

strategy&

***The digital future
of creative Europe***

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**The impact of
digitization and
the Internet on the
creative industries
in Europe**



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Digitization — the mass adoption of Internet-connected digital technologies and applications by consumers, enterprises, and governments — is a global phenomenon that touches every industry and nearly every consumer in the world. For every industry, digitization changes the way products are made, sold, and distributed, as well as how companies are managed, and how and with whom they compete. For many industries, digitization is completely revolutionizing the way companies interact with their customers.

Among the industries most profoundly affected by digitization are those engaged in creating content, which this study defines as including the book publishing, periodicals publishing, film and television, music, and gaming sectors. Nearly all of these sectors have been fundamentally altered by the penetration of digital media into everyday life. Some sectors, such as the music industry, have been wrestling with digitization for a decade or more; others, like periodicals publishing, are only now feeling its full impact. And in just the past couple of years, we have seen the emergence of new players in the creative industries, such as 3D printing creative services and digital museums, which are likely to become new sectors in their own right.

The objective of this report is to provide a comprehensive view of the impact that digitization has had on the creative industries as a whole, including its effect on consumers, creators, distributors, and publishers.

It is particularly important to look more closely at the prevailing myth of digital erosion — the idea that online media and the accompanying “for free” culture have led to a slowdown in growth and a loss of jobs. Indeed, digitization and the Internet are often named as the root causes for some of the creative industries’ problems — a perspective that fails to take into account many of the benefits of digitization.

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In this report, we take a more differentiated perspective, looking at each sector in detail. Our conclusion: The vast majority of all growth generated in today's creative industries is digital. Depending on the sector, the non-digital part of the business is generally stagnating or even shrinking, but the overall revenue picture is strong. All of the sectors have one thing in common: The digital side of the business is growing, enabling a 1.2 percent annual growth for the creative sector overall since 2003. This growth is primarily driven by direct consumer payments, which rose 22 percent between 2003 and 2013 — underlining the point that consumers continue to be willing to pay for creative content.

Furthermore, overall employment in the creative industries has been stable over the past 10 years, whether that is despite digitization or (more likely) because of it. Finally, digitization has significantly benefited consumers: Access to creative products and services has increased, and so has consumers' use of them.

This report presents data and case studies on how some creative industries and companies across Europe are successfully leveraging these developments and seizing the new opportunities they present, even as others are struggling to maintain their position.

Digital is and will be at the heart of the future of the creative industries, if only because the consumer has decided it should be.

Key highlights: Creative growth is digital

Mass adoption and high usage of the Internet have revolutionized the creative industries — but the biggest changes are yet to come. Overall, **creative industry revenues in the EU-27, including digital and non-digital businesses, grew 1.2 percent** compounded annually between 2003 and 2013, a total gain of 12 percent during the period, from €176.2 billion (US\$190.5 billion) in 2003 to €197.7 billion in 2013.

All of the growth in the creative industries comes from digital. Creative sector revenues grew by €22 billion between 2003 and 2013. Non-digital revenue was down €14 billion during that period, to €140 billion, but the loss was offset by an increase of €36 billion in revenue from digital, to €58 billion.

Consumer media usage continues to grow at a 4 percent annual clip, and across all the European countries we studied.

With revenues increasing 12 percent compounded annually, digital gaming has outgrown all other sectors. The film and television sector shows a steady 3 percent increase, and book publishing comes in at 1 percent, right around the industry average. Periodicals and music have seen a 2 percent average decline, a trend that is continuing for periodicals, but that is slowly turning around for music, which has been growing slightly from its low point in 2010.

Music sector revenues going to artists and labels remained constant between 2003 and 2013, because their percentage of the total doubled, to 66 percent.

Between 2003 and 2013, advertising-based revenues dropped by an average 1.5 percent annually, offset by 2 percent average annual growth in pay-based revenues such as subscriptions, streaming fees, and purchases of digital content.

The overall number of jobs in the creative sector in Europe has been stable at 1.2 million. Gaming and film and television added jobs, while all other sectors shed jobs.

Consumers continue to benefit from a greater variety of content available anytime and anywhere, generally at lower prices.

Content creators are benefiting from easier access to distribution and more channels of communication with their audiences; the value they have captured seems to be stable, if not growing, in most sectors.

The transformation to digital has been challenging for many creative industry players, particularly those established players that focus on the packaging and distribution of content. They include many recorded music companies, which have found it difficult to transfer their capabilities and business models to the digital ecosystem. New entrants and local companies, however, have gained easier access to global consumers.

The Internet has unearthed efficiencies in the creative industries, especially in manufacturing and distribution. Lower revenues are not necessarily a sign of weakness in these industries, as they are often accompanied by lower costs. Thus, the impact on profits varies significantly depending on each company's cost structure.

The new ecosystem architecture now emerging as a result of digitization is presenting great opportunities. At the heart of the most successful business models is a seamless consumer experience, increasingly being created by new market entrants, often in partnership with incumbent players.

1. Introduction: Setting the pace for change

Digitization changes the way products and services are produced, marketed, and consumed, a transformation that is especially pronounced in the creative industries. Consumers now expect to find information about media and entertainment on the Internet, shop online for the media they buy, and often receive the product online in fully digitized form, as a download of a movie, software package, publication, audio recording, or game.

One primary enabler of this shift has been the build-out of broadband infrastructure. This development is already quite advanced in the mature European economies, where broadband usage has been massively adopted over the past 10 years. In the EU-27 countries today, 75 percent of all inhabitants use the Internet (*see Exhibit 1, next page*). Although there are still large disparities among even the larger markets — in 2013, Internet usage ranged from 90 percent of the population in the U.K. to 58 percent in Italy — the penetration of digital infrastructure and services is generally high.

All indications suggest that the impact of digitization will only increase during the next few years. The European Commission's Digital Agenda is actively promoting digitization; one of its key objectives is 100 percent population coverage with 30 Mbps+ broadband by 2020.¹ Technological change also has its own momentum. According to a study by Ericsson, by the year 2020, the number of smartphone subscriptions in relation to the population will reach 95 percent in Europe.² That will enable more and more people to communicate conveniently, to access digital services, and to receive personalized and localized information on the go. Generation C³ — the cohort born after 1990, always connected, communicating, and clicking — already behaves in that way, and other demographic groups will follow suit. Older generations will use different services, such as online health monitoring and specific modes of communication, but they will go digital as well.

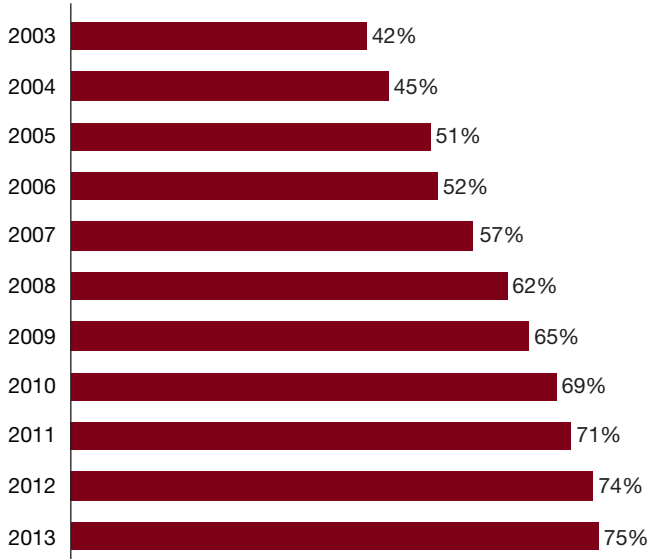
This is all welcome news. A 2012 study conducted by Strategy& for the World Economic Forum found that a higher degree of digitization tends to benefit consumers and the economy at large.⁴ In Europe, performance

Exhibit 1

Internet usage has grown significantly over the past decade

Internet usage between 2003 and 2013

EU-27, 2003–13, percentage of inhabitants

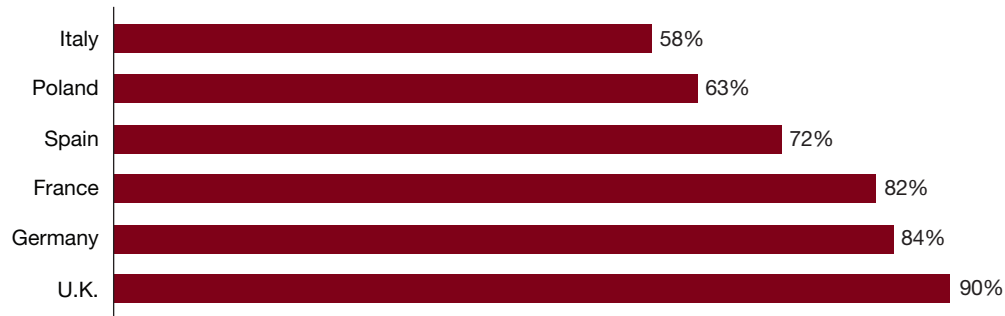


Leading E.U. countries:

Sweden 95%
Denmark 95%
Netherlands 94%

Internet usage in last three months

Focus countries, 2013, percentage of inhabitants



Source: Eurostat;
Strategy& analysis

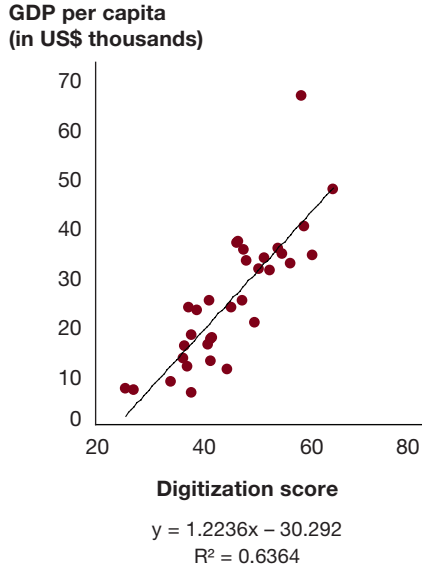
indicators of economic and societal well-being, such as GDP and the Better Life Index of the Organisation for Economic Co-operation and Development (OECD),⁵ are positively influenced by increases in the ubiquity, reliability, and speed of digital services. These factors are all used in determining a country or region's score on the Strategy& Digitization Index. In other words, the higher a country scores on the Digitization Index, the higher it is likely to rank in dimensions such as GDP per capita and the Better Life and Human Development indexes (see *Exhibit 2, next page*).

Digitization will bring changes in industries far beyond the media and entertainment sector. For example, innovation in digital fabrication (including 3D printing), machine-to-machine communication, and wearable computing will lead to the emergence of an “Internet of Things” in which material goods become far more fungible and customizable than they are today. Indeed, the issues facing the creative sector now will pose challenges to every industry in just a few years. By putting the right kinds of measures in place to understand the effect of digitization on the creative industries today, society has an opportunity to ensure that the continued rollout of digital development will be beneficial to all concerned.

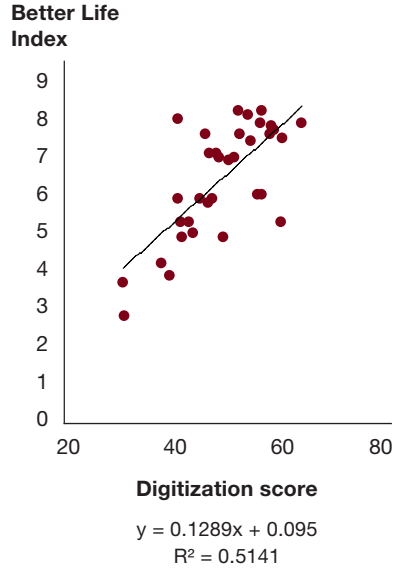
Exhibit 2

The correlation between digitization and quality of life is high

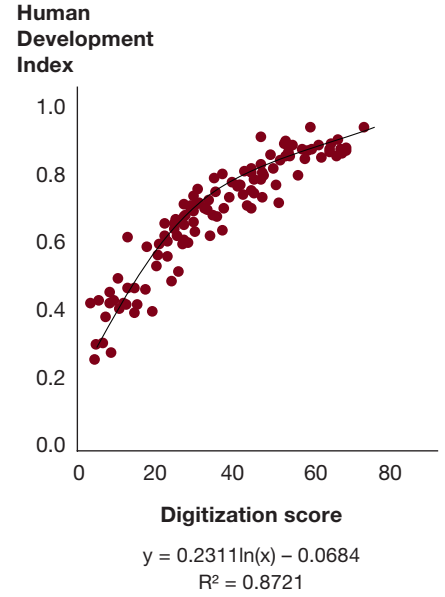
GDP per capita
(37 European countries)



Better Life Index
(34 OECD countries)



Human Development Index
(120 countries)



Note: GDP per capita is real GDP 2011. Better Life Index brings together internationally comparable measures of well-being (Stiglitz-Sen-Fitoussi Commission). Human Development Index is a composite statistic of life expectancy, education, and income indexes.

Source: OECD Better Life Index; Gallup-Healthways Well-Being Index; UNDP HDI; Oxford Economics; Strategy& analysis

2. Shifting value in the creative sector

Everyone has a basic understanding of what is meant by the “creative sector,” but there is no uniform definition. In the broadest terms, the sector has been defined to include everything from arts and crafts, architecture, design, publishing, film, television, music, radio, museums, galleries, and libraries, to public relations, marketing and advertising, and even IT services.⁶ To apply an even wider lens, the “creative sector” has been defined to include not only creative activities and occupations within creative companies and institutions, but also noncreative activities in support of creation (like accounting and administrative functions), as well as creative activities by sole contributors or independent contractors and in noncreative companies and institutions (such as public relations and graphics design functions in industries like banking and industrials).⁷

To provide a basis for a more focused assessment and discussion of digitization as a driving force in this sector, and to create a common ground to allow for comparisons across the EU-27 countries, this report defines the sector as “the end-user-directed creative industries,” which are part of the broader information and entertainment ecosystem. Our research focuses on five creative industry subsectors: periodicals publishing (newspapers and magazines), book publishing, film and television, music, and electronic gaming. These five are the major industries that depend on copyright from a revenue perspective, and our assessment includes both their digital and non-digital revenue-generating activities. We have also looked at emerging 3D-printing services and the growing digitization of the cultural sphere, particularly within the realms of museums and education.

As such, we have specifically excluded a number of industry subsectors, including live performing arts and sports events, fine arts (such as painting and photography), blogs and other content production activities not organized into a commercial format, and all B2B-directed creative production, including product design and architecture. And though the creative sector is invariably intertwined with such “enabling industries” as advertising

agencies, search engines, and social media, we have excluded these providers from our research on the creative industries as well, even though the revenues from such diverse activities do ultimately boost overall revenues for the creative industries. (We do include advertising-supported media, such as television and online periodicals, but not the advertising industry itself.) In short, our goal is to capture the impact of digitization on specifically consumer-oriented creative media, where the product has a for-profit, commercial purpose (see *Exhibit 3, next page*).

All the creative industries we studied include physical products and services as well as digital ones. Book publishers, for example, still produce hardcover and paperback print volumes as well as e-books. Still, in all five industries, the major trends in digitization are clear. The film and television industry has seen the introduction of a wide array of digital products — including Internet Protocol TV (IPTV), over-the-top (OTT) streaming, video-on-demand, and TV Everywhere — revolutionizing the industry and pushing revenues to new levels. The music industry has experienced a dramatic shift in distribution and consumption patterns, and the periodicals industry is beginning to undergo a similar shift. The gaming industry saw the introduction of completely new creative opportunities and revenue models. Finally, the book publishing industry is at the starting point of a paradigm shift, as more and more people receive and read their books on e-readers and tablets.

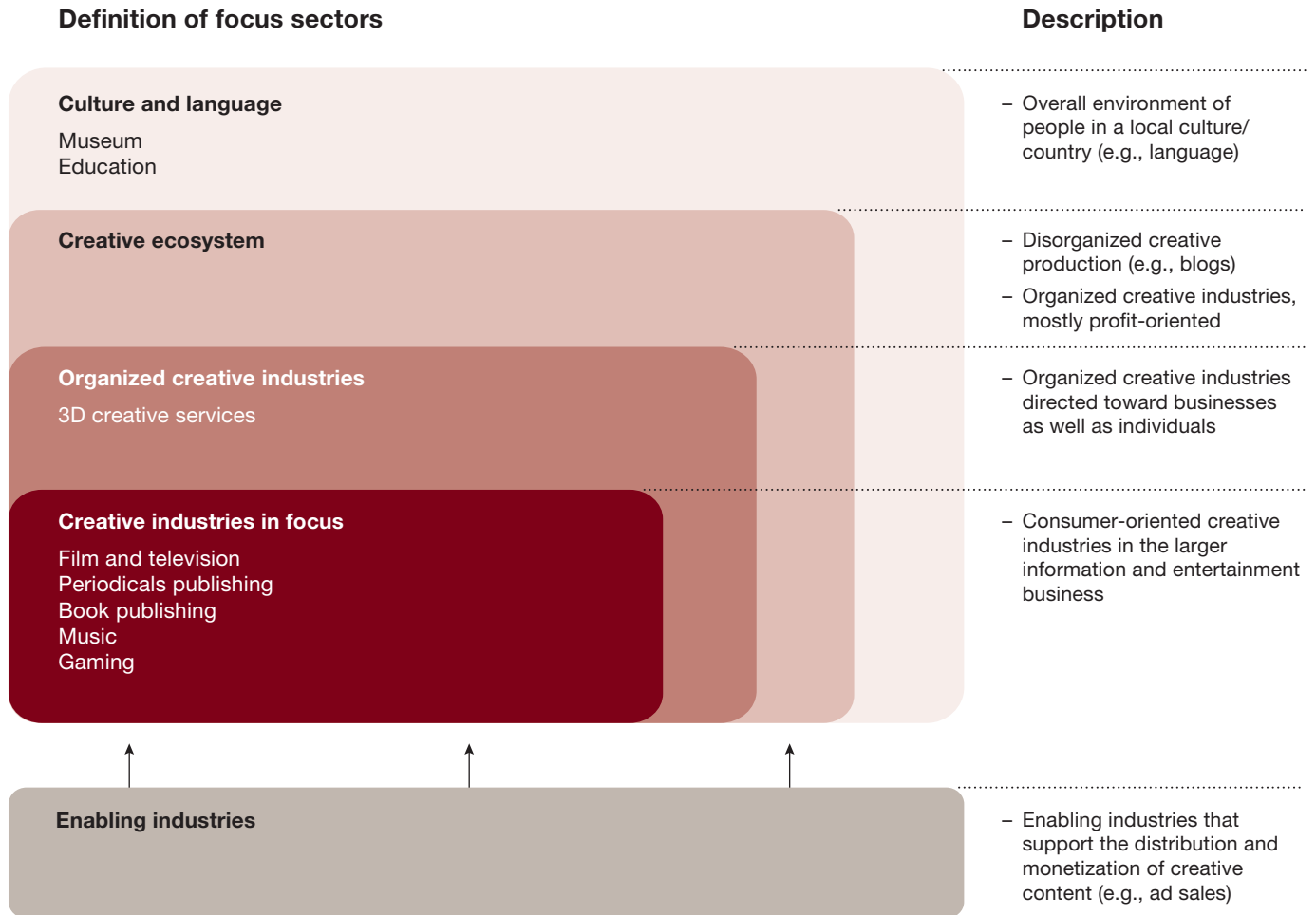
The creative industries, of course, are part of a social system that includes, at its outer layer, a country's or region's language and culture, which provides the basis and context for all creative production. This report covers the EU-27 (also referred to simply as Europe), while zooming in on six focus countries: France, Germany, Italy, Poland, Spain, and the United Kingdom. These six jointly account for more than 70 percent of Europe's population and GDP. Our study of the creative sector in these countries has yielded a number of observations:

- **All growth is digital.** The creative sector generated €22 billion in revenue growth between 2003 and 2013, with €36 billion from digital activities offsetting losses from other delivery platforms (see *Exhibit 4, page 16*). In some sectors, digital revenues are already making up the losses in non-digital revenue; in both film and television and book publishing, for example, consumer experiences emerging from digital media have started to mature and can now be monetized by industry players.

