total global digital ad spending in 2017, and China's Tencent, Alibaba, and Baidu will capture approximately 15 percent. That's five companies harvesting 65 percent of total global digital advertising revenues. This concentration is forcing digital and traditional publishers alike to rethink how content is distributed, consumed, and monetized over third-party platforms, and to pursue new types of partnerships and business models as a result.

Music

Revenues in the global music industry, which had remained flat from 2012 through 2015, are rising thanks to the success of new business models. Built on freemium models, streaming plans in 2016 led the global music industry to its second straight year of growth. And as streaming gains momentum, we forecast that recorded music revenues will rise at a 4.2 percent CAGR through 2021. This seemingly modest growth is quite impressive — particularly given the continued decline in digital music downloading revenues (*see Exhibit 15*). In 2017, streaming will become the dominant revenue source for recorded music. Concurrent with the growth in streaming, major labels are reaping gains in performance rights royalties. Global performance rights will increase at a 6.4 percent CAGR through 2021.

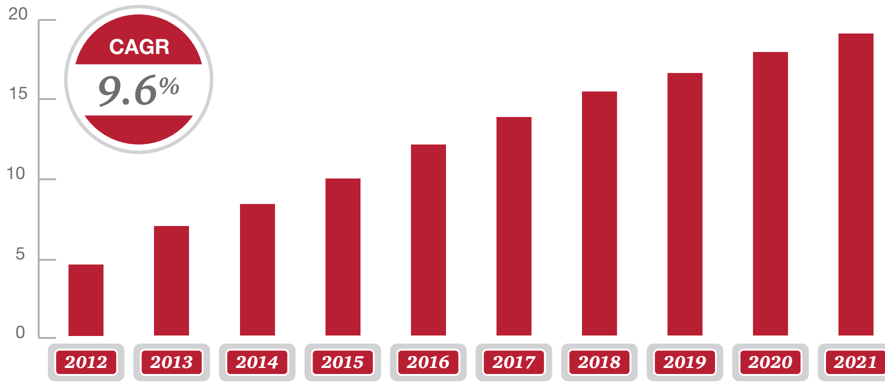
Overall, the music industry seems much healthier than it was a few years ago. In addition to the growth in streaming, there's also strong growth in live music events; ticket sales are forecast to grow at a 3.2 percent CAGR between 2016 and 2021. But the music business also faces some unique challenges. Although growth accelerated considerably with the launch of Apple Music in 2015, competition is intensifying. New entrants with deep pockets, such as Amazon, are putting more emphasis on the *free* in *freemium*, subsidizing consumer costs on the backs of other business models. Moreover, similar to what we see in video content, music is very much a "short tail" business. As we note elsewhere in this report (see "Content strategy," page 32), when consumers are presented with expanded choices, they often fall back on the familiar. The top 50 songs account for almost all the streaming activity, yet the companies are paying music publishers for access to catalogs with hundreds of thousands of songs.

U.S. television distribution and Internet access

A particularly notable challenge to current business models exists in the U.S. market, where cable TV and telecoms bundling strategies for pay-TV and Internet access are coming under pressure.

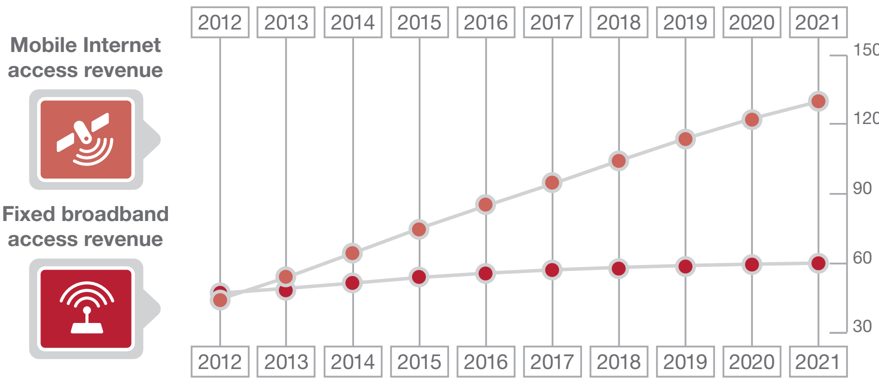
Pay-TV challenges. As streaming platforms and networks proliferate, sports has been a powerful magnet keeping consumers attracted to traditional pay-TV subscription models. But that's changing. Viewership for many of cable's top sports properties — the NFL, the Olympics, Major League Baseball, and NASCAR — is shrinking. And as more consumers have been cutting the cord, some premium cable channels have seen their number of

Exhibit 16: U.S. Internet video revenue (US$ billions)



Source: Global entertainment and media outlook 2017–2021, PwC, Ovum

Exhibit 17: U.S. Internet access revenue (US$ billions), fixed broadband vs. mobile Internet



Source: Global entertainment and media outlook 2017–2021, PwC, Ovum

subscribers fall. It's not that people are watching fewer events, it's that they've migrated to digital platforms — and to the ever-expanding array of available streaming services and apps. The growth options for both television networks and pay-TV providers can be seen in the proliferation of "skinny bundles," direct-to-consumer digital distribution models, and mobile apps that enable viewing of sports highlights and statistics.

Broadband provider challenges. U.S. cable providers are capturing gains from a growing high-speed fixed broadband market. Over the next five years, the market will expand from 63.3 million households to 72.2 million households, representing a 3.7 percent five-year CAGR. In time, the shift to 5G wireless networks and IPv6 protocols will pose a significant threat to cable companies' reliance on revenue from wired broadband. However, in the near term, overall broadband penetration has reached saturation at 85.8 percent of all U.S. households in 2017. The main threat today is wireless substitution for slower-speed fixed broadband services as telcos introduce unlimited wireless offerings of 4G services and as public Wi-Fi becomes ever more prevalent. As Exhibit 17 shows, we expect U.S. spending on mobile Internet access to rise at an 8.9 percent CAGR through 2021 while spending on fixed broadband Internet access will grow at a 1.5 percent CAGR. Still, innovation and competition in plan designs and access to speed may slow the pace at which consumers decide to move from wired to wireless.