All the creative industries we studied include physical products and services as well as digital ones.

Exhibit 3

This study focuses on the largest consumer-oriented creative industries



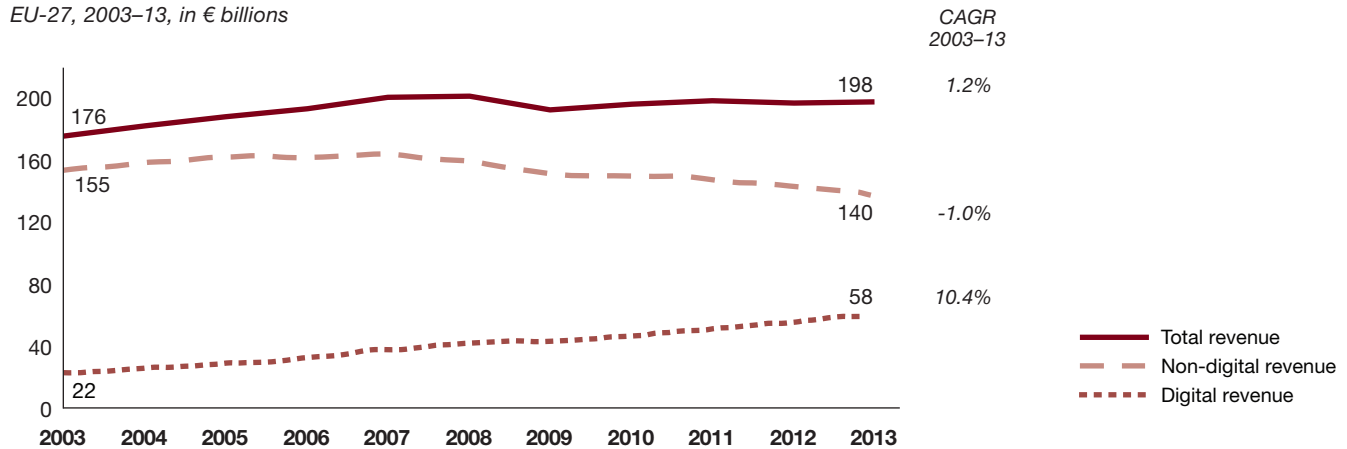
Source: Strategy& analysis

Exhibit 4

Overall, the creative sector has grown, with all the growth coming from digital products and services

Total digital and non-digital creative sector revenues

EU-27, 2003–13, in € billions



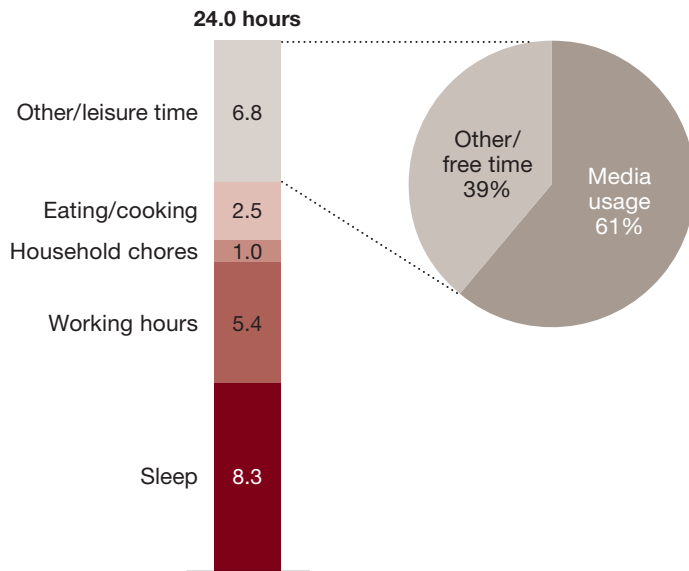
Source: PWC; eMarketer; Oxford Economics; Euromonitor; Strategy& company analysis

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- **Creative industries dominate leisure time.** The importance of the creative sector is best illustrated by the share of time people spend consuming creative products. Of the approximately seven hours per day the average European consumer has available for activities other than work, meals, sleep, and household chores, more than 60 percent are spent consuming creative industry products. This includes reading the newspaper and watching television (see Exhibit 5, next page). The role this sector plays in people’s lives can hardly be overstated.
 - **Different segments are developing at different rates.** The revenues for the creative sector were €197.7 billion across the EU-27 in 2013, up from €176.3 billion in 2003 — a compound annual growth rate of 1.2 percent (see Exhibit 6, page 18). This growth rate, which includes both the gains in digital revenues and the losses in non-digital, is below Europe’s overall GDP growth rate for the same period, but growth rates vary considerably among the individual segments. The periodicals publishing sector and the music sector have both contributed negatively to the creative industries’ top-line performance, showing, on average, negative growth rates over the

Exhibit 5

The creative industries' products and services dominate leisure time in Europe

Average day time split
EU-27, 2011



Source: Eurostat; IAB Europe's Mediascope Europe; Strategy& analysis

past 10 years. On the other hand, gaming and the film and television sector have outpaced Europe's GDP growth.

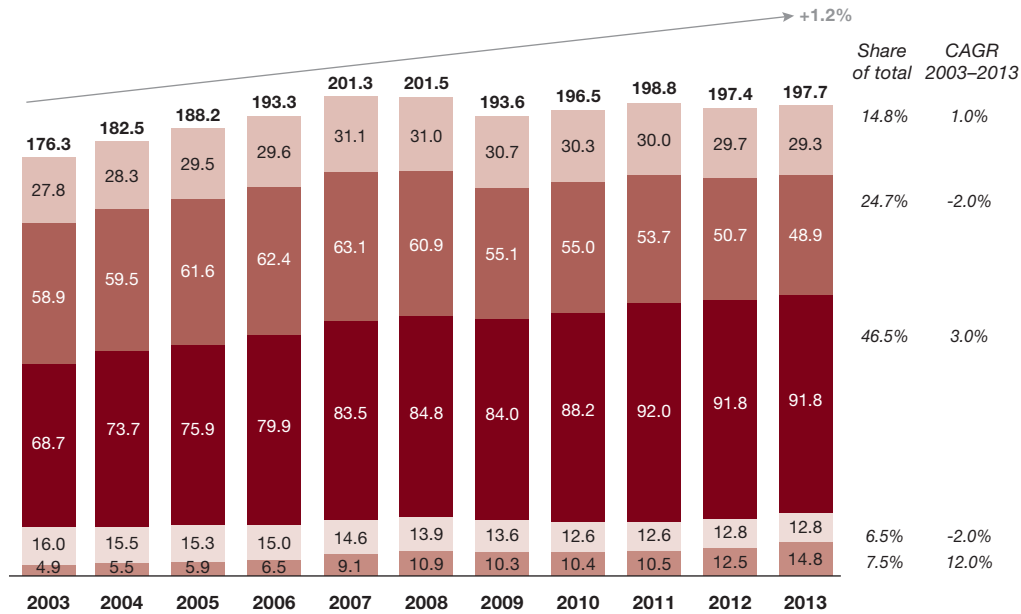
The film and television sector accounts for nearly 50 percent of the creative industry's total revenue, as well as for a major share of its growth. This segment has seen consistent growth over the years and was barely hit by the economic downturn in 2009. The main driver of film and television growth is the increase in subscription revenues, including those for premium cable and IPTV channels. Subscription revenues have grown by nearly €17 billion since 2003, almost doubling their size. Overall, this industry has benefited dramatically from the digitization of distribution networks, including IPTV and digital terrestrial television, as well as from the growth of new services such as Amazon Prime, Apple TV, Dailymotion, iTunes, Netflix, Maxdome, Watchever, and YouView, and innovations in video formats such as short-form digital video.

Online gaming has also proved to be a strong and steady growth segment over the past 10 years, with growth unaffected by the economic downturn in 2009. Developments in video console

Exhibit 6

The creative industries have been growing 1.2 percent annually, but growth rates vary among sectors

Creative sector revenue by industry
EU-27, 2003–13, in € billions



Note: Includes consumer spend and advertising revenues. Copyright fees are not included here. Numbers may not add up due to rounding.

Source: PwC; eMarketer; Oxford Economics; Euromonitor; Strategy& analysis

games, however, have been sporadic, and the segment's revenues were particularly affected between 2009 and 2011, resulting in negative growth.

The book publishing sector has grown only slightly in the past 10 years, at an annual average of about 0.5 percent. Growth in traditional book publishing slowed between 2003 and 2007, and turned negative in 2008. Strong growth from e-books starting in 2008, however, has partially offset the downturn in traditional book publishing. E-books made up about 5 percent of the total consumer and educational book market value in 2013, but so far, the digital revolution in the book publishing market has mainly been in e-commerce platforms (such as Amazon) and not in the product itself.

Periodicals publishing has experienced challenging times over the past 10 years, with a compounded growth rate of negative 2 percent. A shift in consumer behavior and changing usage patterns have led to declining offline circulation and dramatically decreased offline advertising revenues, which are down by €9.6 billion over the 10 years since 2003, while revenues from digital periodicals have increased by about €2.4 billion. The contrast only highlights how important it is for the industry to transition to commercially viable digital formats and business models that meet consumer needs and expectations, but it must further embrace the Internet as an attractive source of advertising eyeballs and pay revenues. Some publishers have shown that digital content can be monetized through new value propositions, and that consumers are willing to pay for it (see “*The Financial Times and its subscription model,*” next page). This trend is also evident in recent successes in the U.S., including the metered model for innovative Web presences adopted by the *New York Times* and more than 75 local newspapers published by Gannett.⁸

No industry has been transformed by shifting consumption patterns and changing revenue streams as much as the music business. Since 2003, overall revenues for recorded music and concerts have decreased by more than 2 percent annually. Revenues for recorded music sales, both digital and physical, have declined almost 45 percent, driven by a rapid drop in revenues from the sale of physical music, which are just 40 percent of their 2003 level. Still, on average, the decrease in revenues has not led to declines in the income of artists and labels. Moreover, income from concerts and, particularly, digital music sales is growing — digital music revenues have increased by an average of 28 percent annually since 2007, offsetting the decline in overall revenues since 2010 and driving modest overall revenue growth between 2011 and 2013. With respect to recorded music sales, however, the anticipated return to

Strong growth from e-books starting in 2008 has partially offset the downturn in traditional book publishing.

The Financial Times and its subscription model

One of the most successful examples of digital pay revenues for newspapers is the *Financial Times*. As early as 2001, it introduced a version of paid online content. In its current model, which dates back to 2007, users get a certain number of free articles each month, after which they have to buy a subscription. According to the newspaper's managing editor, "The Internet paywall was an incredibly good decision. It has probably guaranteed us survival. We can now see a future ahead of us."⁹

Key financial figures confirm this statement. In 2013 digital and services revenues accounted for 55 percent of the FT Group's revenues. In mid-2012, digital subscriptions topped 300,000 users for the first time, surpassing the number of print subscribers. Today, this number has risen to 455,000, representing almost two-thirds of the newspaper's total paying audience (see *Exhibit A, next page*).

FT.com offers a subscription package that works on PCs, mobile devices, and tablets, with mobile increasingly

one of the most important channels. Today about 62 percent of subscribers' consumption is through mobile devices. The FT app now counts more than 5 million users, with new mobile offerings via Google Newsstand and Flipboard further strengthening the company's offerings.¹⁰

A yearly subscription to the print edition plus online access costs £13.50 (US\$20.13) per week, the premium digital subscription (including e-paper access) costs £7.15 per week, and the standard online subscription costs £5.19 per week.

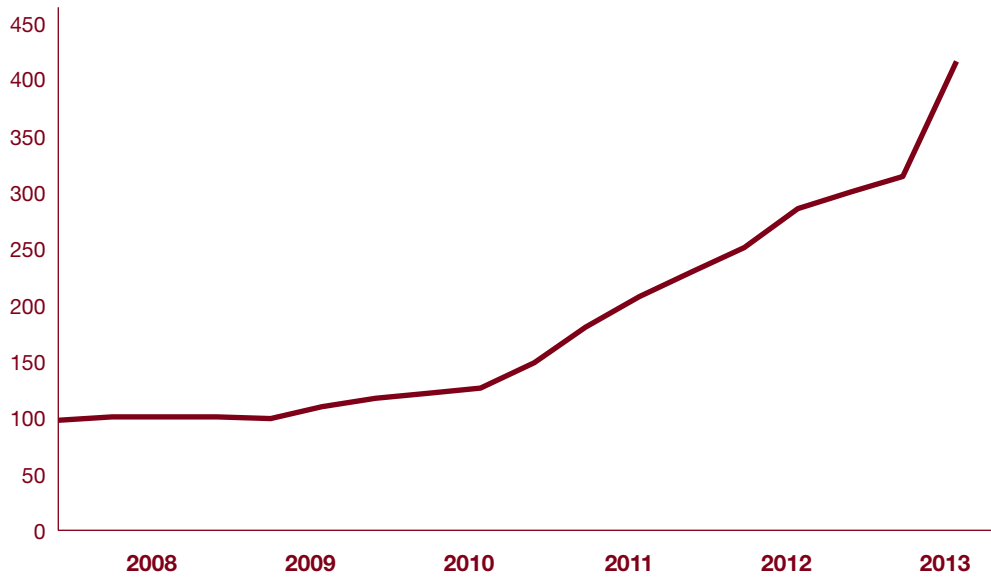
Subscription income has risen to 63 percent of revenues while the share from advertising has decreased to 37 percent. This is in stark contrast to the ratio more than 10 years ago, when advertising still represented about 85 percent of revenues. According to John Ridding, chief executive of the *Financial Times*, "It is very unlikely that advertising will support the kind of newsrooms that produce good quality journalism."¹¹

Exhibit A

Digital subscriptions to the *Financial Times* continue to grow strongly

Financial Times digital subscriptions

In thousands, 2008–2013



Note: Strong subscription growth after 2010 is mainly due to new features such as the introduction of mandatory registration for all users and new/improved access on mobile devices.

Source: *Financial Times*; Strategy& analysis

growth in 2012 and 2013, thanks to newly developed revenue models such as music streaming that have been gaining traction with consumers, has not yet occurred, though the rate of revenue decline has decreased significantly. (See “The Spotify story,” next page.)

- **The creative industry is growing in most countries.** Of the six focus countries we studied, only Poland’s creative industry grew faster than the country’s GDP — though its share of the European total is small — while revenues for the creative industry in Spain actually declined, driven primarily by a decline in the non-digital segments of its creative sectors (see Exhibit 7). Germany and the U.K. lead the focus countries in terms of absolute revenue contribution, but both exhibited weak revenue growth rates of no more than 1 percent since 2003. Despite these differences, the general industry trends are very similar across the six countries: Periodicals publishing is declining, music is stabilizing thanks to the growing importance of digital sales, and both the film and television and gaming sectors have developed into growing industries.

Despite solid growth over the past 10 years, the share of the creative industries in Europe relative to GDP has decreased, falling from about 1.8 percent in 2003 to around 1.5 percent in 2013. However, as explained later in this report, the most important reason for the lag in revenue development relative to GDP is a shift in the industries’

Exhibit 7

Since 2003, creative sector revenue growth has varied considerably from country to country

Creative sector revenue by country

Focus countries, in € billions

	2003	2013	CAGR
France	27.4	34.1	2.2%
Germany	37.2	40.9	1.0%
Italy	17.9	18.3	0.2%
Poland	2.9	4.3	4.0%
Spain	12.0	11.2	-0.7%
U.K.	34.6	37.2	0.7%

Source: PwC; eMarketer; Oxford Economics; Euromonitor; Strategy& analysis

The Spotify story

Spotify represents one of the clearest cases in which the benefits of digitization have created an entirely new value proposition for the consumer. This and similar services have revolutionized the music industry by providing a valid digital business model beyond paid downloads.

Launched in 2008 as a Swedish startup, Spotify delivered its services to 50 million users in 55 countries in 2014, with about 12.5 million paying subscribers.¹² It is the leading music streaming service in Europe, with growth to match; revenues have at least doubled each year for the past three years, reaching an estimated €750 million in 2013.¹³ Spotify users can choose between a free basic streaming service financed by advertising and a premium service for a subscription fee (€9.99 a month for full access, including mobile) that allows music streaming to multiple devices, an offline listening mode, better sound quality, and exclusive content — all without advertising.

With its two-tiered model, Spotify has successfully taken advantage of several current digital trends to deliver a better product to the consumer:

- Superior *discovery and search functions* allow users to navigate through a vast musical repertoire.
- *Personalized* radio channels, recommendations based on the music users usually listen to, and personal ratings help find new favorite songs and artists.
- *Offline and online modes as well as mobile solutions* and broad platform

compatibility allow subscribers to listen to music everywhere and on almost any device.

- *Social integration features* enable users to integrate their Spotify accounts with existing Facebook and Twitter accounts and share music and playlists with friends and followers.

Notwithstanding its success with consumers, Spotify's commercial viability is still to be determined. Up to now, losses have been mounting, because the majority of users are free subscribers and the company has not succeeded in sufficiently monetizing the model through advertising. Industry sources had expected the company to break even for the first time in 2013,¹⁴ but that didn't happen — losses amounted to about €60 million. Losses as a share of revenues, however, declined considerably, from 38 percent in 2010 to 8 percent in 2013. And one record label recently pushed the company to further restrict the availability of free content in hopes of driving more users to its paid model.

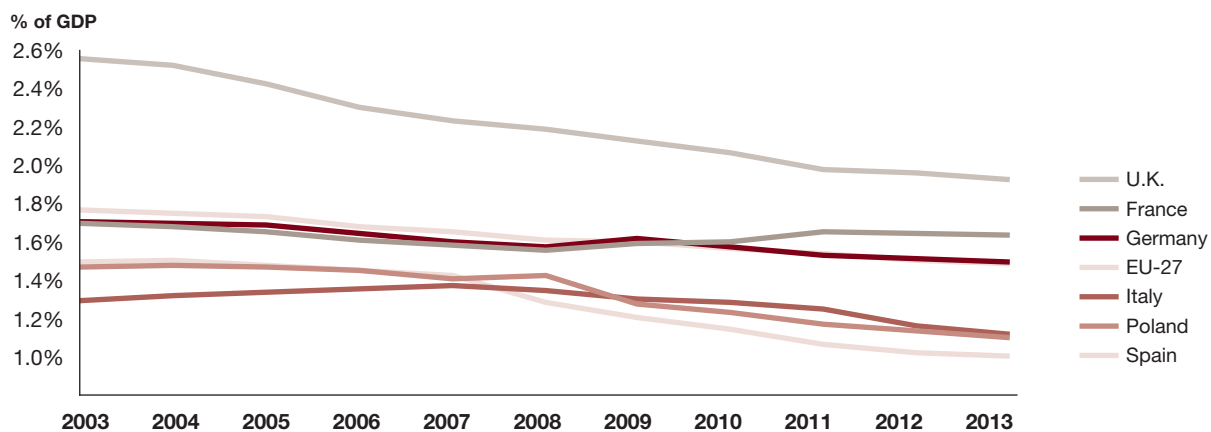
Spotify's potential for profitability remains significant, and its commercial dynamics will likely change with further growth, due to the nature of the contract that Spotify has signed with record labels (a minimum of 70 percent of total revenues is distributed to artists and labels) and its tremendous growth so far. According to Ken Park, chief content officer at Spotify, "This is the way people are consuming music, so the debate about whether it's a model to embrace has been put to rest over the last year."¹⁵

value distribution, with intermediaries in particular losing revenues as electronic distribution eliminates parts of the manufacturing and distribution chain and costs. As a result, though the revenue figures lag GDP growth, the profitability of individual companies has in many cases increased. Adding it all up, this is still a sizable industry and it remains an important part of the European economy (see Exhibit 8).