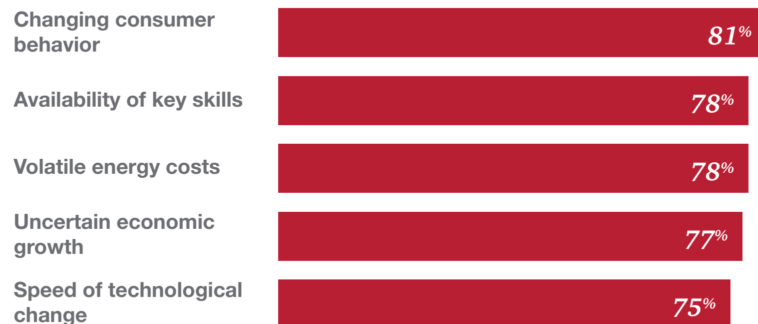
Value chains

Across E&M, companies chart a direct-to-consumer path

PERSPECTIVE: When asked about the threat of industry disruption, 23 percent of all the leaders who responded to PwC's annual CEO survey said technology will reshape their industry over the next five years. But the proportion of E&M CEOs who shared this sentiment was more than twice as high: 56 percent. Indeed, technological advancements, and the dramatic changes in consumer behavior that they enable, are already redistributing revenues and competitive advantage.

As a result, E&M businesses now have a mandate to build and fortify direct, sustainable relationships with consumers. The paths and choices to navigate to the consumer depend on a relentless focus on the user experience. But they also depend on a company's current role in the ecosystem of content, distribution, and advertising.

Exhibit 18: Top five concerns for E&M CEOs



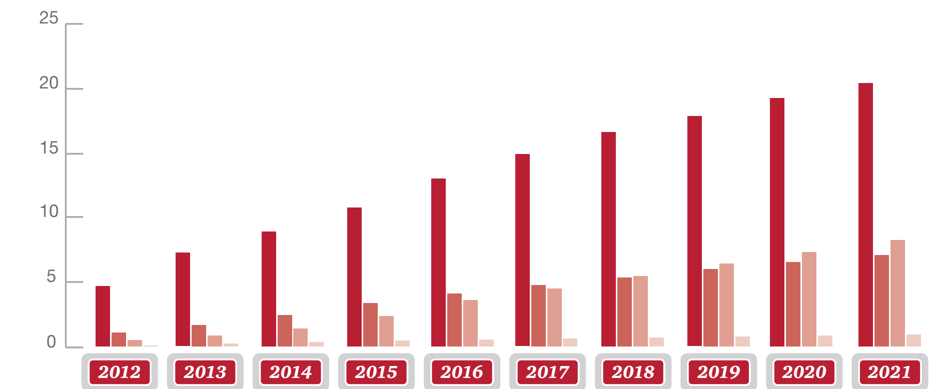
Source: PwC, 20th Annual Global CEO Survey

Content

In their path to build closer relationships with consumers, content companies have doubled down on blockbuster hits. In a February 2017 special report, the *Economist* described an industry in which blockbusters continue to dominate, despite the immense choices consumers have. Overwhelmed by content choices, consumers fall back on the familiar; they rely on recommendations from friends, algorithms, and rankings. As a result, content that is popular becomes more popular. The promise of digital distribution was that content providers would be able to monetize the massive amount of intellectual property (IP) gathering dust in their vaults, catalogs, archives, and backlists — often referred to as "long tail" content. In a digital world, no book would ever go out of print; even the most obscure title would always be available to the few people who wanted access to it. The long tail would create recurring revenue streams from hundreds or thousands of titles and provide content creators with the incentive to produce work, even if it appealed to only a small niche audience.

But instead, we've seen that across the E&M industry, there's a heavy concentration of blockbuster content. Investment dollars are thus flowing into high-quality, premium content. Disney's major franchises produced the top five highest-grossing films in 2016, including all four of the films that grossed more than $1 billion. Disney's live-action version of *Beauty and the Beast* tallied $1 billion at the box office within a month of its launch in the spring of 2017. And in April 2017, Universal Pictures' *The Fate of the Furious* reached $1 billion in the third weekend after its release, largely driven by strong performance in China and other international markets.

Exhibit 19: Consumer spending on Internet video (US$ billions) by region



Source: Global entertainment and media outlook 2017–2021, PwC, Ovum

Distribution

The continual splintering of distribution platforms is making it imperative for distribution companies to figure out how to get closer to consumers. To reach attractive demographics in the increasingly digital and mobile environment, we're seeing a significant number of organic and inorganic investments aimed at combining distribution with video content.

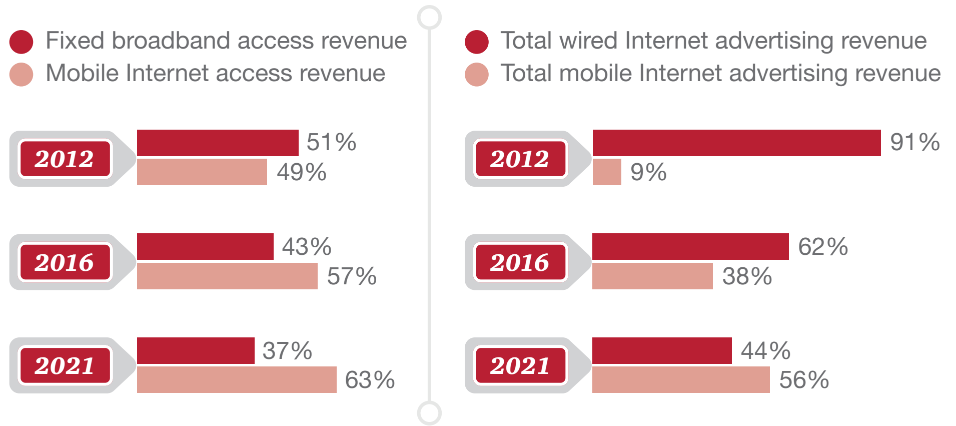
Content companies are making bolder moves to get directly involved in distribution. Much of this is driven by the rapid growth of over-the-top aggregators and the threat of cannibalization — not being able to reach audiences through traditional pay-TV distribution (*see Exhibit 19*). Some are taking direct-to-consumer approaches by building proprietary apps, such as HBO Now, or pursuing acquisitions. Firms are also entering into content deals with tech giants to reach consumers on third-party social platforms. Examples include Facebook's recently announced deals to stream content from Major League Soccer games, along with original content deals with several other media companies (CNN, HuffPost, the *New York Times*, etc.). For its part, Amazon has struck an agreement with the National Football League to stream Thursday night games. Increasingly, Netflix is entering into distribution partnerships with U.S. and international carriers as part of its global expansion strategy.

Amid this flurry of activity, it's not clear which will be the top distribution channels five years from now, and what forces will separate the winners from the losers.

Advertising

For advertisers, forging a profitable path to consumers means gaining visibility in digital distribution platforms where consumers discover and recommend content (and brands). From the Outlook data, we know that global spending on advertising is growing at a faster pace than consumer spending, and signs indicate it will continue to do so through 2021. But what's less apparent is the concentration of advertiser spending on the digital side — where all the growth is. Rather than being spread across many outlets, advertising now flows disproportionately to a few large platforms, such as Facebook and Google.

Exhibit 20: Total Internet access revenue and Internet advertising revenue by make-up (%), 2012 vs. 2016 vs. 2021



Source: Global entertainment and media outlook 2017–2021, PwC, Ovum

The robust growth of Internet advertising masks an embedded form of inertia. Premium brands are reluctant to take on the perceived risks inherent in concentrating more of their advertising in digital mediums.

The fact that the rising tide will lift only a few very large boats presents increasingly difficult challenges for traditional media segments. The media planning business, as well as newspaper and magazine publishers, will come under particularly acute pressure.

In the new environment, value flows to the companies that control the three Cs: content, communication, and commerce. For Internet advertisers, the route to control is through focusing on the user experience, especially in mobile. The growth of Internet advertising is being powered by mobile advertising, which grew by 54 percent in the past year, to $43.8 billion. Through 2021, that number will grow at a 17.1 percent CAGR — ultimately reaching $96.9 billion. An example can be seen in China's Tencent, which is laser-focused on creating a mobile ecosystem (pushing users from desktop to mobile gaming, for example) that is sufficiently compelling for the user never to leave the "Tencent experience." Introduced in 2011, Tencent's enormously popular messenger app, WeChat, surpassed 800 million monthly active users in 2016. Tencent invests heavily in the mobile commerce future, aiming to dominate the online finance and e-commerce market. Other companies that have proved to be powerful magnets for user attention, such as Amazon, Facebook, and Google, are moving in a similar direction.

With each passing month, more of the world's Internet experience is taking place via mobile. But last year, wired Internet advertising still accounted for 61.6 percent of total Internet advertising (*see Exhibit 20*). The robust growth of Internet advertising also masks an embedded form of inertia. Premium brands are reluctant to take on the perceived risks inherent in concentrating more of their advertising in digital mediums. Without accepted measurement practices that can provide transparency on the efficacy and efficiency of the major platforms, larger agencies and their clients have held back their ad dollars. It often takes a period of time for advertisers to catch up to where consumers are spending their time and attention. In 2016, smartphone connections accounted for more than 50 percent of global mobile phone connections, a proportion that will rise to more than 75 percent by 2021.

Technological change

Driving incremental growth through innovation

PERSPECTIVE: The accelerating speed of technological change creates a macro-level risk for most businesses. But in the E&M industry it's also opening up a large opportunity for innovation in product offerings, brands, and business models that revolve around the user experience. We see it in emerging segments with rapid growth such as virtual reality and e-sports, both of which were added as new Outlook segments this year. In addition, across many segments, data is evolving into a form of currency. To a large degree, the value that companies can now capture from data — because it allows for personalization, customization, segmentation, and greater ROI and brand equity — gets captured indirectly in the Outlook segment data, such as Internet advertising. But in other cases, the value may flow into adjacent sectors, such as e-commerce. Either way, the growing volume of data and the technologies that allow companies to mine and deploy it are transforming the ways E&M companies monetize both content and distribution.

E-sports

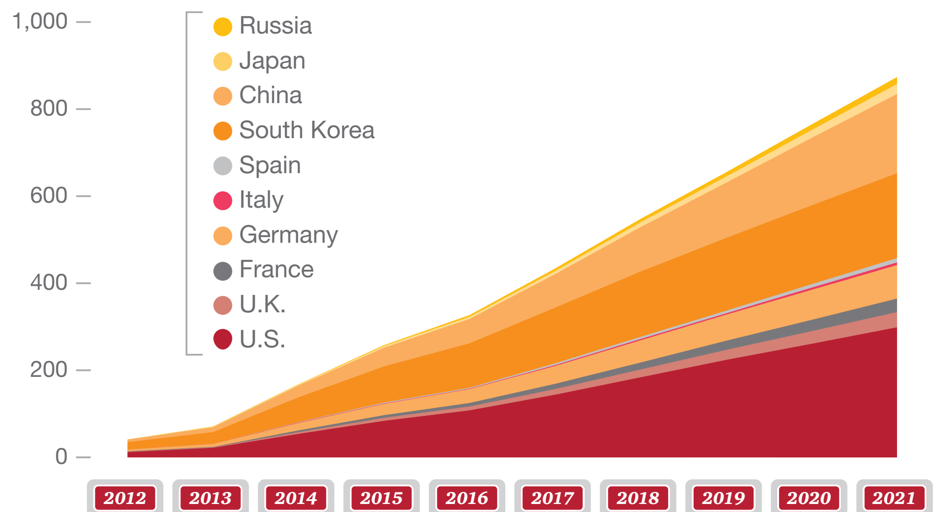
The Outlook's new e-sports segment is defined as consumer and advertiser spending on organized video game competitions. E-sports is rapidly evolving from a hobby (or an obsession for many users) into something resembling a professional sport, through a combination of one-off events and leagues. Companies and consumers in countries such as Germany and South Korea — the latter of which built a dedicated e-sports stadium in 2005 — might dispute the idea that e-sports is "new." The video game industry in China is enormous and with the growing development of e-sports venues, we expect high growth potential in this sector. But what is undeniably new is the emergence of e-sports as a global phenomenon that attracts large, youthful audiences and premium multinational brands.