The overall number of jobs in the creative sector has remained constant at about 1.2 million over the past 10 years (see Exhibit 9, next page). However, the pattern of job growth varies by sector. As with revenue development, the film and television sector is a significant driver of job growth. The gaming sector presents a growth story, with employment tripling between 2003 and 2013. In contrast, music and periodicals and book publishing have all experienced considerable job losses in the past 10 years. What these figures do not show at the aggregate level is the significant change in job profiles and employment patterns across the various sectors' value chains.

Exhibit 8
Europe's creative industries have declined slightly as a percentage of the continent's GDP

Creative industries' share of GDP
 EU-27 and focus countries, 2003–13



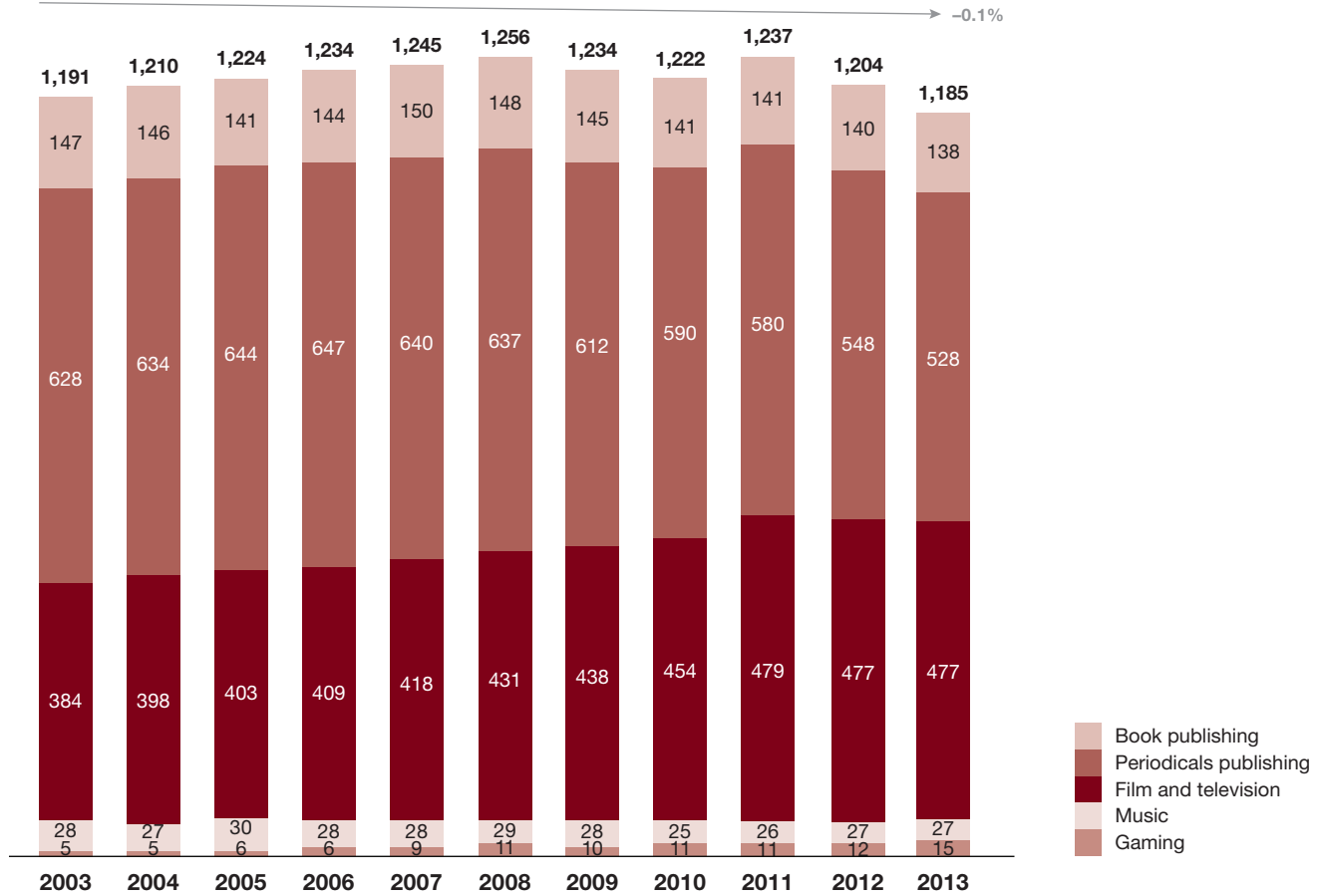
Source: PwC; Oxford Economics; eMarketer; Strategy& analysis

Exhibit 9

The number of jobs in the creative industries has remained constant over the past decade

Jobs in the creative industries

EU-27, 2003–13, in thousands



Note: Numbers may not add up due to rounding.

Source: Eurostat; national statistical offices; national business associations; Strategy& analysis

New digital-centric business models and associated processes, services, and skills are driving a number of changes — notably a migration of jobs from traditional employers, such as publishers and television networks, to new types of digital enabler businesses, including digital agencies and specialized technology service providers, which serve more traditional players as they themselves transition to digital business and production models. This movement has also given rise to a new generation of independent contractors, digital consultants, and creative freelancers, who value their independence and ability to pursue new opportunities in this rapidly evolving ecosystem. The number of contractors, consultants, and freelancers is not measured in our study, but digital platforms designed to match freelancers with clients are another growth industry. Freelancer.com, which is now a major player after a string of acquisitions, has more than 72,000 publishers registered on its U.K. site. TotalProfessions.com, a U.K.-based career site, estimates that about 500,000 people work in the creative media sectors in England, more than a quarter of whom are freelancers.

Broadly speaking, while established employers are facing considerable workforce restructuring challenges as they cope with the demand for new skills, and are contracting as a result, a new class of small to medium-size employers is taking shape. It remains to be seen whether the established players will internalize new capabilities through acquisitions, or if the balance in employment patterns is shifting permanently.

3. *The consumer's perspective*

There is little doubt: Thanks to easier access to more extensive, more diverse, and more relevant content, the consumer has been a huge beneficiary of digitization in the creative industries.¹⁶ This view of the consumer's digital dividend appears to be widely shared among representatives of the creative industries. In our survey of experts, nearly all the respondents agreed that consumers use more creative content than ever before and that they gain access to more relevant content as a result of digitization. Consumers benefit from a rising number of TV channels, online access to nearly the entire music catalog through streaming or downloading platforms, access to global news providers across the world, insights into recommendations from friends and opinion leaders, and much more.

A key driver of change is the proliferation of new devices. Starting in 2010, many more consumers started to access the Internet through platforms other than the PC, especially smartphones and tablets. According to a 2013 report by IAB Europe, 12 percent of Internet users in Europe accessed the Internet via tablets, while in the U.K. and Italy the figure was estimated at 25 and 19 percent, respectively. Furthermore, ownership of Internet-enabled mobile phones has increased by 42 percent in the past three years, leading to strong growth in time spent on the Internet via mobile devices.¹⁷

Smartphones and other mobile devices are enabling a growing number of local services, such as Facebook's check-in feature, which allows people to use their smartphones to tag themselves with their current location as a way to connect with friends who may be nearby. This is partly driven by new access models; nearly 50 percent of users regularly access social networks via mobile phones' apps or browsers. Furthermore, social networks are not a phenomenon of the young anymore; 37 percent of people 55 and older use social media channels daily.¹⁸ Clearly, the current buzz around consumers going "social, local, mobile" couldn't be more true.

With most new platforms, consumers get the opportunity to participate — in everything from rating restaurants to uploading videos to commenting on articles to participating in the democratic process.

The spread of digitization is rapidly changing the very nature of consumer demand. Here are some of the most important developments we are seeing:

- **Growing consumption of creative products:** Since 2003, the average time spent daily on all digital and non-digital media platforms has increased by close to 50 percent, to more than four hours in 2012 (*see Exhibit 10, next page*). The main driver of this development has been the increase in film and television usage, and especially Internet usage — the time spent online increased more than threefold across the EU-27 during the period. This is due, in part, to an overall increase in media consumption, but it has also come at the expense of the consumption of periodicals. The growth in Internet usage was particularly pronounced in 2011 and 2012, which suggests that Internet usage will only increase further in the years ahead.
- **Increased time spent on the Internet** is driven by a multitude of factors, not just the proliferation of smartphones and tablet devices. New and improved product offerings for media consumption, e-commerce, and social networks have contributed greatly to increased usage. According to research conducted by GO-Gulf, only an estimated 20 percent of time on the Internet is dedicated to reading content, with another 13 percent spent on multimedia sites. The rest is split among social networking (22 percent), search (21 percent), email and communication (19 percent), and online shopping (5 percent). Nevertheless, the increase in time spent online has led to a substantial increase in media usage overall. Bottom line: Between 2003 and 2012, media usage increased by almost 50 percent.
- **Different stages of development:** The degree to which technology and usage patterns are changing varies considerably among European countries. Yet all of the countries have one thing in common: TV is the most frequently used platform, closely followed by the Internet (*see Exhibit 11, page 30*). However, the increased penetration of Internet television, IPTV, and OTT technologies such as Netflix, Maxdome, Amazon Prime, and WhereverTV is blurring the lines between traditional linear TV and Internet usage.
- **Different usage patterns:** Absolute time spent with the Internet exceeds time spent with periodicals publishing in every focus country. However, a closer look at the share of Internet usage

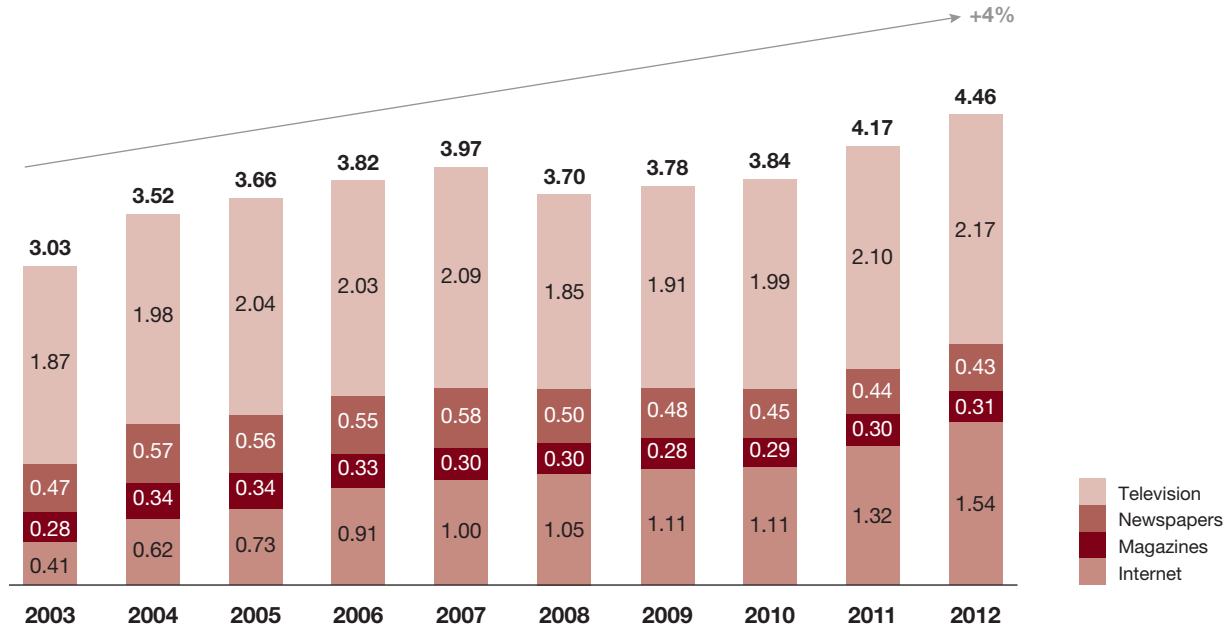
All of the countries have one thing in common: TV is the most frequently used platform.

Exhibit 10

Most of the growth in media usage in Europe has occurred in film and television and the Internet

Media usage

EU-27, 2003–12, in hours per day



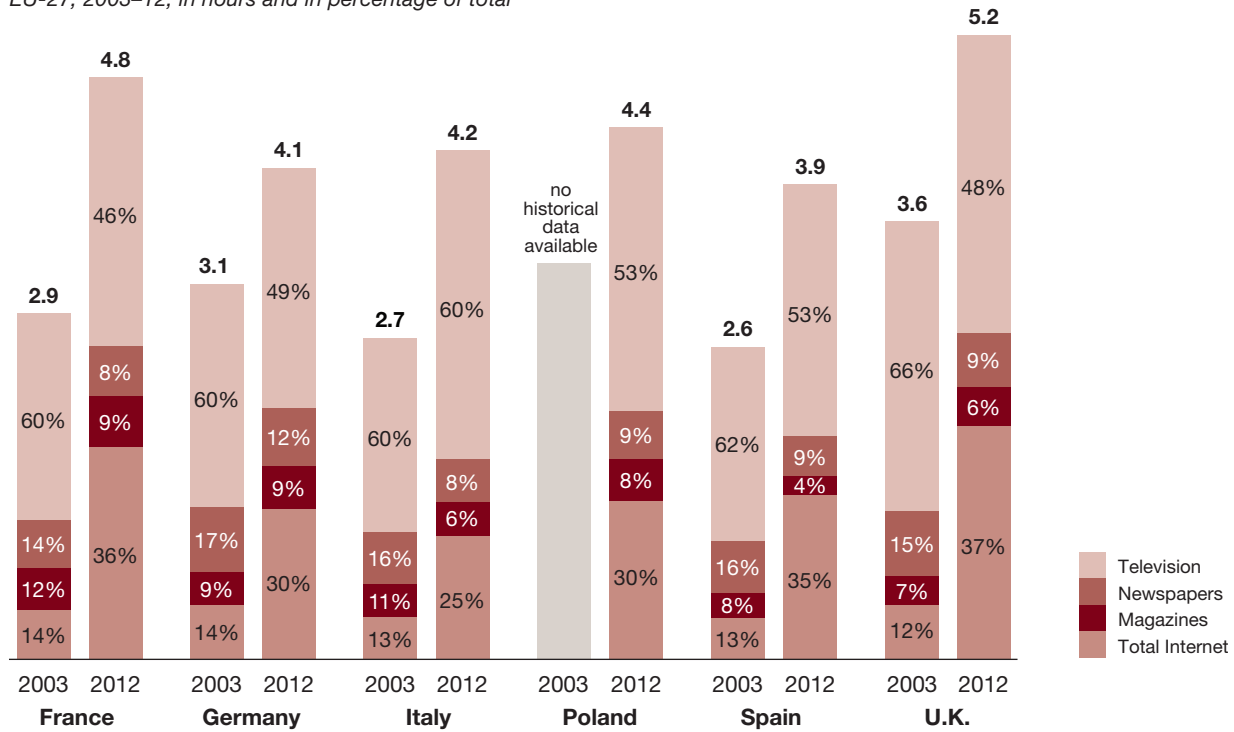
Note: Numbers may not add up due to rounding.

Source: IAB Europe's Mediascope Europe; Strategy& analysis

Exhibit 11
How media is consumed varies from country to country

Media usage split

EU-27, 2003–12, in hours and in percentage of total



Note: Sums may not total 100 due to rounding.

Source: IAB Europe's Mediascope Europe; Strategy& analysis

reveals some critical differences. In Italy, for example, the share of Internet usage is only about 25 percent, far from the 37 percent usage in the United Kingdom. The reason for the difference is not the intensity of the Italians' daily usage (the time spent online) but the penetration of access (the percentage of people with access to broadband). Industry experts point toward a renewal of government interest in supporting broadband penetration in Italy and the rollout of mobile technologies, which will likely increase broadband access throughout the country during the coming years.

- **Management of perceived risks:** Several concerns among the media-consuming public have affected attitudes toward digitization, including data security, fear of online fraud, and concerns about viruses and malware. Though all these concerns must be taken seriously, they can be managed through appropriate technological and governance mechanisms. Ensuring that consumers can feel confident about their time spent online will depend on the willingness of online services to boost their own privacy and security efforts.¹⁹ These include threshold standards for network integrity and quality of service, protections for privacy and data security, protection of minors, and avoidance of theft. Ignoring such measures will slow the spread of digitization, which could have detrimental effects on a country's economy as a whole.

Public awareness of digital privacy and security risks has been spurred by recent news concerning apps that transmit consumer data; current legislative efforts involving privacy, piracy, and ancillary copyright; and the emergence of "pirate parties" — political movements centered in Sweden and Germany that aim to prevent legislative efforts to limit the freedom of the Internet.

- **Willingness to pay:** Analysis shows that consumers remain willing to pay for content in the digital arena. Some observers question whether current online business models for the creative industries are sustainable, and many believe that consumers are less willing to pay for digital products than their physical equivalents. But recent research is leading to a different conclusion: Consumers overall are spending more on products and services from the creative industries than ever before, and this revenue stream will continue to constitute the creative industries' largest and most promising growth opportunity.

The significant increase in media usage is reflected in increasing pay revenues from online products and services in Europe, which are up 29 percent compounded annually between 2003 and 2013. Pay revenues per usage hour have increased by 25 percent for film and television, decreased by 4 percent for the publishing industry,

Consumers are spending more on products and services from the creative industries than ever before.

and increased by more than 160 percent for Internet-related products and services such as digital newspaper editions and online games (see Exhibit 12). The pay monetization of Internet usage hours shown in the exhibit is relatively small, for two reasons: First, usage is split among many more outlets and providers than in print publishing or film and television, so on average, each collects a smaller share of overall revenues. Second, the usage hours also include all products and services currently available free of charge.

For example, most news websites are still available without a paywall and supported solely by advertising. If we excluded nonpaid content usage from the analysis (assumed at 80 percent of time spent on the Internet), the monetization per paid usage hour in 2003 would jump to the level of print monetization.

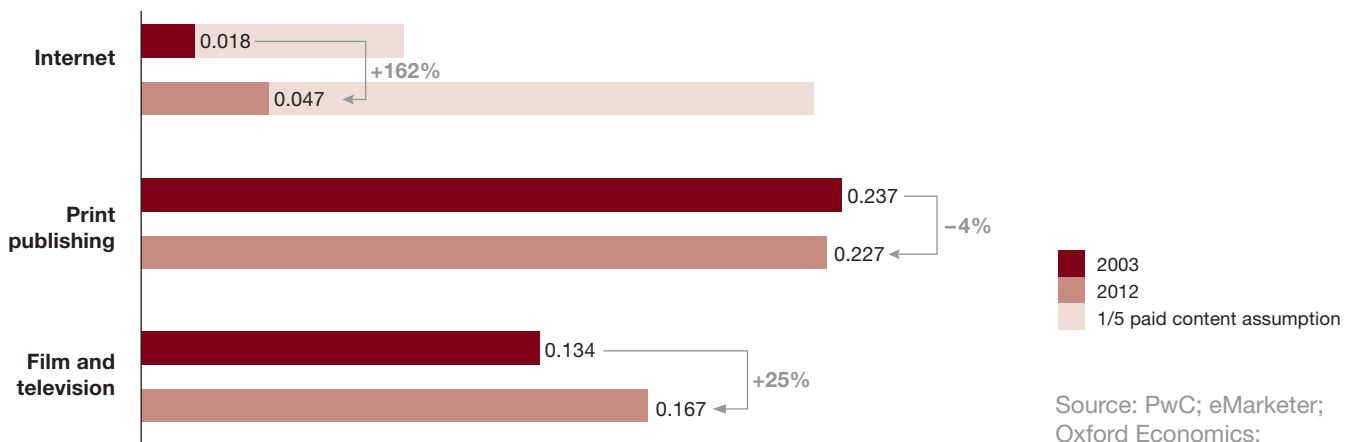
The results of a survey conducted with more than 100 representatives from the creative industries in the focus countries suggest a similar perspective: Only 21 percent of respondents believe that the willingness to pay is declining. About 57 percent saw clear improvements, and another 21 percent saw no change.