Much in the same way social gaming evolved, the audience makeup has now grown well beyond hardcore gamers and their niche segment of brands and social networks. Most who livestream e-sports do so on sites such as Twitch, which was acquired by Amazon in 2014 and hosts 2.1 million unique streamers per month. In the U.S., where colleges are starting to field e-sports teams, pay-TV networks are getting involved. Time Warner's Turner broadcasted the ELeague on TBS and its digital platforms for the first time last summer, averaging 228,000 viewers per episode. And ESPN has begun covering major e-sports such as Defense of the Ancients 2 on its streaming and broadcast channels. Exhibit 21 shows monetization is starting to catch up with this rising attention. In the Outlook, e-sports revenues fall into four buckets: ad spending on streamed events, sponsorship revenue at events and for teams, consumer spending on tickets to attend e-sports events, and consumer spending on passes to virtually attend events. Overall, e-sports revenues more than quadrupled between 2013 and 2016, and could nearly triple again by 2021.

E-sports is a great example of a fan-centric business. It's reaching fans who are not spending as much time with traditional sports or other entertainment and media. The spending per fan has significant potential to grow, given that it is very low compared to per-fan spending for established sports leagues, such as the NBA and NFL. With more technology innovation and sophistication in storytelling, e-sports can become even more interesting to watch, easier for viewers to follow, and attractive for advertisers and their brands.

In 2017, we introduced two new categories to the Outlook: e-sports and virtual reality. In some markets, these categories are very immature and therefore extremely hard to measure. For that reason, we're focusing now only on the 10 markets in which the revenue streams and business models have developed sufficiently so that it is possible to measure results and analyze trends: the United States, Japan, China, South Korea, the United Kingdom, France, Germany, Russia, Italy, and Spain.

Exhibit 21: Total e-sports revenue by country (US$ millions)



Source: Global entertainment and media outlook 2017–2021, PwC, Ovum

Virtual reality

To start measuring the impact of virtual reality (VR) on the E&M industry, the Outlook now includes consumer spending on the video content, games, and applications associated with the sale of head-mounted VR systems for consumers. As was the case in the early days of smartphones, this is a highly immature market with several underdeveloped business models and lots of experimental or low-quality content. Game publishers have made good progress in getting beyond the free demo stage. VR video creators are still struggling with distribution and monetization. Margins are still razor-thin given the technical constraints and high costs of headsets.

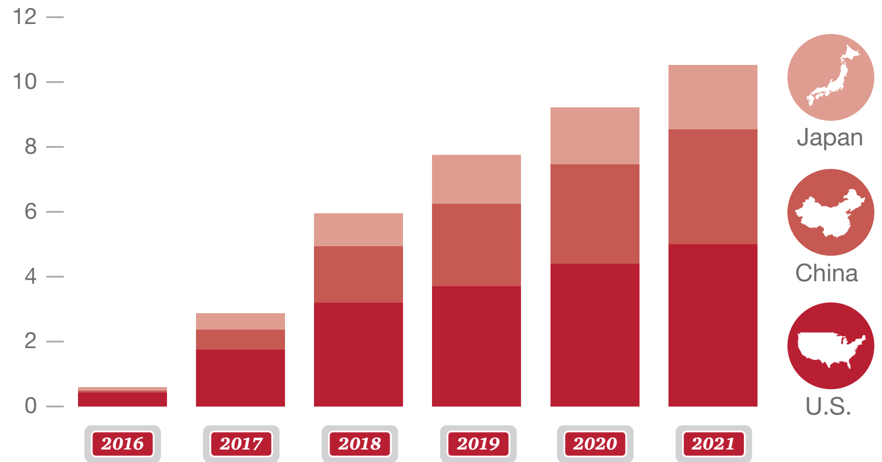
To experiment in VR as a video medium, the team behind Google's Art, Copy & Code is developing content on WebVR. This approach lets audiences view content through a Chrome browser or with low-cost headsets that incorporate smartphones — such as Google Cardboard or Daydream. The idea is to create a faster path to large audiences — ones that will attract advertisers.

As hardware (device) platform leaders emerge, their related marketplaces for content will mature. No one will get rich from hardware alone; the end game will be to become the standard platform for VR and hence start to create revenue streams from content sales, licensing, or advertising dollars. We anticipate VR will grow at an 80 percent five-year CAGR through 2021, at which point it will be a $15 billion global market, compared with $869 million in 2016 (*see Exhibit 22*).

In 2016, PwC's Consumer Intelligence Series conducted a study about e-sports consumers in the U.S. market. The group with a high degree of awareness of e-sports had the following characteristics:

- Gender-neutral
- Median age: 28
- 69% age 18–34
- Racially diverse
- More likely to own multiple tech devices (desktop computer, connected TV, connected device, etc.)
- Spent more time in front of screens than non-e-sports users, whether gaming or streaming video content

Exhibit 22: Total VR revenue (US$ billions) in the three largest markets



Source: Global entertainment and media outlook 2017–2021, PwC

Data as currency

Any buyer–seller transaction or relationship involves an exchange of value. Historically, that value has been measured in monetary currencies such as dollars, euros, or renminbi. But it's increasingly likely that for E&M companies, value will come to be measured in the monetizable currency of data. By virtue of operating, any E&M company gathers an immense amount of powerful information about user behavior and preferences, performance, and transactions.

The revenue forecasts in the Outlook reflect the upside value of monetizing data. Businesses could be implicitly (if not explicitly) capturing the value of user data into the abundance of free, freemium, and subscription-based pricing for content today. For example, Amazon could use the data gleaned from tracking viewers of the NFL games it will be streaming to promote the sale of merchandise. Data could also abet value creation by helping companies gain share in mature markets and attract growth in emerging markets (while possibly also slowing the drain of piracy).

But the value of data becomes even more powerful as artificial intelligence begins to play a bigger role in E&M organizations. As detailed in Deborah Bothun and David Lancefield's article in the Summer 2017 issue of *strategy+business*, "AI Is Already Entertaining You," data is a critical input for powering AI solutions. And by deploying AI, companies can become far more efficient in building audiences, attracting advertisers, extending the brand experience, interacting, and upselling across the customer journey. They can also become much better at designing the user experience in a way that extends the amount of time consumers spend with content and the amount of brand equity gained through loyalty and recommendations to others.

Content strategy

Adapting to penetrate technological and cultural filters

PERSPECTIVE: In last year's Outlook report, we found a nearly perfect correlation between rapid E&M growth and countries with younger populations. But the growth opportunity we saw was far from a one-size-fits-all content strategy. Local differences factor heavily into consumer preferences for the provenance of content (global versus local), for specific genres, and for key segments of content. But even if you get this part of your strategy perfectly tuned, the bigger issue for building your content strategy comes down to discovery. In a world where consumers increasingly curate their own content, how do you penetrate the powerful filtering mechanisms that act as gatekeepers?

Decoding content preferences in local markets

The world may be flat in many ways, but evidence abounds that it remains very spiky in places. Content preferences are highly influenced by the dynamics and diversity of culture, language, income, and regulation. All of these factors can affect companies' ability to monetize investments in content. The quality of the underlying digital infrastructure also varies widely: The relative level of Internet access penetration, the speed of those connections, the preferred platforms (mobile or fixed broadband), and the variance in the popularity of devices with which people access content can differ greatly. And for each market, you have to consider the pace and scale at which that digital infrastructure is likely to evolve.

For all these reasons, even markets that might appear similar at the surface may offer remarkably different revenue opportunities (*see Exhibit 23*). Here are several examples.

- ***Magazines.*** On a per capita basis, consumers in Portugal spend twice the amount of money on magazines as consumers in Spain, the country's neighbor on the Iberian Peninsula. A similar disparity holds between Scandinavian neighbors Finland and Sweden.
- ***Internet access.*** In Asia, China and India represent the two most populous markets — and hence

vast potential. But Internet use in India is overwhelmingly a mobile phenomenon. Only 8 percent of data traffic in India will course through broadband in 2021. By contrast, in China, 56 percent of Internet traffic will travel on fixed broadband in 2021.

- ***Cinema.*** International blockbuster movies will find more of an audience in Germany than in South Korea; in the latter country, of the 10 top-grossing films, locally made productions accounted for more than 81 percent of revenues. China still has a quota system for the importation of foreign films and effectively limits foreign films' ability to compete at the box office against local releases.
- ***Video games.*** The social gaming portion of video game revenue in Germany is more than twice as high as it is in Ireland.

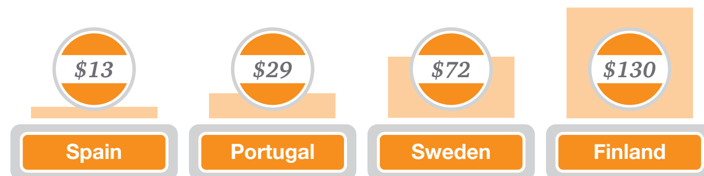
To expand globally, two of the largest players in video distribution — Netflix and Amazon — have taken different content strategy approaches. Netflix is investing $6 billion to create original content in 2017. It plans to coproduce original, local "flagship" content that can be heavily promoted to drive up subscriptions in a number of countries. A leading equity analyst estimated that Amazon is spending $4.5 billion on original content. But the company has focused on fewer big markets. It is building a slate of multilingual offerings largely by acquisition and by co-producing original content with local firms.

Deciphering changes in content choices

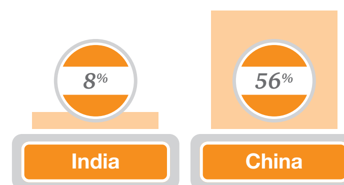
At its core, E&M is all about building audiences. Companies monetize those audiences through advertising, subscriptions, and transactions. Success has always turned on winning the battle for consumers' limited time and attention. However, the dominance of a few social and search giants and their role in shaping consumers' content choices is a complicating factor. Consumers' decisions on how to spend their time and attention are increasingly determined by social media likes, shares, and recommendations from algorithms and like-minded people. As a result, even in a world characterized by immense choice, consumers often have a narrower, more homogeneous view of content choices — "filter bubbles," as Internet activist Eli Pariser describes them. (Pariser argues that users get less exposure to conflicting viewpoints and are isolated intellectually in their own information bubbles.) They are steered toward the content they are "most likely to like" as determined by their past choices and what's most popular.