Exhibit 12

Overall, the monetization of media usage in Europe has risen considerably

Media usage pay monetization

EU-27, 2003 and 2012, in € per hour



Source: PwC; eMarketer; Oxford Economics; Euromonitor; IAB Europe's Mediascope Europe; Strategy& analysis

4. *Impact on creative production and output*

Creators are benefiting almost as much from the digital revolution as consumers are. In nearly every sector, they are using the Internet and other digital technologies not just to make the content they sell but also to distribute it more efficiently and present it more effectively to their audiences. There are several reasons for this.

First, digitization has revolutionized the way creators work and collaborate. Even data-heavy film production is fully digitized today, and collaborators from around the globe can access the same video material in real time.

Second, digitization has brought the creator a lot closer to the consumer. As a result, distribution of content has become less of a bottleneck in many markets. It is possible for creators to reach the consumer directly by complementing or circumventing intermediaries and gatekeepers. To be sure, this power shift implies a significantly changed economic model in most of the creative industries, but it also gives creators the opportunity to build closer relationships with their audience, learn more about consumer preferences, and tailor their products to the consumer's needs.

Third, digitization enables a greater pipeline of creative material generated by consumers themselves. Today, a much broader set of people can become creators, with the same chance — at least theoretically — of reaching a mass audience and achieving mass success. In other words, the distinction between consumers and creators has become blurred. This is often perceived as a threat to creators, but it also represents a promise: that as the audience becomes more sophisticated and engaged, its level of interest and awareness in all forms of creative content will only increase. This is one of the reasons the music industry has been able to reverse the past trend of declining revenues, with new models building on this promise.

A shift in value distribution away from intermediaries and toward consumers and creators has accompanied this change. Digital innovation has made creative production and distribution more

Distribution of content has become less of a bottleneck in many markets.

efficient, driving down the overall top line of the sector but not necessarily affecting the bottom line. That's why the creative industry remains profitable. For the creators, a higher share of value partly compensates for the overall lower revenue of the sector. This dynamic is most evident in the music industry, the most digitally advanced creative business. With the establishment of digital downloads as an alternative to physical recordings, the economics of the industry fundamentally changed. About 66 percent of revenues from a download go to the artist and label, compared to around 32 percent for a CD sale. The additional share for artists and labels is coming almost entirely from intermediary and distribution costs that have been reduced as a result of the new format (*see Exhibit 13, next page*).

Despite the general decline in recorded music revenues since 2003, the overall artist and label revenues have remained largely constant (*see Exhibit 14, next page*). In 2013, the split of artist and label revenues was around 28 percent from recorded music (compared with 39 percent in 2003), 44 percent from copyright licensing (compared with 36 percent), and 29 percent from concerts and festivals (compared with 25 percent). This indicates a significant diversification of revenue streams beyond recordings for artists and labels.

In fact, with the emergence of digital platforms and technology, the music industry has shifted toward a mixed economy dependent on a wide variety of artist and label revenue streams, some of which did not exist just a few years ago. As a result, the dynamics of the industry have changed. Among the revenue streams that either are new or have been expanded by the possibilities of the Internet and digital evolution:

- Digital sales are generated by selling music digitally or online, with the revenue paid directly to labels or to artists via digital aggregators such as Zebralution, the Orchard, and Believe Digital.
- Internet retail sales are generated by large online retailers such as Amazon as well as new, dedicated online music stores such as Nimbit, Bleep, and CD Baby, to name a few.
- Digital performance royalties are revenues generated for artists and labels when music is played via platforms such as Spotify, Last.fm, and Deezer.
- Cloud storage payments are revenues generated for artists or labels by services that store music for customers in the cloud. The funds are provided directly to the labels or to artists via digital aggregators.
- Master use and sync licenses involve licensing of existing recordings for movies, TV, commercials, video games, and the like. The growth

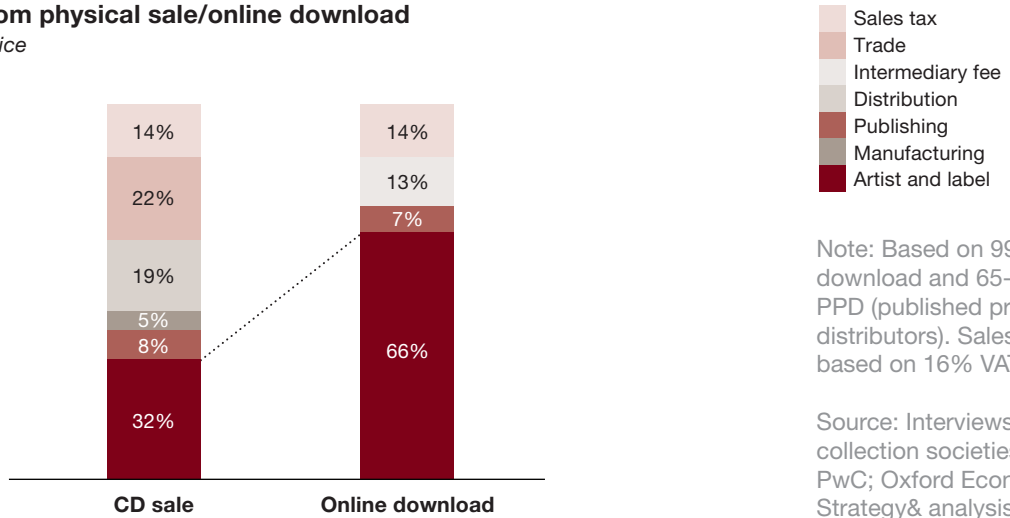
Despite the decline in recorded music revenues, the overall artist and label revenues have remained largely constant.

Exhibit 13

Digitization has dramatically changed the distribution of profits from music sales

Profit distribution from physical sale/online download

As percentage of sales price



Note: Based on 99-cent download and 65-cent PPD (published price to distributors). Sales tax based on 16% VAT rate.

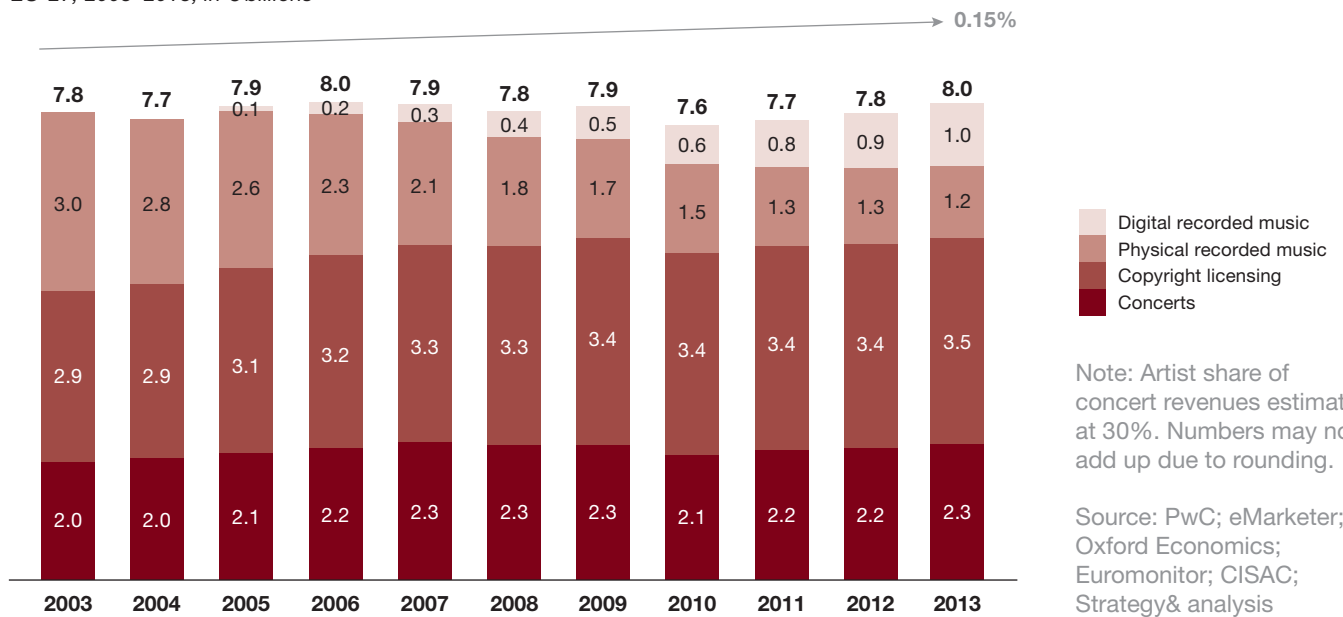
Source: Interviews; collection societies; PwC; Oxford Economics; Strategy& analysis

Exhibit 14

Total revenues and profits for artists and labels have been essentially flat since 2003

Artist and label revenues

EU-27, 2003–2013, in € billions



Note: Artist share of concert revenues estimated at 30%. Numbers may not add up due to rounding.

Source: PwC; eMarketer; Oxford Economics; Euromonitor; CISAC; Strategy& analysis

of digital platforms, particularly YouTube, has also seen the establishment of new rights such as digital synchronization.

- Ringtone revenues are generated by licensing songs for use as ringtones.

Brand-related revenues also contribute:

- The YouTube Partner Program provides advertising revenue, paid to partners by YouTube.
- Advertising revenues are generated by the artist's or label's individual website properties and can be measured by number of click-throughs or by total sales commissions.
- Fanfunding provides revenue streams directly from the fan base to support recording, tours, and the like, through crowdfunding platforms such as Kickstarter, AkaStarter, and Rocket Fuel, to name a few.²⁰

New digital platforms and technologies have particularly changed the dynamics for artists. Traditionally, artists relied on four key revenue streams: live performances, record sales, royalties from public performances and/or licensing, and merchandise. Furthermore, a distinct split existed in the music industry between artists signed to major labels with access to large-scale promotional capabilities and independent artists, who were largely excluded from commercial marketing. Now, however, the growing importance of the Internet and the vast range of new distribution and social platforms have opened up unprecedented access to global promotional and distribution services for signed as well as unsigned artists. That, in turn, has not only reduced the barrier of entry to the music industry for all artists but also given them global reach. Today, every artist has the option to publish his or her content via streaming and Web-casting platforms and receive compensation in the form of royalties.²¹

This development has also opened up opportunities for artists who have been dropped by their label to seek out alternative channels. Furthermore, consumers today have the choice of buying single tracks rather than whole albums, significantly lowering the barrier to music discovery. And digital platforms offer new ways to discover music and artists, through social sharing, algorithm-based recommendation engines built into streaming and other distribution platforms, or curation services by friends or (self-proclaimed) experts and opinion leaders. Industry experts seem to agree on the potential of finding great new music through “serendipity.”²²

All this has also affected the sheer number of active artists, according to Jacob Herbst, head of digital sales and business development at Sony. “We now pay out royalties to more artists than ever before,” he says. “Ten years ago, the vast majority of our revenue came from a smaller number of artists,”²³ a shift that arguably democratizes the music industry. Because the shift toward this more democratic, mixed economy is fairly recent, the true benefits to artists have yet to be demonstrated. Much will depend on how the royalty terms offered to artists and labels will develop. In fact, fair artist compensation is subject to ongoing heated debate, engaging prominent artists such as Radiohead front man Thom Yorke²⁴ and former Talking Head David Byrne.²⁵ More recently, Taylor Swift removed her music from streaming distribution entirely.²⁶ This indicates that the search for sustainable digital music business models that are mutually beneficial for artists, labels, and distributors will likely continue. Furthermore, it is questionable whether these developments hold true for the whole of the industry and whether genres such as classical music and jazz, which have generally been insulated from the commercial aspects of the music businesses, will be equally affected by the new market dynamics.

In short, although recorded music revenues are down about 27 percent from 10 years ago, most of the decline took place in the early stages of change. Since 2007, mainly as a result of increasing digital sales, recorded music revenues have remained more or less stable. Helping to make up the lost revenue from recorded music sales has been the increase in licensing fees paid to artists and labels, which rose from €2.9 billion in 2003 to €3.5 billion in 2013 across Europe. (These licensing fees are not explicitly covered in the overall music numbers, which is why this view of artist revenues does not match the music industry revenues.)

Copyright licensing has benefited from the increased use of music in a rising number of TV channels, more flexible online fee structures that enable new business models (such as Spotify) to prosper, and improved international licensing. Furthermore, concerts have remained a stable source of revenue for artists through the years. The effects of digitization on those value pools are almost paradoxical: Even as revenue from sales of recorded music has gone down, the digitization of TV distribution has led to a plethora of new channels, significantly driving up the use of music and resulting licensing fees.

The fourth reason that creators are major beneficiaries of the digital revolution is that new models like crowdfunding are complementing traditional creative financing models. A major obstacle for the “consumer/creator” model (in which the boundaries between consumer and creator are blurred) has been access to the financing needed to make professional products that consumers are willing to pay for.

The search for sustainable digital music business models that are mutually beneficial for artists, labels, and distributors will likely continue.

Traditional artists with a proven track record continue to have easier access to financing than the independent consumer/creator does. However, new sources of funding, such as European crowdfunding platforms, are establishing new niche markets where anyone can pitch projects to the “crowd” in order to receive financing from multiple (mostly small) donations. In return, donors receive the to-be-created product and other benefits such as access to special concerts and events.

The crowdfunding industry is still in its infancy but has shown tremendous growth in the past few years: Total funds raised in 2011 reached more than €1.1 billion worldwide and, as projected, almost doubled in 2012, to about €2 billion.²⁷ Growth was particularly strong in Europe, which achieved 65 percent higher volumes and collective growth of 125 percent.²⁸ (See “*Studying Startnext*,” next page.) As crowdfunding picks up momentum across Europe, the European Commission is recognizing its importance as a viable financial instrument, recently publishing a communication on unleashing the potential of crowdfunding in the European Union (E.U.). The communication, among other issues, highlights the importance of harmonizing standards at the national and European levels and endeavors to launch a study to examine existing national self-regulatory bodies to explore the potential of establishing a European quality label for crowdfunding.²⁹

Studying Startnext

Startnext is one of the most successful German crowdfunding platforms, with a market share of about 85 percent of crowdfunded projects in Germany in 2014. In a nascent market, Startnext has already received €10 million in funding for creative projects since its launch in 2010. Generally, two main crowdfunding models are available:

- Equity-based funding, wherein the financial backers take an equity stake in the firm — an extension of the family and friends founding rounds, to some extent
- Reward-based funding, wherein the creator receives backing for a defined product or service he or she promises to deliver in order to satisfy the donors

In Europe, both the reward- and equity-based funding options are popular. By contrast, in the U.S., because of current regulation, equity-based funding is negligible. Startnext has a clear focus on

the reward-based model, which is also the most suitable approach for creators to achieve financing. Of the more than 3,000 active projects in December 2014, the most popular creative products looking for crowdsourcing were small film or video productions (839 projects on Startnext), music projects (640), event projects (234), and theater projects (228).

Unlike other crowdfunding platforms, Startnext does not charge a fee for its services. Individual backers are asked to contribute a voluntary amount in order to sustain and further develop the platform.

Startnext also offers regional crowdsourcing platforms in close cooperation with local cultural funding authorities and private foundations (in Hamburg and Dresden, for example), where selected projects get access to the platform. The sponsoring foundation or cultural authority matches the investments or donations that come from the crowd.

5. Varying digital maturity across creative industries

The growth in the creative industries is being driven by digital and consumer payments, rather than by advertising. Growth in purely digital revenues amounted to nearly €34 billion in Europe from 2003 to 2013. In some sectors, new digital revenues made up for losses in non-digital revenues, but further opportunities created by the shift to digital are still waiting to be captured by players in all the creative sectors.

This report considers the changing prospects for a diverse set of creative industries, from book publishing, now more than five centuries old, to the recently established gaming sector. As is to be expected, digitization is playing out differently and at different speeds in the various industries, and even more so across different countries. Nevertheless, two trends are already clear: All growth in the creative industries has come from digital, and it is driven primarily by consumers paying for content and services (*see Exhibit 15, next page*).

In 2013, digital revenues accounted for 29 percent of total revenues in the creative industries. In absolute terms, digital revenues now total nearly €58 billion across Europe, an increase of about €34 billion over 10 years. A large part of that growth can be attributed to TV subscriptions for services such as IPTV and premium pay models that often operate in separated ecosystems and walled gardens (*see Exhibit 16, page 42*).

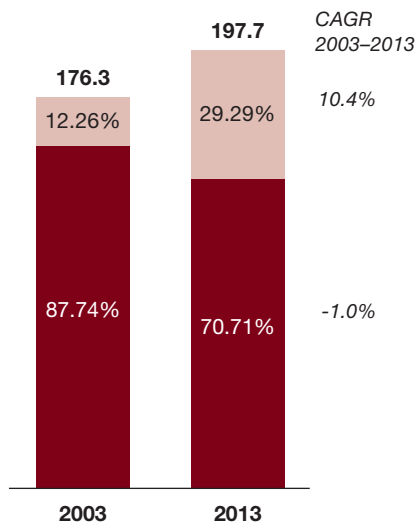
Internet television platforms have already had a significant impact, increasing the breadth of content available; offering the ability to upload content, both (semi-)professional and user-generated; and fostering new consumption habits such as on-demand and parallel usage with other platforms including social media. Platforms such as Dailymotion, YouTube, Clipfish, and Wuaki.tv have already accumulated significant reach, while pay models for premium content, such as Netflix, Maxdome, Watchever, Amazon Prime, and Sky Snap, which include the potential for paid advertising, are building on the free platforms' popularity. All in all, the growth prospects for these new ecosystems are strong.

Exhibit 15

All the revenue growth in the creative industries has come from digital and from consumer payments

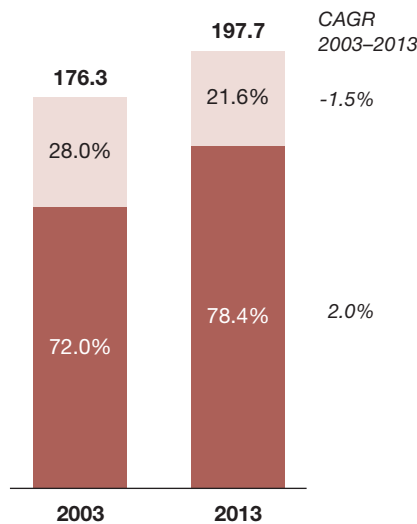
Revenue split by type

EU-27, 2003 and 2013, in € billions and percentage of total



Revenue split by source

EU-27, 2003 and 2013, in € billions and percentage of total



Source: PwC; eMarketer; Oxford Economics; Euromonitor; Strategy& analysis

Already, many other media companies have boosted their revenues by following consumers online. As noted in chapter 2, they have successfully introduced a variety of new business models to monetize their content and create new experiences, such as music streaming services and high-definition downloads on video platforms, covering a wide range of topics, from news to infotainment. And as innovation in media business models accelerates, strong growth is expected to continue.

Digital and non-digital revenues are also becoming more interdependent. For example, many newsrooms file both Internet and print versions of stories, often with extra interactive features on the Web but using the same basic content. Newspaper and periodical subscriptions often include both the print and digital versions.