Exhibit 23: Regional spending differences

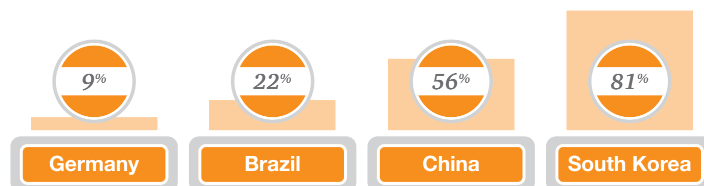
Per capita spending on magazines, US$, 2017



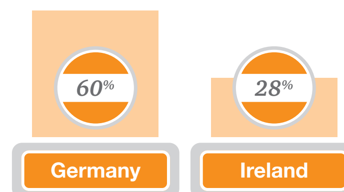
Fixed broadband share of data traffic, 2021



Local share of top 10 grossing films, 2016



Social gaming share of total video game dollars, 2021



Source: Global entertainment and media outlook 2017–2021, PwC, Ovum, *Hollywood Reporter*, Wikipedia, Box Office Mojo, Korean Film Biz Zone

Successful content strategies must adapt to this environment. Consumers, content, and brands now connect across a small number of large platforms — rather than through a direct relationship with traditional publishers (see "Diminishing print returns") and distributors. As a result, building audiences now requires a different set of strategies and capabilities to penetrate filters.

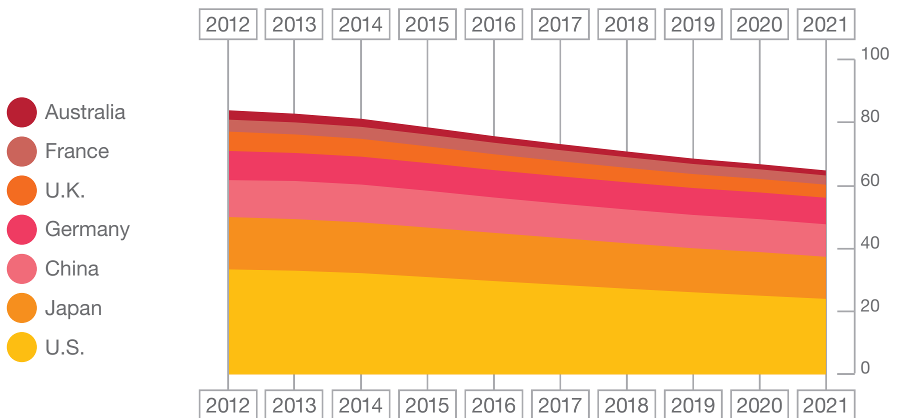
Beyond the revenue impact for traditional content businesses, there's also an implicit risk for confirmation bias and the ability for governments and criminals to exploit that bias. Perhaps the most visible impact of these filter bubbles was seen in the 2016 U.S. presidential election. A BuzzFeed analysis found that the top fake election news stories generated more total engagement on Facebook than the top election stories from 19 major news outlets combined. To address this challenge, Facebook and other companies have since announced measures aimed at combatting the proliferation of fake news.

Are consumers overwhelmed?

In our PwC Consumer Intelligence Series, we routinely survey consumers on their video viewing preferences and behavior. Many consumers tell us they are flummoxed by the choices they have. In a 2016 survey, 69 percent of all participants agreed that "the amount of TV content is overwhelming." They say it's becoming harder and harder to decide where to spend their leisure time. The dominant ways of choosing content were inertia ("it's a show I've watched in the past," at 78 percent), direct recommendations from friends and family members (45 percent), and flipping channels (41 percent). Consumers are also frustrated with having to navigate across multiple individual TV aggregator platforms to find the show they're looking for. But, as global E&M leader Deborah Bothun points out, artificial intelligence could eventually form the basis of a seamless experience for consumers that spans existing content, distribution, discovery methods, and technology. But, she also notes, this frustration may turn out to be a generational issue. Bothun posits that younger demographics (generation Z) may not see a curation problem at all — they've grown up in a world in which content choices have always been guided by suggestions from friends, family, coworkers, celebrities, journalists, or chatbots, and in which content resides on a range of platforms. They are more comfortable with technology and more savvy with search.

In addition, platforms understand that they and their audiences thrive when they publish valuable content. It is therefore to be expected that competition among these platforms for the right to display content, including live content (from sports, for example), will continue to intensify. This will result in an increase in deals and partnerships. Advertisers are also looking to take advantage of the valuable content migrating onto social platforms, which are developing new ad formats to address this demand, along with new monetization models that compensate all parties and deliver a nonintrusive experience to users.

Exhibit 24: Newspaper revenue (circulation + advertising) (in US$ billions)



Source: Global entertainment and media outlook 2017–2021, PwC, Ovum

Diminishing print returns

The impact of changing consumer preferences in content consumption is especially dramatic for the newspaper industry (*see Exhibit 24*). Consumers in Europe, North America, and Australasia continue to abandon print for digital channels. In North America, which is the third-largest newspaper region by revenue and the region in which revenues are declining at the fastest pace, social platforms have become the dominant intermediaries for consumers.

Deals

6

Strong tailwinds

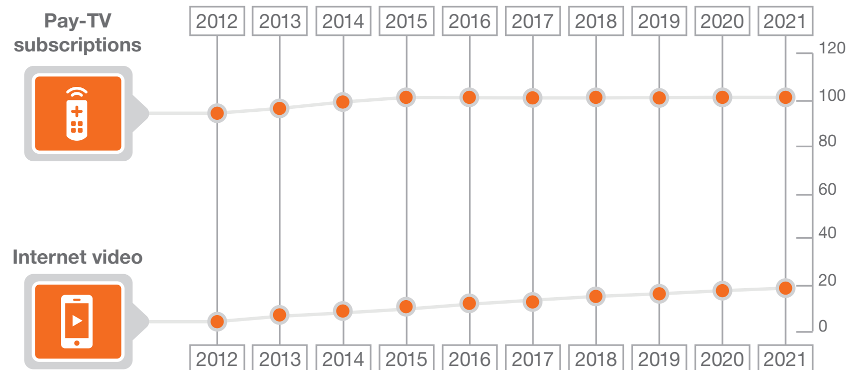
PERSPECTIVE: Overall, 2016 continued a multiyear trend of strong activity across the global technology, media, and telecommunications (TMT) sector. According to Mergermarket, 2016 deal value in TMT reached $698.2 billion, accounting for 21.4 percent of all global deal activity. The United States was the most active region, reporting 1,101 deals worth $362.7 billion. Within TMT, media showed the biggest increase, growing 118 percent, from $86.1 billion to $188.1 billion. A rise in foreign investment of U.S.-based targets from Asia-Pacific countries, particularly China, contributed to the impressive growth. So, too, did AT&T's announced $85.4 billion purchase of Time Warner, which, if approved, will be one of the largest deals in the history of the industry (*see Exhibit 25*). Looking ahead through 2021, there are more tailwinds than headwinds for deal activity. We expect corporate and private equity investments to remain very active. Deal activity will primarily be aimed at gaining global scale, diversifying revenues, and acquiring new capabilities to drive growth.

Tailwinds

The powerful underlying shifts in the global E&M industry point to a growth in capabilities-driven deals designed to create new revenue streams and enhance the user experience. We expect an increase in strategic deals (large and small) that will expand a company's ability to create and manage its data assets, strengthen analytics capabilities, power innovation with ad tech and emerging technologies (VR, AR, AI, etc.), and orchestrate live events and experiences across digital and physical venues. Although transformative blockbuster deals will garner headlines, many significant transactions will be smaller, undisclosed, tuck-in deals. Some

Exhibit 25: Mature players in the U.S. pay-TV sector are making deals that will enable them to grow (US$ billions)

- **AT&T/Time Warner**: This deal matches Time Warner's premium content network with AT&T's leading scale in pay-TV subscribers and in mobile and broadband distribution to connect with consumers on every screen
- **Comcast**: Multiple deals will drive digital growth for Comcast/NBCU through large investments in Snap, BuzzFeed, and Vox, and purchases of SportsEngine and DreamWorks



Source: Global entertainment and media outlook 2017–2021, PwC, Ovum

Companies will use M&A activity to get closer to their customers — both to consumers and to brands.

good examples of publicly disclosed deals are Disney's 33 percent stake in BAMtech (a technology company spun off from Major League Baseball's digital video–streaming unit) and Spotify's recent purchases of four analytics-enabled businesses: Soundwave, Cord Project, CrowdAlbum, and Sonalytic.

The deals environment should continue to benefit from three positive trends.

- ***Continuing convergence.*** Companies will use M&A activity to get closer to their customers — both to consumers and to brands. These vertical integration deals are not focused on cost synergies. They are aimed at boosting growth, monetizing audiences, and allowing for the bundling of services.
- ***Changing regulatory environments.*** Changes in net neutrality and privacy regulations across the world could make the environment more ripe for deal making. In particular, with a change of administration, the U.S. market seems more favorably positioned for ongoing consolidation within E&M, and across the broader TMT universe.
- ***Cross-border investment.*** In the introduction of this report, we noted that anti-globalization trends due to geopolitical factors could affect broader global E&M spending. But

it's also the case that a large amount of foreign investment continues to flow into the U.S. E&M sector. The largest increase in 2016 foreign investment was from the Asia-Pacific region, particularly China. However, megadeals involving foreign acquirers included the completion of U.K.-based Liberty Global's purchase of U.S.-based Cable & Wireless and Netherlands-based Altice's purchase of U.S.-based Cablevision.

Headwinds

Although the tailwinds supporting the progress of deals are strong, significant headwinds remain that E&M companies must contend with. These include:

- ***China.*** Direct foreign investment from China conglomerates in U.S. targets is expected to subside in coming years. President Xi Jinping's government has enacted controls to limit the flow of outbound capital, and is concerned about currency valuation challenges. Uncertainty about trade relations and regulatory changes on both sides of the Pacific may impact the pace of growth in FY17; however, we believe the U.S. market will continue to remain attractive to Chinese business leaders. In a recent article, the *Wall Street Journal* detailed how Hollywood studios are increasingly dependent on China — as a source of investment and as a source of ticket-purchasing customers.
- ***Escalating valuations.*** Pricing of today's deals reflects companies' focus on driving growth, as opposed to general cost-cutting or streamlining operations. Although a ceiling on valuation has not been established, escalating prices may inhibit the willingness of certain private investors to participate. For example, unless an individual private equity (PE) firm has a deep E&M portfolio, its ability to leverage synergies may be limited. That said, both corporate and PE buyers are nonetheless actively pursuing deals in the E&M industry. Overall, we expect PE firms to contribute to escalating valuations going forward.

Regulation

Market contrasts, net neutrality, and privacy

PERSPECTIVE: Regardless of where they operate, companies must adapt to the evolving regulatory landscape. And although companies increasingly operate on a global scale, it is vital to understand the crucial changes afoot at the local level. Whether it's foreign ownership restrictions in some markets, a Republican-controlled Federal Communications Commission (FCC) in the U.S., the forthcoming introduction of the General Data Protection Regulation (GDPR) in Europe, or debates over net neutrality, the regulatory docket is full of both opportunities and challenges. Although it's difficult to predict what the impact will be on future E&M spend levels, these shifts could alter the climate for many investors and businesses.