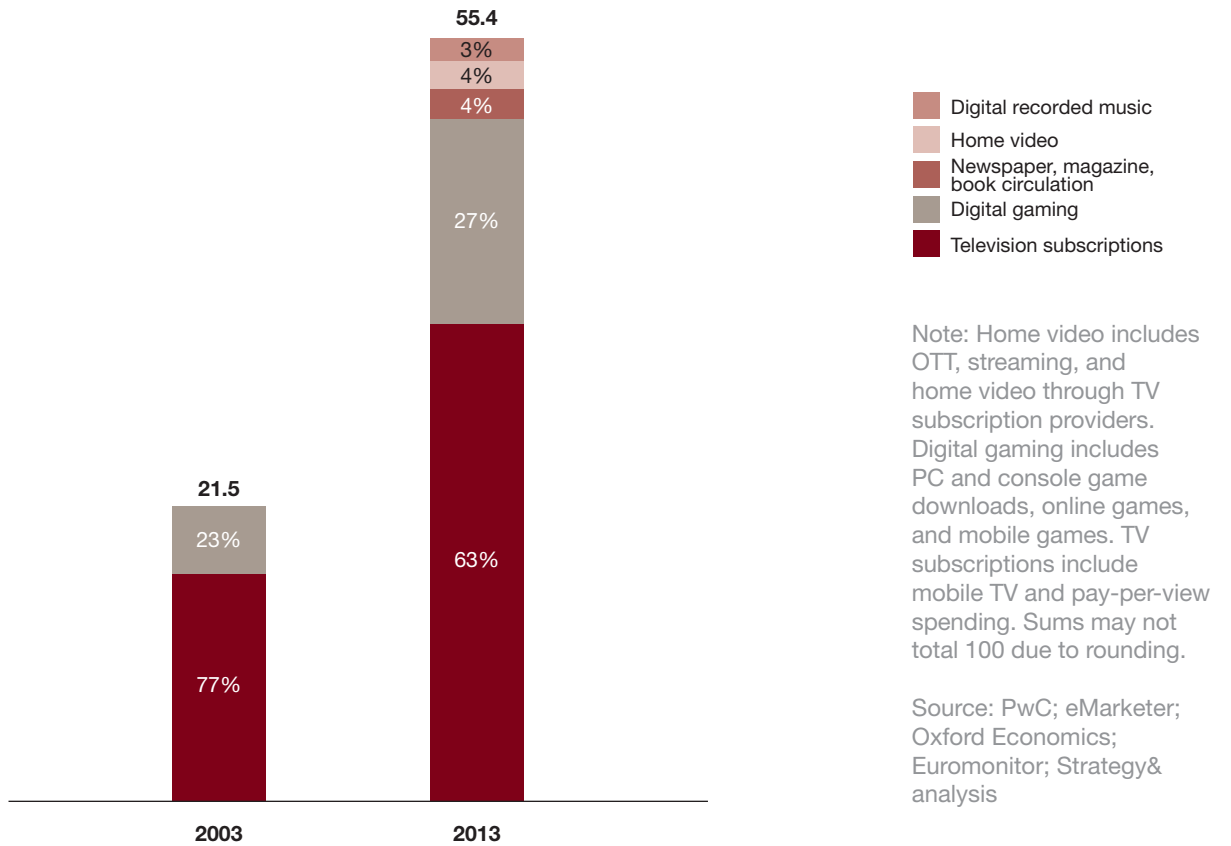
Even so, established print models such as newspaper distribution and traditional TV advertising still provided about 70 percent of the creative

Exhibit 16

Digital revenues have increased by varying amounts, depending on the creative sector

Digital pay revenue by sector

EU-27, 2003 and 2013, in € billions and percentage of total



industries' revenues in 2013, but that was down from 75 percent in 2011. The industry cannot rely on these established models, as they are unlikely to provide a stable revenue source going forward. New business models and technologies can accelerate surprisingly quickly after reaching an inflection point — as the steep decline of the U.S. newspaper market has shown.³⁰

Another broad trend is the growth of pay revenues. The creative industries have always relied on two distinct value pools: revenue from advertisers, and payments from end-users in the form of subscriptions, product purchases, and admissions. Customer payments still account for 78 percent of the industry's overall revenues. Over the past 10 years, advertising revenues have been stable at best, whereas pay revenues have grown by more than 2 percent annually. At 4 percent, growth has been especially strong in the TV sector, where new and better digital TV services have lured many consumers to premium pay models (as in IPTV). Despite the perception that consumers are interested in free media only, and the price erosion induced by the Internet, the facts are clear: Consumers spent more money on creative products in 2013 than ever before. This trend may well accelerate as they become interested in new offerings with new value propositions.

A third trend is the change in advertising that has come about through digitization. In contrast to offline advertising, which has seen flat or limited growth since 2003, online advertising has grown at an average of more than 30 percent annually over the past 10 years. Newspaper and magazine publishers have been hit hard by this transition. Between 2003 and 2013, their overall revenues decreased by 17 percent across Europe, to €53.7 billion (*see Exhibit 17, next page*). The reasons for this development are as varied as demographic changes, an abundance of news content on the Internet, and usage shifts already at work for the past several decades. And although display advertising on print-related Internet sites today represents a sizable category, bringing in almost €1.8 billion in 2013, this form of advertising will not make up for the drop in overall revenue in the short term.

As consumers spend more leisure time on the Internet, their media consumption patterns will fragment across an ever-wider range of products and services: professional media content, user-generated content, search, social networks, classified ads, and e-commerce. As advertising money follows the eyeballs, it will fragment even further across an abundance of providers. Therefore, even as the overall pool of advertising revenue increases, individual sites and venues will not be able to count on the same levels of revenue they enjoyed in the past.

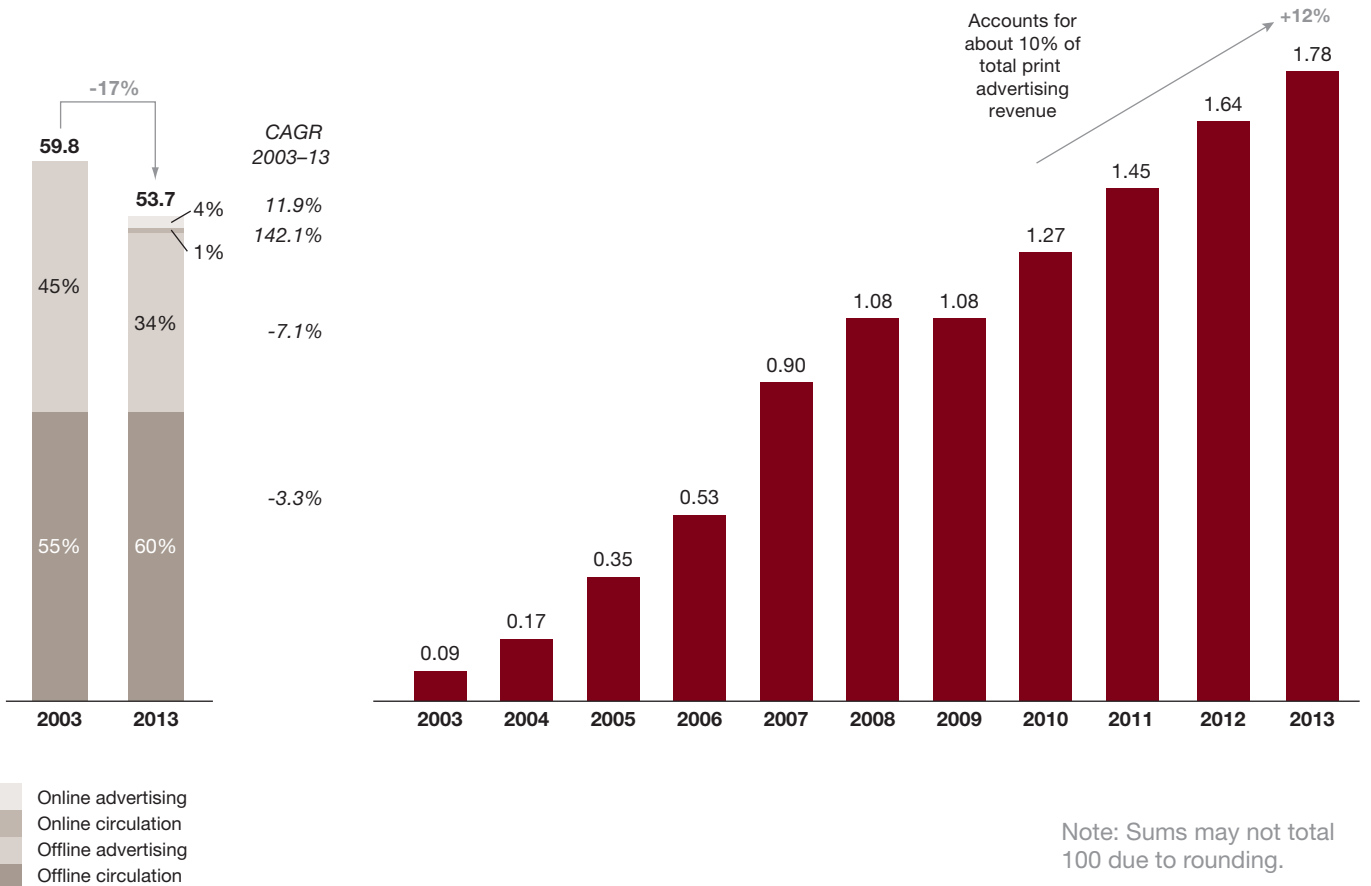
At the same time, online advertising does not always require traditional creative content or production values. For example, a successful

Exhibit 17

Print publishing revenues have decreased 17 percent over the past 10 years, despite promising growth in online advertising

Print publishing revenues
EU-27, 2003 and 2013, in € billions

Print publishing online advertising revenues
EU-27, 2003–2013, in € billions



Note: Sums may not total 100 due to rounding.

Source: PwC; eMarketer; Oxford Economics; Euromonitor; Strategy& analysis

Facebook ad can be relatively simple. As a result, supply and demand are out of balance in online advertising, and the costs of producing online ads become by definition harder to recoup. The increased competition for online ad revenues has led to a strong segmentation of inventory, especially for display advertising.

Certain online properties — the front pages of online news outlets such as Spiegel.de and Lefigaro.fr, for example — can generate significant reach with premium target groups and can charge premium prices for their inventory. The lower, larger tiers of inventory are of lower value and traded as a commodity in real time through automated auctions or algorithms. A large part of professionally produced and curated content is squeezed in between these two poles, where it does not enable the same level of monetization these publishers were accustomed to in the offline world.

A key question going forward isn't just whether publishers can more effectively monetize their print content in the digital domain, but whether they can continuously create attractive, relevant consumer experiences. Print publishers have great assets, given their established brands and existing content capabilities, but those assets need to be consistently complemented by a larger variety of content types, such as video. Moving beyond publishers' core of static content, typically geared toward the general audience or readership, digital — combined with audience insight and analytics — also offers opportunities to dynamically mash up and reassemble content to create truly personalized experiences. Such efforts might include auto-curated information and entertainment services driven by algorithms that tie related content to a particular customer's interests, reading history, recommendations, and other contextual information, and topical research and content digest services in a B2B information services model.

This does not have to be limited to proprietary content; rather, it could extend to third parties, such as other content providers and commerce partners. Partners could tie complementary goods and services into the experience, which would open potential new value streams by monetizing not only original content but also audience access and insight. The value of ad inventory for marketers in such an environment will also increase, particularly when supported by a detailed and data-backed understanding of the audience.

Despite a host of such opportunities, digital will continue to have a disruptive effect on many traditional print formats and business models, which will continue to struggle with the transition to digital, and in some cases will fail. On the other hand, the news and entertainment landscape is producing a range of creative new formats driven by

Supply and demand are out of balance in online advertising.

players that are born digital. The Huffington Post and BuzzFeed are prominent examples, and both have formats tailored for European audiences, providing cases in point for “creative destruction” across the print sector.

In contrast to the publishing industry, online video and music portals such as Netflix, YouTube, Vimeo, Vevo, and Spotify have shown tremendous growth in the past several years. YouTube alone streams more than 4 billion videos a day, and its partner revenue grew 50 percent between 2013 and 2014, according to statistics on the company’s site. Even though these new media outlets are very diverse in their types of content and business models — they range from professional to user-generated content, and from purely advertising-funded to freemium and paid business models — they have all attained enormous reach by providing a new or more convenient user experience. All of them recoup at least part of their cost by selling advertising. For many professional content producers, these venues provide either an additional and very easy-to-use distribution channel or an attractive marketing platform, promoting products to be monetized elsewhere. Both YouTube and Vimeo, for example, are often used to promote trailers for box-office movies.

In some instances, the revenue from these platforms is already sizable. If the service is of value to consumers, they will continue to shift their time to these sites — and the advertising money will ultimately follow. Like other new media before them, Dailymotion, YouTube, and others will never replace existing TV and broadcasters. Rather, they will complement the media landscape and increase consumer choice, providing new forms of reach, monetization, and customer data collection.

The challenge for specific sectors of the creative industries is clear, and it will not go away. Due to competition and increased expectations from both users and advertisers, online advertising as a consistent revenue source will remain an uphill pursuit. Monetizing existing content better with more online advertising will not alone solve this challenge for established players that began life in the offline world. Instead, new types of content and new ad inventory will need to be developed. New ad formats will need to be explored, as will new ways of generating leads. New assets and brands will rise up — the expansion by Springer and Schibsted into the easily scaled business model of international online classifieds is a prominent example. Other alternatives include the move into new businesses such as e-commerce and data analytics.

Still, this will represent only a part of the monetization solution. Digital activities can be tracked and the resulting data gathered, either very prudently or — with the consent of the user — more thoroughly. Most online platforms, including YouTube, Spotify, and Xing, provide

New types of content and new ad inventory will need to be developed.

extensive dashboards through which the content owners can monitor and analyze consumer behavior. This data can represent a rich source of information. For online video, for example, the number of views can be tracked along with the time spent with the stream, the comments posted, and the search terms that led to the video link in the first place. Mining and analyzing this data can lift the value of advertising significantly. The TV CPM (cost per thousand impressions) of an anonymous broadcast ad versus that of an actionable ad delivered to a specified target group can vary by a factor of 20, and more targeted ads can reap as much as €50 CPM.

Finally, there are pay revenues, which, as we have already noted, have been the most powerful growth driver for the creative sector over the past 10 years. These revenues all come directly from end consumers in the form of subscriptions, one-time purchases, admissions, or transactional commissions (from selling merchandise). Across Europe, TV subscriptions are the single most important category within this type of revenue. Attracted by better-quality products — high-definition (HD) channels, premium content, and improved services like video-on-demand and user-friendly programming guides — many consumers have switched their model of TV provisioning from a full free-to-air model of terrestrial or satellite supply to a paid model on a terrestrial, satellite, cable, or IPTV platform.

The demand for streamed TV content has led to a mushrooming of new service providers now also available in Europe, including Netflix, Maxdome, Amazon Prime, Watchever, and Sky Snap. In the U.S., online distributors, particularly Netflix, are often said to have changed consumer viewing habits. In response to this trend, U.S. cable networks, including HBO, are now shifting content online. It is still too early to say whether a similar trend will unfold in Europe. Yet the effects of streamed TV content are already apparent in the U.K. and Ireland, where Netflix, introduced in 2012, has become the second largest source of traffic during the peak evening hours, accounting for more than 17 percent of downstream fixed-access traffic.³¹ (See “Netflix and the race for original content,” next page.)

This growth in pay revenue has benefited not only the infrastructure providers but also the creative industries. Players such as Canal+ in France are investing in original content with a European focus. And channels like RTL in Germany are using the HD+ platform — a satellite-based subscription service for high-definition channels — to build sustainable customer relationships.

The changes driven by Internet distribution probably have the greatest disruptive potential in the audiovisual production sector. Online platforms such as YouTube offer the potential to reach large

Netflix and the race for original content

Since its launch in 1997, Netflix has created two markets: online DVD rental and video streaming. The company started its operations in the U.S. as a DVD-by-mail service. Then, in 2007, it launched its streaming service and since then has also moved into original content. Today, Netflix is the leading Internet television network, present in almost 50 countries and with more than 50 million members. It went international with its streaming service in 2010, expanding first into Canada, followed by Latin America in 2011; the U.K., Ireland, and Scandinavia in 2012; and other European countries in 2014. The company's growth has been phenomenal; in 2014 its annual revenues reached US\$5.5 billion, up from just \$150 million in 2002, with profits of \$267 million.³² Netflix operates three segments: domestic streaming, domestic DVD, and international streaming. Revenues from streaming are derived from monthly membership fees. Customers are asked to pay a monthly flat fee for streaming services, which allows them access to unlimited content, anytime and anywhere, provided a suitable Internet connection is in place.

In the U.S., Netflix has experienced huge success, monopolizing the market for subscription video-on-demand. A recent survey showed that in 2014, Netflix household penetration rates in terms of subscriptions stood at 30 percent, a share at least twice as high as its main U.S. competitors, Amazon Prime and Hulu Plus.

What has set Netflix apart from competitors in the past has been its breadth and depth of content and its ability to create a personalized user experience. It entered the streaming market when licenses were still cheap and no other significant players were

around. Netflix was therefore able to curate an extensive catalog with relatively low investments. Making sure that content finds its audience (and vice versa) and is monetized, Netflix closely analyzes user demographics, viewing behavior, and programming preferences. Its insights are used to create personalized content recommendations — algorithmic programming, if you will — not just to drive the bulk of content views but also to prioritize investments in content and, more recently, the creation of original content, and to tailor the promotion of new shows to various audience segments.

That's ironic, given that as recently as 2011, Netflix CEO Reed Hastings said, "We're better off letting other people take creative risks."³³ Since then, the company has landed some major successes with shows such as *Lilyhammer*, *House of Cards*, and *Orange Is the New Black*, and more recent additions such as the period drama *Marco Polo*. These shows were not only born out of creativity but driven in equal measure by sober audience analytics. *House of Cards*, for example, was promoted to some members of Netflix's audience with a focus on politics and crime, and to others as a relationship drama, depending on demographics, behaviors, preferences, and viewing history — all supported by data.

Netflix's success has triggered two effects, however, both of which are challenging its strategic advantage and could impact its business in the long run. First, as content producers took note of the growing popularity of streamed content, prices for content rose. Second, competitors were attracted to the market by Netflix's success. The result has been more competition and higher prices for

Continued

content.³⁴ This has meant mounting expenditures for the streaming giant, and recently Netflix has been unwilling to renew a significant number of licensing deals as they expired. Still, the company set out to invest some \$3 billion on TV and film content in 2014 and more than \$6 billion in the next three years.³⁵

The endgame of this development remains unclear. As the race for differentiated content grows more intense, the question is when the market will reach a point of saturation where audiences become overly fragmented,

given the abundance of programming options. This, of course, would negatively impact the ability of content providers to monetize and recoup their investments through subscriptions, advertising, or some other digital mechanism, such as digital commerce in content-related categories. Where the equilibrium in terms of business economics and competitive landscape on the provider side will be reached remains to be seen, but one thing is clear: Audiences will benefit immensely from improved content quality and greater choice.

audiences, and — lacking traditional intermediaries — to benefit directly from additional revenue streams, like advertising, while exploring new content formats. The German production company UFA, for example, is testing innovative ideas via its UFA Lab. (See “*The future of online video,*” next page.) For production companies, this represents a true paradigm shift, since they can produce content without the need of traditional distributors, interact directly with their audience, and experiment to a much larger degree, thanks to their lower costs, which have been reduced further through the use of fully digitized production processes.

How the new dynamics of the creative industries are leading to growth can be seen clearly in three sectors — gaming, music, and book publishing — as well as in emerging applications of digitization in museums and 3D printing.

Gaming

The computer gaming sector is a natural candidate for successful digital download or online business models, because its products have been digital from the very beginning. The software-only gaming sector (not including consoles) has grown considerably, from €4.9 billion in 2003 to €14.8 billion in 2013. The economic crisis slowed its growth somewhat, as revenues in 2011 still trailed the peak level of 2008. But online gaming’s share of the overall gaming market, which includes all video games, has risen steadily since 2003: With revenues of €4.0 billion in 2013, it now makes up 27 percent of the total (see *Exhibit 18, page 51*).