7

Impacts in specific countries

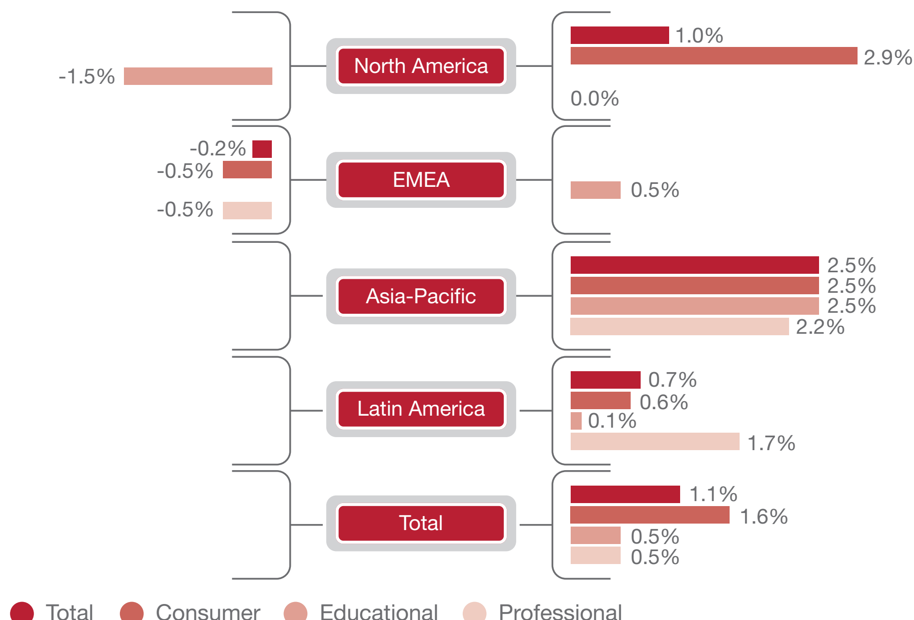
China, the world's most populous country and the second-largest E&M market, is on the radar screen of every major E&M organization. But censorship and other regulatory constraints play a significant role in inhibiting investments. Although both Netflix and Amazon expanded their services "globally" in 2016, neither will compete directly in the highly regulated Chinese market. In withdrawing from its original plan to operate in China, Netflix announced it will instead license content to existing online distributors in the country.

China's streaming markets are not the only markets where new regulations affect local strategies. For example, in Russia, a 2014 ruling that banned pay-TV advertising was amended in February 2015 to avoid a collapse of multichannel advertising. But the amendment stipulated that channels must show 75 percent local content (many top sports channels have been given an exemption).

Another example can be seen in the book industry (*see Exhibit 26*). In many markets, a sharp increase in online book sales (of both print and digital books) has compensated for a decline of sales in retail channels. But because so many countries in Europe, the Middle East, and Africa (EMEA) have fixed-price book laws, consumers in those countries have not been able to take advantage of deep discounts from online publishers.

Exhibit 26: Total, consumer, educational, and professional books revenue CAGR (%) by region, 2016–21

EMEA will shrink while other regions see growth



Source: Global entertainment and media outlook 2017–2021, PwC, Ovum

Governments and regulatory bodies in many markets are taking steps to reduce the dominance of incumbents and increase competition in both fixed and mobile Internet coverage. Efforts are notable in some Latin American and MENA countries.

Global uncertainty over net neutrality

In the U.S., the FCC sets the standards for Internet service providers. These standards encompass net neutrality — and there may be changes under the Trump administration. In November 2014, President Obama opposed the practices of blocking or throttling content, or offering higher speeds to customers willing to pay for them. Following various court decisions backing the principle of net neutrality between 2014 and 2016, the FCC pressed ahead with its regulatory agenda, including proposals to "unlock" the set-top box to usher in a more competitive environment for video content. The FCC has launched a proposal to roll back the nation's net neutrality rules and set the stage for tech companies and Internet service providers to reopen the debate over the future of the Web.

Outside the U.S., net neutrality laws have been passed in many markets and are under consideration in others. The Dutch government is taking a tougher stance in its interpretation of European Union (E.U.) rules on net neutrality than many other E.U. member states; it favors banning online service providers from paying for preferential access. At the same time, governments and regulatory bodies in many markets are taking regulatory and legal steps to reduce the dominance of incumbents and increase competition in both fixed and mobile Internet coverage. Efforts are particularly notable in some Latin American and MENA countries that have been slower to open to competition than those in other parts of the world.

Privacy

Privacy regulation continues to have major implications for E&M user experiences and the role of brands within E&M digital media ecosystems. Companies continue navigating the fine line between delighting customers and annoying them — or even alienating them. In the U.S., President Trump recently signed congressional legislation that repeals FCC privacy protection for Internet users. This means that, like Internet service companies, telecom providers will not be required to ask consumers for permission to collect, store, share, or sell certain types of customer data. The change puts Verizon, Comcast, and AT&T on a level footing with tech giants such as Google, Facebook, Amazon, and Netflix, but it was viewed as a setback for consumer privacy by many Internet activist groups. Ironically, it comes at a time when E.U. regulatory changes are driving toward greater protection of the personal data of E.U. citizens. The E.U.'s GDPR, due for introduction in May 2018, has data security implications for E&M companies that operate in Europe and throughout the rest of the world.

Privacy regulation is evolving elsewhere. In the 21-country Asia-Pacific Economic Cooperation (APEC) forum, for example, more members are now becoming compliant with APEC's cross-border privacy rules (CBPR) system for data. And in Latin America, countries are developing data protection laws. Some of these laws mirror E.U. data protection rules, as is the case in Argentina. But the laws under development vary from country to country.

IP protection remains fragmented

Copyright infringement remains a problem in many markets; rights holders are in a constant battle against pirates. One favored approach aimed at reducing unlawful file sharing is "graduated response" (also known as three strikes). But the use of graduated response, under which copyright violators can ultimately have their accounts suspended, is uneven, and opinions vary as to its effectiveness. Since the U.S. decided in January 2017 to shutter its program, Canada is the only country in North America that has a graduated-response regime in place to deter illicit behavior. By contrast, the U.K. set up its first graduated-response program in early 2017 as leading ISPs joined forces with content owners to start sending out millions of warnings to those engaging in infringing activities.

The U.K. initiative's effectiveness is likely to be measured against France's similar HADOPI effort. Although it has sent out 7.5 million first-warning notices since its 2009 launch, HADOPI has been criticized for its perceived failure. Meanwhile, in Russia, the authorities have been promising to close down the many popular BitTorrent sites operating in the country; telecom and media regulator Roskomnadzor vows to block leading operations. In Latin America, where piracy is a significant problem, DirecTV Latin America has joined with other subscription TV operators to create an anti-piracy group. Dubbed Alianza, it works with governments and regulators to combat the problem. By contrast, in Japan, the potential for the Internet video business is boosted by stringent regulations countering online piracy: Japanese Internet users who illegally download files face up to two years in prison and heavy fines.

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