The future of online video

An emerging but rapidly growing field of audiovisual entertainment is online video — especially original online content, produced specifically for online portals such as YouTube and Dailymotion. Many industry professionals see online video as the next step in the creative industry’s evolution. From a few broadcast TV channels 40 years ago, several hundred channels are available today via digital cable, while online video offers the possibility of several thousand channels in a few years — although *channel* may no longer be the right term.

Until recently, content owners and producers have faced multiple hurdles in the effort to move original video content online. The issue of cannibalization is often cited as a primary reason; the loss of offline viewers in order to gain online viewers does not add up, given the current monetization economics of the Internet. However, multiple expert interviews suggest that online video does not lead to a loss of offline users. In fact, it’s quite the opposite: Online video supports offline TV episodes by attracting new demographics and by offering opportunities to catch up with missed episodes, thus complementing offline services.

The potential to monetize online video is growing, particularly because it offers new opportunities to target specific audiences. According to a recent study by the Interactive Advertising Bureau, brand marketers and advertising executives believe that within the next three to five years, original content video will be just as important to their business as television content.³⁶

One rapidly growing subsector of online video is multichannel networks,

or MCNs. Often using YouTube as an audience aggregation and content distribution platform, a growing number of MCN-type players are developing, curating, managing, and monetizing original online video content in micro-segmented “channels.” This business model is gathering steam, underscored by rapidly growing viewership as well as frantic M&A activity in both the U.S. and Europe, as more established media players buy into this emerging space.³⁷

One example of the successful monetization of online video is U.K.-based All3media, which has succeeded in gaining a strong audience following, with strong content — both scripted and reality formats — that works well on online platforms. Thanks to its early success, the company was bought by Discovery Communications and Liberty Global in September 2014. Another is Yam112003, an Italy-based developer of online video and related services for promoting and monetizing brands across platforms, through social media, Web magazines, and the like. It manages 140 YouTube channels, with 3 million subscribers and more than 1 billion video views in 2014.³⁸ And UFA Lab, based in Germany, develops innovative online content, including two original content channels on YouTube as well as transmedia formats such as Dina Foxx, which combines crime fiction with gaming and documentary content.

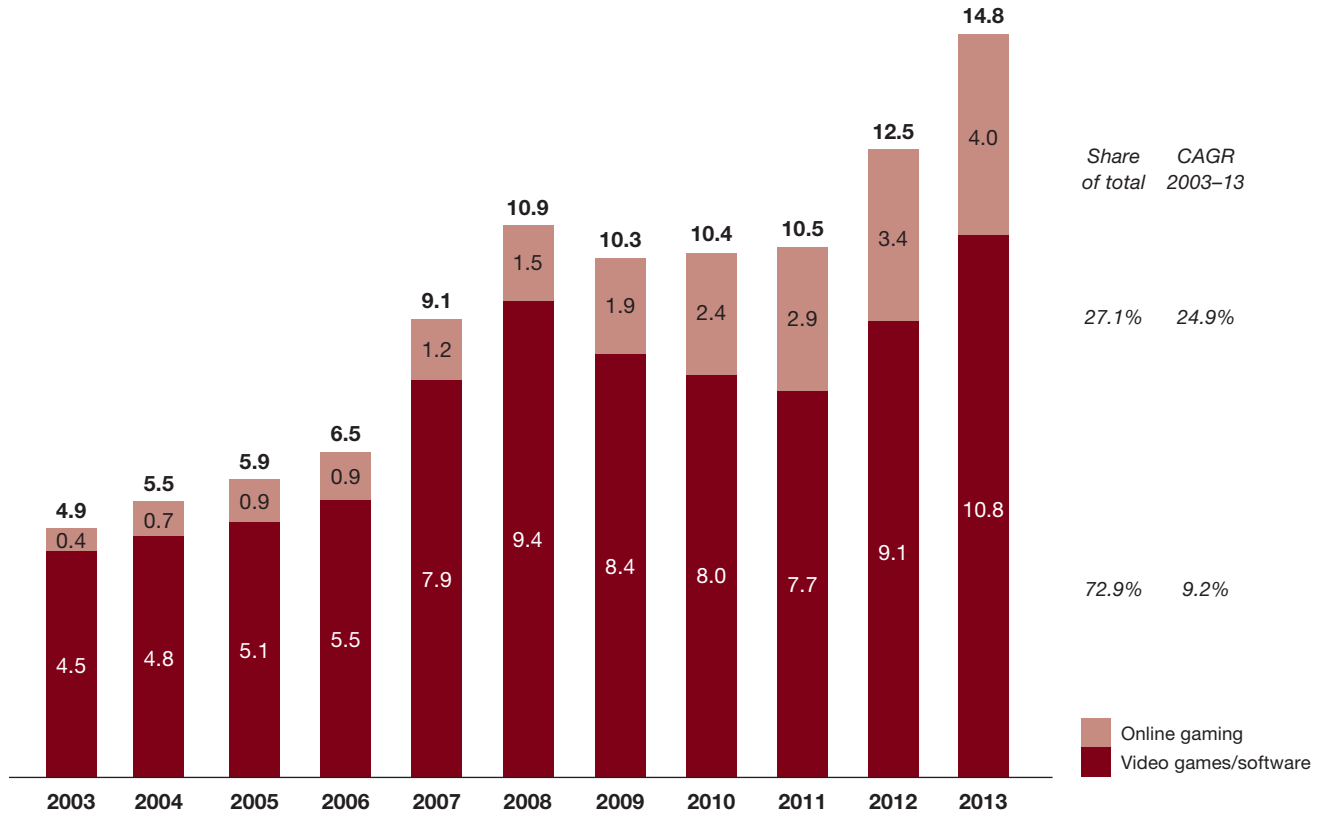
Online video offers multiple advantages for content owners in reaching new demographics, targeting specific niche audiences, building an in-depth understanding of and relationship with audiences, and monetizing this understanding through relevant advertising.

Exhibit 18

Online gaming revenues already make up 27 percent of the overall gaming industry

Gaming industry revenue development

EU-27, 2003–2013, in € billions



Note: Numbers may not add up due to rounding.

Source: PwC; Euromonitor; Strategy& analysis

There are several reasons for the success of online models in gaming:

- The growing reach of broadband has encouraged game makers to fully embrace online, browser-based games.
- New platforms and networks have been fully accepted by Facebook, the iTunes app store, Zynga, and others.
- In addition to paid games, freemium models have been introduced, in which the basic app is provided free but additional features or levels need to be paid for. Examples include Fruit Ninja and Pocket Frogs.
- Game makers have successfully targeted new audiences, with games and applications such as brainteasers designed for very small kids and for the older generation.
- The rapid adoption of new devices such as tablets has made shorter games like Angry Birds particularly popular online.

Game makers' flexibility and openness to new models suggest that the sector is well prepared for the next wave of changes in consumption patterns. (See "*Zed: Mobile content solutions*," next page.)

The music business

We have already covered the shifting fortunes of the music industry — first a decline and then a leveling off of revenues, with a broadening of the base of creators and a disintermediation of the supply chain, particularly in packaging and distribution. Thus, during the 10 years from 2003 to 2013, the overall revenues of the recording industry in Europe experienced a decline of about 44 percent, from €9.4 billion to €5.3 billion, while artist revenues remained constant or even increased, as the costs of physical distribution of music dropped precipitously.

One often-cited reason for the revenue decline is the amount of piracy that still affects the industry. In many of our interviews with industry experts, music piracy was described as a culturally accepted phenomenon in some countries, not a crime, and this view is also reflected in studies like the Brennerstudie.⁴¹ But there is also credible research questioning how strong a negative effect piracy has on industry revenues, in both music and other content industries.⁴² Our research clearly indicates that consumers are willing to pay if the right business models are put in place — even in the most piracy-prone countries.

Zed: Mobile content solutions

Founded in Spain in 1996 as a content provider under the name of LaNetro, Madrid-based Zed has provided interactive entertainment products via the Internet from the very beginning. After the company's first success with ringtones for mobile phones, strong organic and inorganic growth in the 2000s allowed Zed to address a variety of digital content growth areas. It now offers value-added services for mobile phones for B2B as well as B2C clients. Partnering with 170-plus mobile and multimedia providers in over 70 countries, the company reaches more than 500 million active users.³⁹

In the B2B arena, Zed provides both its own and white-label end-to-end solutions to develop, distribute, and sell mobile content, including music, videos, games, apps, and news, for mobile phone providers. This allows customers to increase sales by addressing their audience with targeted mobile marketing solutions through multiple channels and on most existing platforms, including iOS, Android, Java, BlackBerry and Windows. Among its most visible deals: a 2008 partnership with the

National Basketball Association in North America to improve the league's mobile phone offerings.

In the consumer market, Zed has developed a platform through which content producers can market their own content on mobile phones. The company increased its content catalog through its 2007 acquisition of U.K.-based Monstermob, which sells mobile content such as ringtones, wallpapers, music, and games. Zed also offers a very successful multiplayer online game allowing users to explore a virtual world based on the animated movie *Planet 51*.

With 50 percent of Zed's staff dedicated to R&D and innovation, the company has strong internal competencies. And as Europe's leading multimedia content producer, Zed is contributing to the European project Nubomedia, funded under the Seventh Framework Programme, which aims to investigate how technologies such as computer vision, augmented reality, 3D video, and multisensory data can be used to create new communication paradigms beyond phone calls and videoconferencing.⁴⁰

Another important reason for the decline of music industry revenues has been shifting user expectations that the industry simply did not cater to in the early days of digitization. Compared with physical CDs, digital music brought new freedom to share music, create playlists, and listen to music on the go — adding up to a completely new user experience.

Since 2011, and for the first time in a decade, the revenues of the music industry across the EU-27 have been rising again. Revenues will not be comparable to those of 2001, and there will be a very different cost structure and distribution system — different enough that comparisons between 2001 and 2011 and onward will be neither fully accurate nor revealing. Growth has returned to music, but all growth is in digital media, driven by downloads of songs and albums and new subscription models. Digital revenues now make up about 26 percent of the recording industry's revenues, and the share is rising. After years of experimenting without a real breakthrough, the digital turnaround seems to have finally arrived.

The music industry is currently going through a transformation toward a global digital business. Key to this transformation is the high level of consumer engagement in digital music services as record companies license a diverse set of services. This has meant a consumer shift from pirated to licensed music environments that pay artists and rights holders. The success of Spotify, Deezer, and Qobuz shows that music as a service can be an attractive model, for both the recording industry and the streaming provider.

The market entry of Google with Google Play Music, Apple with iTunes Radio, and Amazon with Amazon Prime further underlines the significance of music services in digital form. For the industry, this model provides an additional value pool to generate revenues and opens up a legal distribution channel to consumers who are currently not music buyers — 60 percent or more of total consumers in markets such as Germany, for example.⁴³ Furthermore, though downloads still provide the majority of revenues, streaming and subscription revenues are growing fast. The concept of having access to a large library of music instead of owning individual pieces is attracting more and more consumers.

Book publishing

The book business is expected to be the next industry to be fully revolutionized by digitization. The Internet has opened up a market with instant access and global reach, 24 hours a day, seven days a week. E-books allow readers to travel light while still having access to their

entire library on the go. They require little storage space, provide the possibility of interactive multimedia tie-ins, and allow for font adjustment and backlighting. Nigel Newton, founder and chief executive of publisher Bloomsbury, believes that e-books are fueling a “golden age of reading” in the United Kingdom.⁴⁴ So far, the impact of e-books on the rest of Europe has been moderate, but that is expected to change.

The book market as a whole saw moderate growth of 0.5 percent between 2003 and 2013. Year-on-year revenues for physical books also rose at a moderate rate until 2008, when, coinciding with the introduction of e-books, that growth turned negative. Since their introduction, e-books have shown strong growth across all focus countries. E-books’ share of book revenues in Germany, initially forecast at 4 percent for 2012, actually reached 5 percent, and grew further, to 7 percent, in 2013. It is expected that by 2017, e-books’ market share in Germany will reach 17 percent.⁴⁵ Though e-books have demonstrated strong growth across all focus countries, their 2013 market share throughout the EU-27 countries remains small, at 5 percent, but that is up from just 2 percent in 2011 (*see Exhibit 19, next page*). Yet there are notable differences among countries: In the U.K., e-books have already reached a double-digit share of the total. Nevertheless, several factors will likely affect the speed at which e-books change the book publishing industry.

The differences in how physical and e-books are taxed distorts the situation. E-books are subject to normal VAT, whereas physical books are subject to reduced VAT, and the difference varies among member states (*see Exhibit 20, page 57*). With the higher tax on e-books, there is no clear incentive for publishers to enter the market, as the costs of printing are shifted to higher tax rates. To avoid losing out in the nascent e-book market, member states are increasingly in favor of equal tax treatment for physical and digital publications. Reducing VAT rates applicable to e-books would provide additional momentum to the e-book market while increasing margins for publishers.⁴⁶

Other challenges such as content piracy pose a significant threat to the e-book market. A growing number of unauthorized platforms — Germany’s Torbox, for example — have emerged that allow readers to download bestsellers at noncompetitive prices.⁴⁷

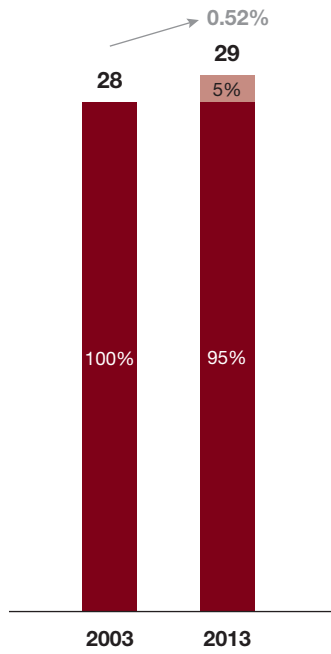
With the mass penetration of e-book readers, tablet computers, and smartphones, the catalyst for change is here. One of the key drivers in e-books’ growing market share has been the introduction of mobile devices — particularly tablet computers, which offer more functions than dedicated e-readers and should lead to a significant expansion in the potential audience for e-books. Declining prices of mobile devices will serve as a further driver of growth for e-books.

Since their introduction, e-books have shown strong growth across all focus countries.

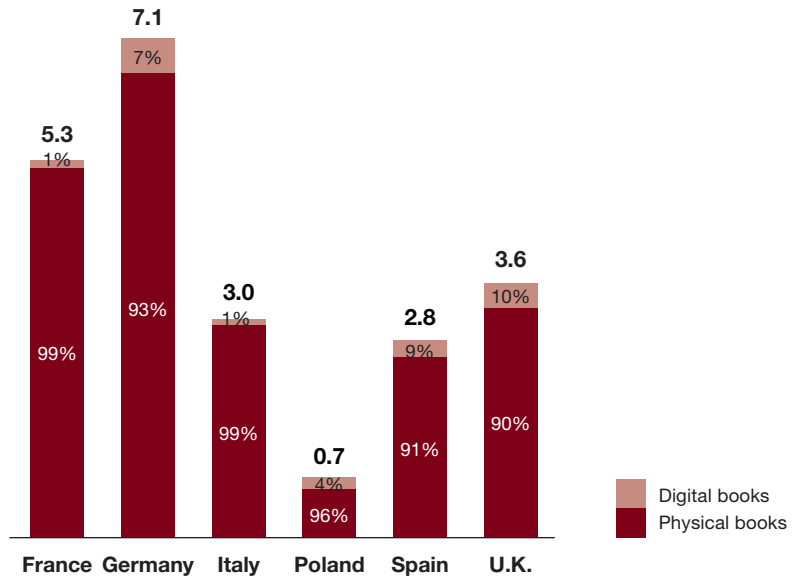
Exhibit 19

E-book revenues have grown strongly over the past 10 years, yet still make up a small share of total book revenues

Book revenues, physical and digital
EU-27, 2003 and 2013, in € billions



Book revenues, physical and digital
Focus countries, 2013, in € billions



Source: PwC; eMarketer;
Oxford Economics;
Euromonitor; Strategy&
analysis

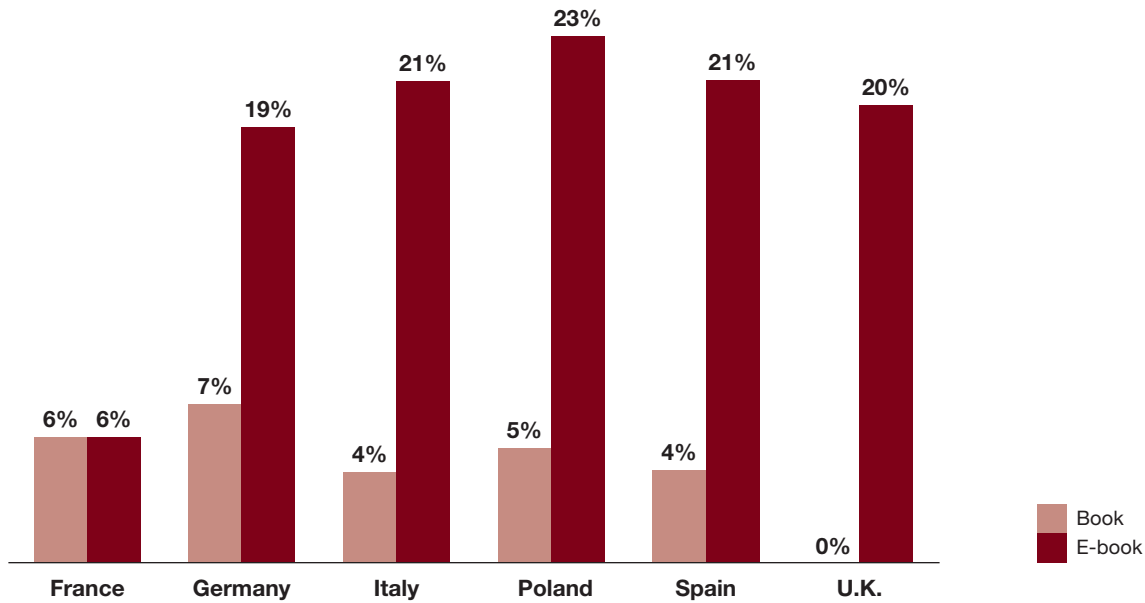
Exhibit 20

VAT rates are different for e-books and physical books and from country to country

VAT for physical and digital books, 2014

Highest VAT for e-books: Hungary 27%

Lowest VAT for e-books: Luxembourg 3%



Source: European Commission

Availability and discoverability will be key to further growth in the European market for e-books. Not every book is available digitally, publishers don't offer e-books in every format, and many formats and devices are incompatible. This is restricting the availability of e-books to some degree. Language is also a limiting factor in Europe. Although the number of digital formats in markets such as Germany, France, and the Netherlands is increasing,⁴⁸ currently e-book retailers offer just over 1 million books in more than one language. In the United Kingdom, however, close to 2 million e-book titles are already available.

Another important driver of demand for e-books is their degree of discoverability on different vendor portals, which still varies greatly. As websites in general are becoming more streamlined and user-friendly, customers have less patience for investing time in searching for the

books they want. The user experience is thus key in capturing customers and driving sales.

With the growing popularity of e-books in Europe, a number of important trends are emerging, which, if properly acted on, could have a positive impact on the publishing market and the creative industries as a whole.

Physical bestsellers are not necessarily the same as e-book bestsellers. Consumers will still buy printed books, but those will increasingly be artifacts with a high degree of offline value — high-quality photography books, for example. Already, there is a pronounced difference between the best-selling general interest titles in physical books and e-books (*see Exhibit 21, next page*). Whereas the top titles in e-books continue to be novels, there is a clear tendency in physical books toward nonfiction titles (including cookbooks), books with high graphic appeal (such as graphic novels), and books that are suitable as gifts. If managed well, this differentiation can benefit the entire industry. The quality of writing and editing will not diminish in value with e-books; indeed, it may rise as people find it easier to test a book by downloading one chapter free, and buying the rest of it only when they are drawn in.

The development of a bilingual segment in the reading market is challenging the constraint that has always fragmented the European reading market and limited the market's size. With 24 official spoken languages in the E.U. and many more regional languages, there have been limits on local as well as global players. An increasing number of online shops, however, are adding dedicated English catalogs to their offerings. Though this trend can benefit both the physical and the digital book markets, the e-book market is at a particular advantage, since e-books can travel at low cost over long distances with no need for inventory.

A further major trend in the e-book market has been the rise of self-published books, through which authors can provide content in return for royalties, thus bypassing traditional promotion and distribution costs. According to “Global e-Book Market 2014–2018” by TechNavio, self-published books accounted for 20 percent of e-book sales in the U.K. in 2013. The report also projects that the e-book market will continue to see an increase in self-published books, as they usually sell for less than mainstream titles. The importance of self-publishing will likely grow further through platforms such as Amazon's Kindle Direct Publishing.⁴⁸

The growing digitization of classrooms has also brought e-books into the learning environment. Classrooms have changed considerably over the past decade. Overhead projectors and chalkboards are gradually being replaced with virtual whiteboards; laptops and iPads are taking

Exhibit 21

The e-book bestseller list looks very different from that of print books

Best-selling e-books vs. print books on Amazon.co.uk

November 2014

Platform	Rank	Title and author	Genre
All books	1	<i>The Fault in Our Stars</i> , by John Green	Fiction
	2	<i>Awful Auntie</i> , by David Walliams	Comedy
	3	<i>The Chimp Paradox: The Mind Management Programme to Help You Achieve Success, Confidence and Happiness</i> , by Prof. Steve Peters	Health and lifestyle
	4	<i>Mary Berry Cooks</i> , by Mary Berry	Cooking
	5	<i>Gone Girl</i> , by Gillian Flynn	Thriller
	6	<i>Diary of a Wimpy Kid</i> , by Jeff Kinney	Comic
	7	<i>Minecraft: The Official Annual 2014 (Annals 2014)</i> , by Jane Riordan	Computers, software, and games
	8	<i>The Fast Diet: Lose Weight, Stay Healthy, Live Longer with the Simple Secret of Intermittent Fasting</i> , by Dr. Michael Mosley	Health and lifestyle
	9	<i>The Shock of the Fall</i> , by Nathan Filer	Fiction
	10	<i>Mindfulness: A Practical Guide to Finding Peace in a Frantic World</i> , by Prof. Mark Williams and Dr. Danny Penman	Health and lifestyle
Kindle e-books	1	<i>The Letter</i> , by Kathryn Hughes	Fiction
	2	<i>Captivated by You: A Crossfire Novel</i> , by Sylvia Day	Fiction
	3	<i>The Photographer's Wife</i> , by Nick Alexander	Fiction
	4	<i>Prophecy</i> , by S.J. Parris	Thriller
	5	<i>Look Behind You</i> , by Sibel Hodge	Thriller
	6	<i>Gone Girl</i> , by Gillian Flynn	Thriller
	7	<i>The Story of Us</i> , by Dani Atkins	Fiction
	8	<i>Heresy</i> , by S.J. Parris	Thriller
	9	<i>Thicker Than Water</i> , by Kerry Wilkinson	Thriller
	10	<i>David Mitchell: Back Story</i> , by David Mitchell	Comedy

Source: Amazon.co.uk

the place of notepads; curriculum content can often be accessed online, and tests can be taken and submitted online as well. In 2013, academic e-books constituted 2 percent of total book publishing sales, up from just 0.1 percent in 2007. To what extent, and how quickly, e-books will replace textbooks is difficult to determine; nevertheless, their characteristics have contributed to their growing popularity in the learning environment. E-books allow students as well as teachers to travel light with access to vast amounts of content — particularly important for younger students who may otherwise be burdened by the weight of heavy textbooks. Other features include the ability to highlight text, access word definitions, and view animations and other multimedia elements to support reader understanding and engagement. Furthermore, e-books can help students with dyslexia or visual impairments by adjusting backlighting and font size.

The primary sales model for e-books remains retail sales, with new service models on the rise. Traditional models allow customers to download their e-book purchases on their device's hard drive or store them in a dedicated virtual library. However, as the market for e-books gains traction across Europe, new business models are emerging. The concept of subscription services for e-books started to pick up popularity in 2013, inspired by the tremendous success of Netflix and Spotify in the film and music business. A key question is whether e-books can replicate that success. A plethora of access models have emerged since, ranging from subscription lending to streaming.

- Scribd started out in 2007 as a service provider for uploading documents. Today it offers more than 500,000 books from over 900 publishers to 80 million readers worldwide, for a flat monthly fee.
- In Germany, Skoobe, a joint venture between Bertelsmann and Holtzbrinck, the country's two largest publishing houses, was launched in 2012. It offers customers a lending and subscription platform based on a tiered subscription rate between €9.99 and €19.99 per month.
- 24symbols, which is combining content with the network capacity and customer base of the telecommunications companies, offers 100,000 titles in English, French, Spanish, and Italian. It gives customers either unlimited access at a flat monthly rate without advertisement interruptions, or free but restricted access.
- After raising €500,000 in crowdfunding, Readfy was launched in Germany in early 2014. The platform now offers 25,000 titles via a streaming service, which enables access to content through an Internet connection. Like Spotify, Readfy offers a three-tiered subscription plan ranging from freemium accounts with restricted

access to content and advertisement interruptions to premium accounts at a flat monthly rate, enabling unlimited access to the full catalog.

- The global giant Amazon includes an e-book lending service with its online subscription service, Amazon Prime. The platform offers customers a bundle of services such as streaming access to TV shows and music, reduced shipping time, and unlimited cloud storage of photos.

The breadth, depth, and duration of service vary considerably among the currently available subscription models — free or pay, monthly or yearly, advertising infused or advertising free, downloaded or streamed. Despite their differences, however, all these business models have one aim in common: to establish a new platform that allows companies to tailor the breadth and depth of their offerings to the specific needs of the customer. The digital revolution in the book publishing market has thus far mainly been in commerce platforms (such as Amazon) and not in the product itself. By extending the product and creating a customized online experience, these new e-book platforms are providing a service that will be difficult for traditional commercial platforms to beat. (See “*Hachette’s digital strategy*,” next page.)

Digitizing the museum experience

As the world becomes increasingly digitized and interconnected, enabling more and more customized user experiences, museums are faced with the challenge of accommodating these trends. They must rethink the ways they traditionally manage, preserve, curate, display, and market their content. Technology has already been a driver and enabler in this respect, presenting museums with the potential to make content more accessible and to engage with their audience — and ultimately allowing them to shift from a content portal to a content platform.

Although the technology is available, the design and distribution of digital museum content has yet to reach the significant level of maturity already reached by sectors such as gaming and film and television. Moreover, a reliable baseline of statistical data on the digitization of cultural content for Europe has only recently been developed. Enumerate, a consortium of 10 partners founded in 2011 and funded by the European Commission (EC), is creating such a baseline. Only since the publication of its first report in 2012 have museum stakeholders had access to a consistent evidence base to make strategic decisions in digitization. In fact, only 35 percent of the museums in Europe have any digitization strategy.⁵⁰

Hachette's digital strategy

Hachette Livre SA is one of the four pillars of the media activities of Lagardère, one of the world's leading media companies, with net sales of more than €7.2 billion in 2013. Whereas Lagardère Active SAS, a second media pillar, comprises all activities involving digital media, Hachette Livre focuses on the worldwide publishing of education texts, fiction, and other print content, such as dictionaries. Like other publishers with a strong focus on print, Hachette Livre is facing many challenges due to digitization in general and the unauthorized reproduction of e-books. Nonetheless, sales of e-books continue to grow at a strong rate in France, while the overall book market is decreasing slightly. To participate in this growing market, Hachette Livre has developed a multifaceted digital strategy:

- Digitization of all new content and selected past works, making them compatible with all digital platforms and devices
- Creation of new digital platforms on which to sell e-books
- Improved digital services and online activities on social networks to strengthen ties with authors

- An aggressive legal stance against piracy, in combination with investment in technology platforms for digital rights management
- Selling dynamic and selective logistics services that allow others to profitably operate their own distribution

In 2013, Hachette generated more than €2 billion in revenue, of which nearly 80 percent was generated in France, the U.K., and the United States. E-book revenues make up 10 percent of Hachette's total revenues, up from 0.1 percent just five years ago.⁴⁹ In France, Hachette currently offers 23,000 titles via bookshops, e-stores, Fnac, Apple, Google, and Amazon; in the U.K., it offers 20,000 titles via platforms such as Amazon, the iBooks Store, Google Play, and Kobo. The company has also developed apps based on its digitized books, including dictionaries, encyclopedias, language learning and reading software for beginning readers, and a health guide for parents.

Though museums have experimented with and incorporated digital technology for years now, they continue to struggle to bring it up to scale. Challenges remain in a number of areas, including lack of technological expertise, rapid changes in technology, insufficient financial resources, inability to keep up with customer expectations, inflexible mind-sets, no clear digital road map, controversies over copyright, and how to safeguard content from unauthorized reproduction and distribution, to name just a few. Whereas a few years ago the prevalent concern was that making images available online and generally shifting the experience online would adversely affect in-person visits and related revenues, that mind-set is changing: “When people can see artworks online, it’s a taste and they want to see more, often in person if they can,” says Carrie Reborá Barratt, the deputy director for collections and administration at the Metropolitan Museum of Art in New York.⁵¹

Despite the many challenges, three trends across Europe are evident: There are increased efforts to digitize content, enhance interactive experience, and collaborate among institutions.

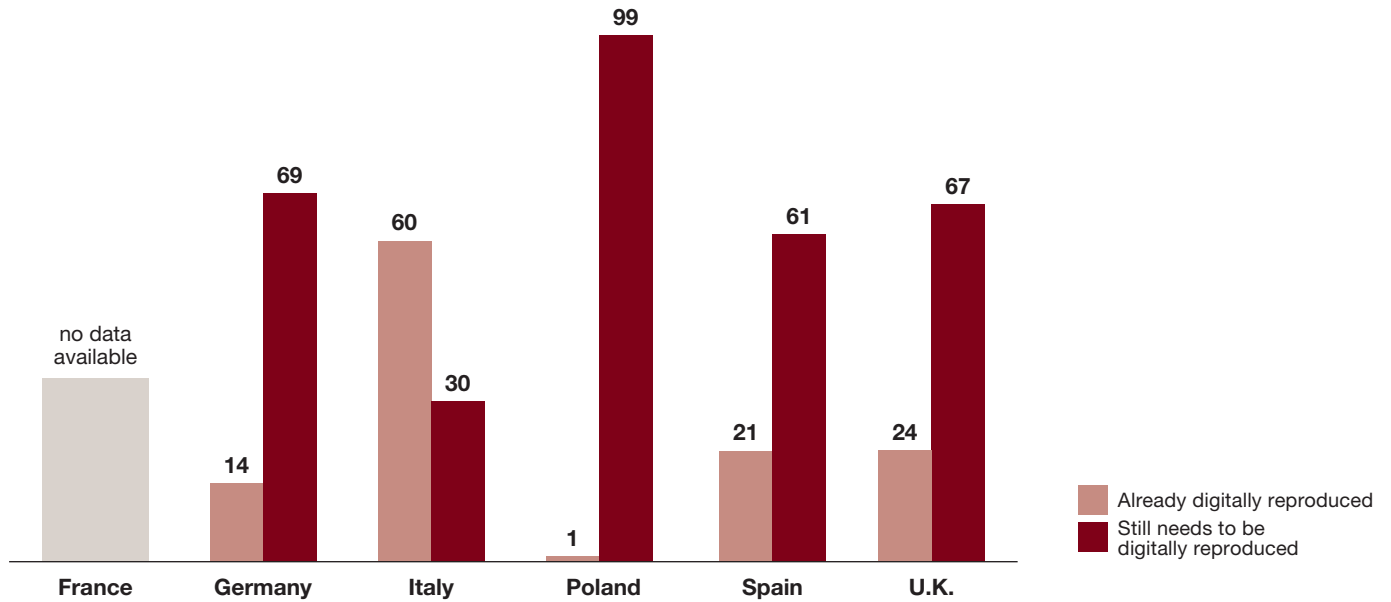
- *Digitizing of content.* The aim of the digitization effort is to preserve content and to enable new models for targeting and engaging audiences. The importance of digitizing European cultural heritage, including museum content, has been recognized by the EC. That body is monitoring the progress of digitization, co-funding research and innovative activity, and setting out clear recommendations for the digitization and online accessibility of cultural material and for digital preservation. However, there is still much work to be done. In 2013, just 24 percent of Europe’s museum content was reported to be digitized, and progress varies considerably among member countries (see *Exhibit 22, next page*).
- *Enabling an interactive consumer experience.* Making content digitally available will enable museums to choose how to make the content accessible and how the consumer will ultimately view, engage with, explore, and experience that content. At a most basic level, this entails a dedicated Webpage as well as links to social media platforms such as Facebook and Twitter. These practices are no longer considered innovative — indeed, they have become basic consumer expectations, and most museums already make use of them. Some museums have developed their own apps. The U.K.’s Tate currently offers 16 apps, mostly free of charge, including educational ones and some just for fun. The Budapest Museum of Fine Arts has developed an app called SzépMu SL for deaf visitors, featuring videos in sign language for about 150 of its paintings.⁵²

Exhibit 22

A large portion of museum collections in Europe still needs to be digitized

Focus country percentage of digitization

2013, n=155



Note: Does not include weighted averages; institutions with small collections count for the same weight as institutions with large collections. Numbers do not add up to 100% as not all content is deemed necessary to be digitized. No data available for France. Sample size: France n=0, Germany n=77, Italy n=1, Poland n=2, Spain n=46, U.K. n=29.

Source: Enumerate; Strategy& analysis

As consumers become more accustomed to shaping their own digital experiences, museums will have to cater to their expectations. The Cultural Heritage Experiences through Socio-Personal Interactions and Storytelling project, or CHESS, is supported by €2.8 million in funding from the European Commission. Developed by British, French, German, and Greek partners, the project's aim is to make available a mobile technology that will allow museum visitors to personalize their itinerary and experience. The CHESS app, which will be available for download, will register the user's interests, likes, and dislikes based on a survey and then guide him or her through the exhibit based on the user's interests. The experience is further enhanced through multimedia, 3D, and augmented reality games, as well as by talking objects encouraging visitors to engage with them. The app has been successfully demonstrated at the Acropolis Museum in Athens and the Cité de l'Espace park in Toulouse.⁵³ The success of individual institutions in the future will be largely determined by how well they can capture their audiences' interest and incorporate digital aspects into the consumer experience. But first, museums must have a digital strategy. (See "The Tate's digital strategy," next page.)

- *Collaboration.* This will be key for cultural institutions in securing their place in a digital society. Fast-changing technologies, shifting consumer expectations, and ever-growing amounts of content will make it increasingly difficult for individual institutions at either the local or national level to fully keep up. Collaboration among them will allow for an exchange of information and know-how while giving them the ability to learn from one another's capabilities and engage with the educational community.

Currently, there are two major collaborative projects under way in Europe: the Google Art Project and the Europeana project. Both initiatives are working with museums across Europe to create an online platform that would allow the public to access content housed at the partner museums. The Art Project collaborates with more than 150 museums, including some of Europe's most prestigious, such as the Tate, Uffizi Gallery Museum, Van Gogh Museum, Rijksmuseum, Albertina, and Musée d'Orsay. It enables virtual, high-definition visits to the collections, leveraging existing Google Street View and Picasa technology.

The European flagship project Europeana is a single multilingual gateway offering access to digitized cultural material to a global audience. The project was launched in 2008 with the aim of making all of Europe's digital cultural content (museums, libraries, and books) accessible to the online audience by 2025. Europeana's network spans thousands of cultural institutions, politicians, tech entrepreneurs, open-data activists, developers, and researchers, and currently offers

The Tate's digital strategy

At the Tate in London, digital has thus far been the concern of a single department. But its digital strategy, known as “Digital as a Dimension of Everything,” is designed to infuse digital throughout the entire organization. By leveraging digital know-how and activities across the organization, the Tate intends to enhance digital content and the visitor experience; to create, engage, and foster a digital community; and to leverage digital revenue opportunities.

Digitizing content and enhancing the visitor experience. The digital gallery aims to transform the experience of visitors to the galleries. Wi-Fi-enabled galleries and mobile websites designed for in-gallery use will allow visitors to access information about the works independently or to seek more information from tablet-assisted employees. Digital learning studios will be set up to foster new forms of engagement and learning experiences. Interactive comment walls linked to social media have already been prototyped and are to be rolled out more widely. Having digitized its art collection, the Tate now seeks to digitize the archive and special library collection, including its holdings of artist books. The content is to be made available on the “Art and Artists” section of the website, allowing users to move between related materials.

Creating a digital Tate community. The Tate has already established a number of community initiatives, including Tate Kids, Turbinegeneration, and Tate Collectives, as well as blogs and

social media profiles. To build on these efforts and further enhance community involvement, the Tate has set out to focus specifically on three areas: blogging, social media, and third-party platforms and learning and social collections. A relaxation of controls of who “speaks” from the Tate via blogs is anticipated; so far, curators have contributed to blogs about their exhibitions, with some involvement from research and project employees. In the future, blogging is to become a working practice for most departments, with contributions from staff across the organization. Social learning is to be enhanced via the current Archives & Access project, designed to add social learning features to the online art and archive collection through user-generated content such as audience voices and ideas.

Generating revenues from digital initiatives and products. New digital revenue strategies at the Tate aim to capture untapped revenue opportunities as well as transform and enhance communication with visitors. A number of projects and ideas are currently in planning or are already being rolled out. Multimedia tours for visitors' devices will offer both free and paid content to visitors, with fundraising enhanced through text messages requesting donations at optimal points along the visitor's journey. New digital products will be offered, including online courses, apps, and e-books for purchase through the iTunes newsstand. Finally, paperless, self-service ticketing will help pave the way to the personalization of paid content.⁵⁵

more than 30 million metadata records from more than 2,500 institutions across Europe. Since it began, the project's objective has been extended further; it now recognizes not only the importance of making content available online but also the need "to build on, play in and create with" that content. Tailoring the user experience for three distinct customer groups — end-users, professionals, and creators — Europeana is playing an important part in bringing together professional, cultural, and technical communities and thus further promoting collaboration, innovation, and creation.⁵⁴

Digital technologies offer a range of ways museums can reinvent their role and purpose. Going digital will affect how museums allocate their resources and develop the skill sets needed to manage and share their archives. In effect, digitization is forcing the cultural community to extend its cooperative ecosystem in ways very similar to what is happening in the book publishing industry.

New models, new products

Across the creative industries landscape, revenues are set to grow — if the consumer experience can be further enhanced. To participate in the growth of pay revenues, players will need a high level of innovation and agility in the digital domain. The creative industries have grown accustomed to a business model driven by hits, blockbusters, and bestsellers that must support all the less successful products and services. But the speed and complexity of the business have risen considerably over the past several years. It is no longer sufficient for a rock-and-roll band to release an album and market it through interviews on TV and in print and via a tour. Instead, fans now expect a constant conversation with the star, availability across different platforms, and valued services above and beyond the music. Twitter has become an important tool for celebrities to connect with the public in a way that makes their fans feel that they have an emotional connection and keeps the celebrity relevant in a time of constantly shifting trends. Katy Perry has become one of the most successful celebrities catering to this shifting customer expectation; hers was the most popular account on Twitter as of April 2015, with more than 67 million followers.

In addition to addressing the rising complexity of their core businesses, media companies need to expand their product range and cater to new consumer demands if they are to grow, or even sustain their current levels of revenue. Diversification is key. Most major publishing houses have indeed moved into online ventures not directly related to their core capabilities — for example, online dating platforms or professional networks. Even though these ventures may be somewhat related to their traditional classified advertising businesses, the dynamics of the online

Music fans now expect a constant conversation with the star.

The promise of 3D printing

After enduring many years as little more than an overhyped niche technology, 3D printing is now being recognized for what it is: a force to be reckoned with that has real disruptive potential in manufacturing, architecture, education, healthcare, and other sectors. Industry analysts see a strong growth trajectory in the mid-double digits, with today's global market of between €2 billion and €4 billion set to triple between 2014 and circa 2018.⁵⁶

State-of-the-art 3D printers have the ability to create an infinite variety of complex shapes, in different materials, and on demand. Initially a high-cost, high-definition solution with a steep barrier to entry, given the required investment in equipment, 3D printing is seeing that barrier fall. A recent PwC survey shows that small companies are keeping pace with large enterprises in the adoption of 3D printing.⁵⁷

Business models in which 3D printing is offered as a service are already being widely adopted, and new classes of printing equipment make 3D printing feasible even in small office or home application settings. By bridging the gap between the digital and the physical worlds, 3D printing is also changing the game throughout the creative industries, promising new ways to play and new ways for designers, artists, and creative entrepreneurs to build businesses.

For example, Shapeways, a Dutch-American spin-out from the Philips incubator, is building a 3D printing services hub that provides consumers, artists, and businesses with access to professional 3D printing facilities. A recently announced partnership with Hasbro, the toy and game company, suggests the role 3D printing can play when applied to merchandising and licensed media formats.

Many hobbyists and small businesses have started their own lines of small 3D-printed products such as jewelry, fashion items, and mobile phone accessories. Indeed, many artists and designers are experimenting with the technology in order to understand the full extent of its benefits and fields of application.

The ability to reproduce objects at what will eventually approach marginal cost through 3D printing poses serious questions about intellectual property rights for manufacturers and designers that are in many ways similar to the issues regarding peer-to-peer file sharing faced by the music industry. However, the music industry has shown that this not only presents challenges but also creates opportunities in content creation, discovery, distribution, and, eventually, monetization.

ecosystem are quite different, and it isn't clear how many of them will be sustainable.

In summary, the players in every branch of the creative sector are now, finally, establishing successful new models to monetize the digital usage of their customers. Pay revenues are expected to remain the primary avenue of growth for the industries, if consumer experiences can be further enhanced and the players can manage the resulting complexities. Growth in advertising revenues will continue to be challenging for all sectors, given the competition among the sectors and the current gap between advertiser expectations and actual results. All the creative industries, however, are destined for significant growth online. Once broadband service and mobile devices have penetrated even further, the tipping point for acceleration will be crossed (*see Exhibit 23, next page*).

Gaming, which was already bringing in online revenues in 2001, has become the single largest online category, driven by consumer pay revenues. A particularly interesting reason for this growth has been the introduction of innovative virtual goods, such as additional capabilities or weaponry for characters in online games. These little pieces of software are, of course, very cost-efficient to produce, but can greatly enhance the experience for the consumer.

In every digital sector, creative production has benefited tremendously from technological change. Entirely new content is possible — new special effects and 3D rendering in feature films, for example. New models of collaboration make the process of creativity much more effective, enabling real-time interaction with experts, colleagues, and friends around the globe. The means of distribution have already outstripped the supply of high-quality content, putting creators in an even better bargaining position; now, video-on-demand services, video platforms, and streaming services offer new outlets for creators to monetize their content and create entirely new experiences for consumers. In some cases, the new setup bypasses traditional intermediaries. For music and other creative content, crowdfunding and distribution on digital platforms are gaining importance; one early adopter is the German rock band Einstürzende Neubauten, which has financed and published entire albums with the help of supporting fans.

As a result of these developments, many of the established business models of publishers and distributors have become entirely obsolete. Why go to the expense of producing printed encyclopedias when entire encyclopedias are available online? Other business models, such as online advertising in the periodicals sector, do not yet deliver the same digital revenues as their offline equivalents. The non-digital creative ecosystem, long dominated by horizontally

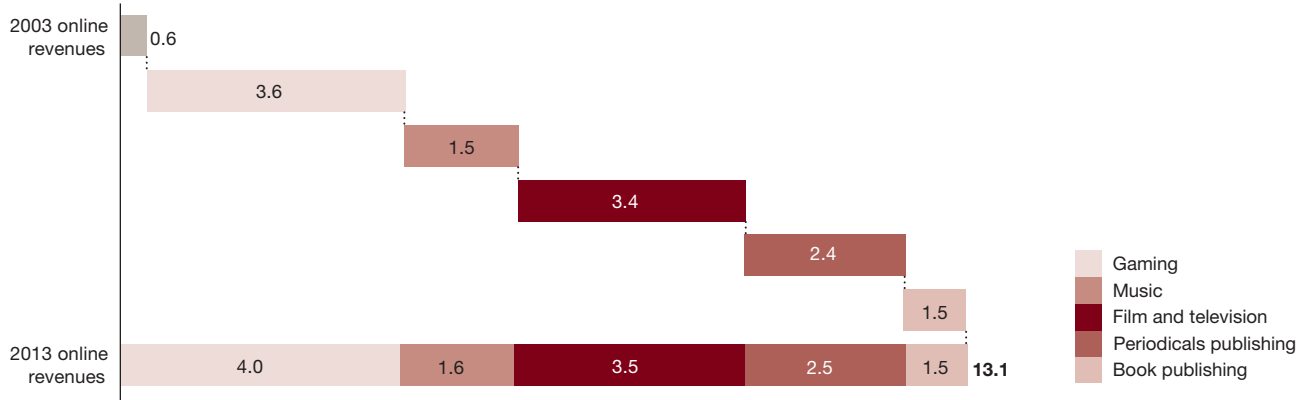
Gaming has become the single largest online category, driven by consumer pay revenues.

Exhibit 23

Prospects for growth are strong in all the creative industries

Online revenues: Industry view

EU-27, 2003–2013, pay and advertising in € billions



Main drivers and new business models

Gaming

Video games are the largest growth pocket in the creative industries online, driven mostly by consumer pay revenues

Music

Digital music revenues are mainly driven by consumer pay revenues

Film and television

Online film and television revenues (not including TV subscriptions) are driven primarily by consumer pay revenues, but also include online and mobile advertising

Periodicals publishing

Online advertising makes up nearly 70% of digital revenues in periodicals publishing

Book publishing

E-books are driving online revenues

Note: Numbers may not add up due to rounding.

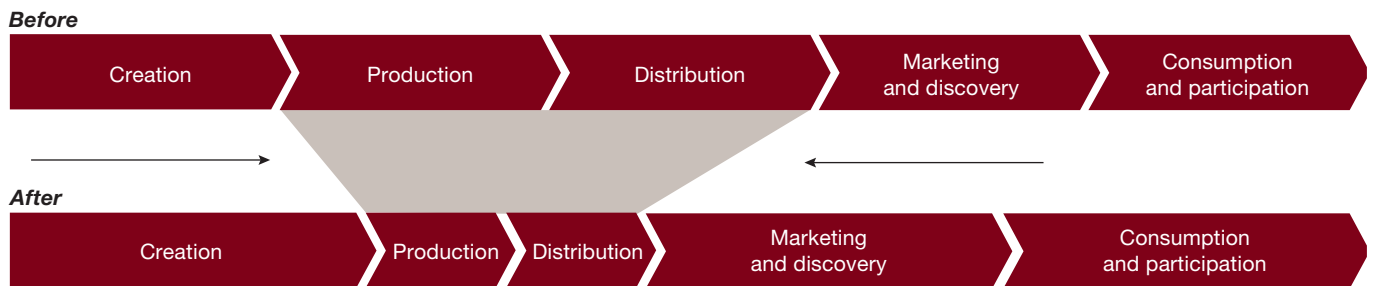
Source: PwC; eMarketer; Oxford Economics; Euromonitor; Strategy& analysis

integrated intermediaries across production and distribution has been disintegrated by very cost-efficient digital alternatives.⁵⁸ Thus, the relative economic importance of these players in the value chain has decreased (see Exhibit 24).

Ultimately, the efficiency gains from digitization will be reaped not just by consumers and creators but also by the industry itself. A comparison of large European media companies in print publishing, television, and the larger entertainment space shows that 50 percent of these companies were able to grow their earnings before interest and taxes (EBIT) more robustly between 2011 and 2013 than between 2005 and 2007. And 50 percent were even able to increase profits more strongly than revenues.⁵⁹ Still, economic performance varies significantly from company to company. In this time of transition, the established players all have to maintain the physical distribution of their products even as they build up their new digital infrastructure and capabilities. Of course, that's not a problem for new entrants into the space, which can benefit from a digital-only approach.

Exhibit 24

New usage patterns and technologies are leading to changes in how value is distributed in the creative industries



Source: Strategy& analysis

6. Opportunities in a new creative ecosystem

The creative industries are successfully establishing new digital models. Pay revenues are expected to remain the main source of growth for the industries if the experiences offered to consumers can be further enhanced and the resulting complexities managed.

Across all creative industries, success at digitization requires trial and error. New businesses need to be launched quickly, tested in the market, adapted if necessary, and closed down if they do not work. This approach can be challenging, especially in large corporate settings; new entrants and startups tend to find alternative ways to thrive in the creative sectors more easily.

Business will get more complex as companies realize they have to deal with a high number of small revenue pockets. Agility and speed will be as important as size, very often favoring new players. Cannibalization of traditional revenue streams and fear that their current assets will be devalued have been holding back some of the established players. But as long as the consumer benefits — through increased usage and a significantly enhanced user experience — the creative sector will find a way to thrive.

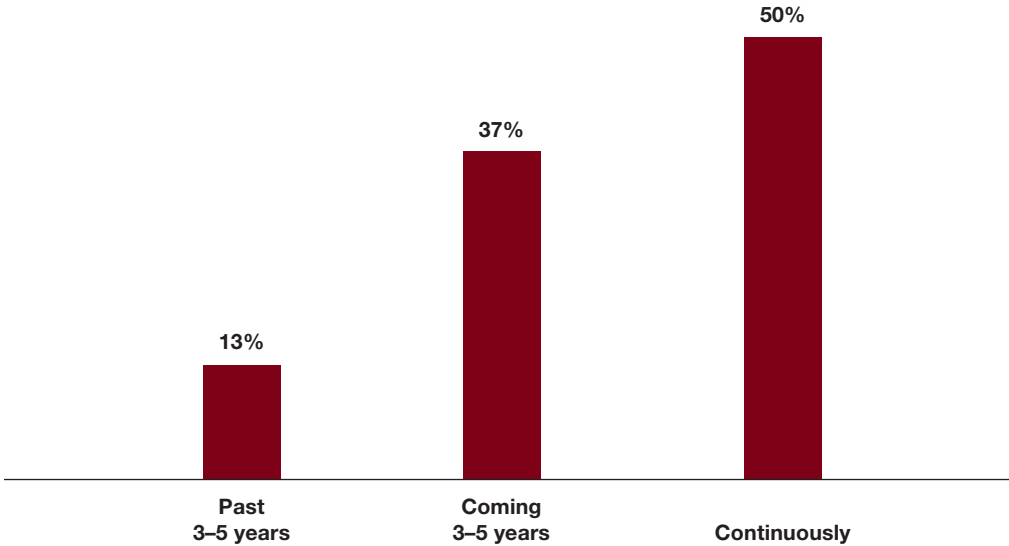
The quantity and relevance of creative products have increased steadily, the barriers to become a creator or contributor have been lowered, and new social, mobile, and local usage patterns have emerged. These behavior patterns are still more pronounced among younger people, but older people will eventually follow suit. As in the past, the many new digital media possibilities will not replace old media channels, but rather augment them, even as they impact the creative industries' value chain.

Experts agree that the biggest changes are still to come. An overwhelming 87 percent of those surveyed believe that the greatest changes from digitization will come in the next three to five years, or that they will happen on a continuous basis (*see Exhibit 25, next page*). This projection is clearly supported by industry data. According to a 2013 report by IAB Europe, 68 percent of Europeans own a mobile

Exhibit 25

Experts expect more changes from digitization to come

Change impact from digitization



Source: Interviews;
Strategy& analysis

phone with Internet access, and 44 percent own a smartphone. The IAB found that 12 percent of Internet users in Europe access the Internet via tablets. In the U.K. and Italy, these figures are estimated at 25 and 19 percent, respectively.⁶⁰ Ownership of Internet-enabled mobile phones has increased by 42 percent in the past three years, and that by itself has led to strong growth in the time spent on the Internet via mobile devices. In the future, consumers will spend an even greater share of their leisure time on these devices, accessing creative products and services among all the entertainment, information, and communications offerings available.

For the creative industries, these changes represent good news. Digital revenues have been the growth driver of the creative sector over the past 10 years, and the demand for creative products is set to grow further. In aggregate, the entire revenue increase of €22 billion since 2003 can be attributed to digital, which has been growing at an annual rate of 10 percent. But the traditional world of integrated players profiting from a stable value chain is not coming back, making further changes to the business model of traditional players necessary if they are to return to a growth track. The evolving digital ecosystem will be much more fluid, but it will also present abundant opportunities for all players.

The challenges that digitization presents for traditional business models and established intermediaries in the creative industries are many. The demand for creative products is increasing, but it is also fragmenting. Non-digital media franchises must now compete with purely digital brands and platforms for the time and attention of the consumer — even as more than 20 percent of the time spent online is already spent on social networks. In this world, traditional offline media strategies will be very hard to defend. The value of some older capabilities — for example, design for the printed page and physical media distribution — will be significantly reduced as media companies become more like tech companies.

Along the same lines, as the new economics of content production and distribution greatly reduce the value of physical infrastructure for players in the creative industries, the sector's power balance is being reshuffled. Distribution and consumer access have become “free goods,” rendering infrastructure ownership much less important than an effective marketing capability. Intermediaries such as content aggregators and distributors will continue to play a significant role only if they can secure and manage reach by combining attractive brands with deep content skills to create unique consumer experiences.

The demand for creative products is increasing, but it is also fragmenting.

In the brave new digital world, the established concept of a stable value chain will eventually disappear, to be replaced by a network of relationships among the various constituencies (see *Exhibit 26, next page*).

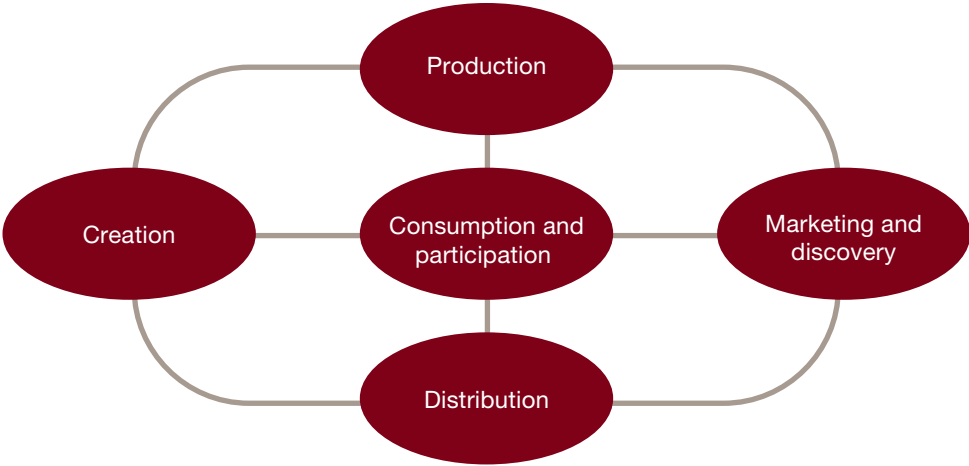
So far, the changes in the creative ecosystem have had no major impact on the overall number of jobs in the sector. Projecting the jobs trend into the near future is very difficult, but we can be confident in the need for a dramatically different composition of skill profiles going forward: The number of software engineers employed in the sector will increase at the expense of jobs involving the physical creation and distribution of content, such as printers.

Clearly, the creative industries can thrive online, and they will continue to develop successful new business models. In contrast to traditional models, these new models will prosper by providing a seamless user experience across devices and media types, a strategy that will become an important differentiator in the fast-moving consumer market. Successful companies and services like Spotify and iTunes demonstrate that new digital features will most likely be introduced first by nontraditional players in the creative sector. As such, alliances and partnerships among traditional and new players on a case-by-case basis will be critical for success in the new creative ecosystem; no single player will be able to deliver the full digital experience on its own. The ability to quickly think through, understand, and make deliberate choices about where to compete and where to join forces will become perhaps the most critical capability in the digital world of the future.

Exhibit 26

A much more fluid creative ecosystem architecture is evolving

New creative ecosystem architecture



Source: Strategy& analysis

Appendix: Methodology

This report is supported by desk research, expert surveys in the six focus countries (France, Germany, Italy, Poland, Spain, and the U.K.), and numerous selected deep-dive interviews with industry experts across Europe.

The results of our research are based on respected industry sources such as PwC's Global Entertainment and Media Outlook: 2014–2018, Eurostat, and IAB Europe's Mediascope Europe. For data regarding jobs, we contacted most local associations in our focus countries and built the employment figures from the bottom up. Wherever possible, we used source data, and if no original data was available, we derived it through comparable country data. For example, if no full EU-27 data was available, we scaled up the existing data in five European country clusters; e.g., the U.K. and Sweden were used to scale up the entire cluster consisting of the U.K., Ireland, Denmark, Finland, and Sweden. The scaling factor used was about 1.19 on average for revenue scaling — in other words, 84 percent of the resulting figure consists of original data, while 16 percent was scaled up in a country cluster according to 84 percent of the comparable original data.

In beginning the research, we conducted an expert survey with representatives from the creative industries in each focus country. To quantify their views and opinions across the six focus countries, we used an anonymous live voting system; we had 54 participants voting on 13 different questions, gathering a total of more than 700 data points. To present the numbers in this report, the voting results by country were normalized in order to account for the different number of participants in each country. We also conducted one-on-one interviews with experts in the focus countries to capture further perspectives from industry representatives and conduct research for the sidebar case studies — some of which, but not all, have been written on the basis of in-depth interviews with company representatives. Material requiring permission was not used.

The quantitative analysis used in this report builds on the methodology used in a previous study that we conducted in 2013. In updating our

research we examined more case studies, and for the first time included data on e-books, museums, and 3D printing.

Employee numbers are included according to Eurostat's definition: Book publishing excludes both the distribution of books and independent writers; periodicals publishing includes newspapers, journals, periodicals, and all other publishing activities, but excludes independent writers and photographers; film and television includes motion picture, video, and television production and post-production, and motion picture projection, but it excludes independents; music includes sound recording and music publishing activities but excludes all independents and performing arts activities such as theaters. Gaming includes the publishing of all computer games, both as software and online.

The revenue definitions are as follows: Book publishing includes all revenues from electronic and print consumer retail spending for consumer and educational books but excludes B2B publishing such as professional books; periodicals publishing includes all electronic and print advertising and circulation revenues; film and television includes box office and cinema advertising, electronic home video (video-on-demand, pay-per-view, and over-the-top streaming), physical home video (sell-through and rental), and broadcast/mobile/online TV advertising such as YouTube, but excludes music videos (which are counted in the music category), public TV license fees, and subscription spending (subscriptions for basic and premium channels) for cable operators and others; music includes digital recorded music (such as streaming subscriptions and advertising revenues) and physical recorded music, as well as concerts and sponsorships; gaming includes revenues from console games (including computer games) and online games such as downloads, online, and mobile games, but does not include gaming console equipment.

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