

Connected devices and services: Reinventing content



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Forum d'Avignon

The Forum d'Avignon aims at strengthening the links between culture and the economy, suggesting subjects for reflection at global, European and local levels. The Forum d'Avignon was created after the ratification of the UNESCO convention on cultural diversity, and since its beginning, has been backed by the French Ministry of Culture and Communication. Each year the Forum organizes, with its partners, international meetings which provide opportunities for unique discussions and exchanges between actors from the worlds of culture, the creative industries, the economy and the media.

A think tank dedicated to culture. Each year the Forum d'Avignon publishes new studies highlighting the essential links between culture and the economy, on themes suggested by its

Advisory Board. Throughout the year these themes are examined and proposals put forward by working groups that are organized by the Forum d'Avignon with experts, international consulting firms and its public and private partners. The Forum's think tank tackles subjects such as culture, financing and economic models; culture and attractiveness of the territories; culture and digital; culture and innovation. For the Forum's third edition in 2010, six publications have been produced, following the three studies presented in 2009.

The international meetings of culture, the economy and the media. An international and cross-sectoral event associating debates and performances by artists, the Forum d'Avignon is a field for reflection in which the economic dimension of culture and the roles of social cohesion and job creation in cultural areas are being explored. The Forum d'Avignon is where concrete proposals, unique networking opportunities, heritage and innovations discoveries are brought together. The directions explored each year are disseminated among national and international authorities. Over 400 committed people come together: artists, chairmen, writers, professors, film directors, philosophers, students from international universities and representatives of the creative and cultural industries. The diversity of the points of view is also symbolized by the cosmopolitan diversity of the speakers, coming from all over the world.

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Acknowledgements

Bain & Company would like to thank the following people who strongly contributed to this study: The Board and the Advisory Board of the Forum d'Avignon, the team of the Forum d'Avignon: Laure Kaltenbach, Managing Director; Alexandre Joux, Director; Rebecca Amsellem, Project Manager of the Forum d'Avignon; Coline Juillerat, intern; and the participants of the task force group: Alexandra Laferrière, Policy Manager-Content, Google, France; Cédric Naux, Director of Digital Development, Bayard Jeunesse; Carolina Lorenzon, International Affairs Director, Mediaset; Pierre Geslot, Head of Digital Reading Projects, Orange, France Télécom; Sylvie Forbin, VP Public & European Affairs, Vivendi; and Marie Sellier, Director, Corporate Public Affairs & Intellectual Property, Vivendi.

Summary

Internet-connected televisions, consoles, over-the-top (OTT) boxes and tablets could be present in 60 percent of households by 2014, according to a survey conducted by Bain & Company, adding a new chapter in the "permanent revolution" that is shaping the media, entertainment and cultural landscapes.

The survey of 3,000 consumers in the US, Europe and Asia suggests strong interest in what we call "connected content experiences"—that is, content accessed through the next generation of Internet-connected devices and services. While video and gaming activities remain top of mind among consumers, sizable interest exists in other kinds of connectable experiences, including those involving live entertainment and cultural content.

Video consumption will be most transformed. Fifty percent of surveyed consumers are committed to using search engines and social networks to access a broad range of content. This content-finding behavior creates distribution and format opportunities for the video industry, while presenting challenges for incumbent platforms and brands. For **video games**, connected devices will fuel the emergence of a new generation of casual and social gamers, as well as low-cost and "freemium" business models. **Live entertainment** could benefit from broader, over-the-top distribution, but the segment represents a more limited opportunity due to the smaller markets and consumers' low willingness to pay. In terms of the **visual arts and heritage** segments of the cultural market, consumers could gravitate toward experiences that blend physical and virtual presence remotely from home, around town or while on the move through a museum. Such experiences open up creative possibilities, particularly among existing enthusiasts, but they will have limited appeal for the mass market.

Media and entertainment experiences also face competition from other online activities on connected devices, and in particular from social networks. Price sensitivity and a sluggish advertising market will combine to limit the incremental value that can be created. Significant change lies ahead for the media and entertainment industry as content platforms, new entrants and incumbents battle for profits and market share.

More than ever, leading media companies and cultural institutions will need to embrace new business models and support their brands through investments in ambitious content. In turn, these experiments could disrupt the delicate economic equilibrium on which content creation relies. But they could also foster innovation across the industry and the broader creative ecosystem.



Introduction

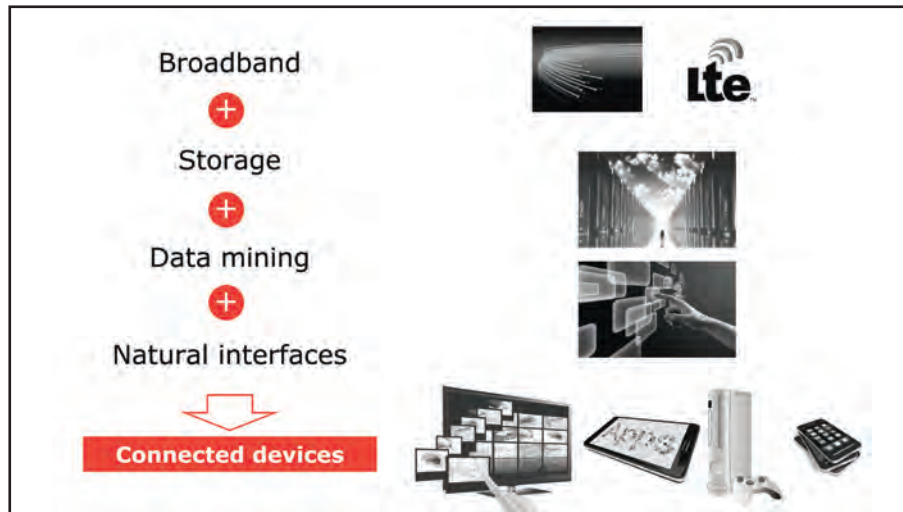
Consumers are rapidly embracing the use of smart TVs, OTT boxes, online game consoles and tablets. As these connected devices and services address latent needs, they are also driving new behaviors and transforming the way consumers experience content.

In August 2011, Bain & Company conducted a survey of more than 3,000 consumers in the UK, France, the US, China and India to assess the potential impact of connected devices on content consumption—including video, gaming, live entertainment, and visual arts and heritage content. We addressed the following questions:

- Do connected devices and OTT services represent an opportunity to better disseminate content and culture, as well as attract both new and lapsed audiences?
- Will the increasing reliance on search engines and social networks give computers a stronger influence over content choices at the expense of editorial and human factors?
- Will interface technologies such as touch screens, motion controls, 3D and augmented reality alter the way consumers experience content? Will audiences use these interfaces to interact with content and authors or to enjoy hybrid experiences combining physical and virtual content?
- Finally, will sustainable business models support connected content experiences and generate incremental value for the broader creative ecosystem?

While consumers display a sizable interest in connected media and entertainment experiences, we found that such enthusiasm could translate into limited potential to both expand markets and increase the overall time spent with content. As they create new territories to explore imaginative ways of experiencing content, connected devices and services raise equally challenging distribution and profitability issues.

Content in the connected age



India's telecommunication infrastructure will still limit broadband access to less than 25 percent of urban households by 2014, according to Ovum. Smart TVs remain rare today around the world, but the demand for them will be growing rapidly: combined with new boxes, we expect more than 45 percent of people in Western countries to own connected TVs by 2014.

Finally, connected tablets will also grow in importance, reaching up

Four trends lie behind the rapid shift toward connected content experiences using the next generation of devices and services.

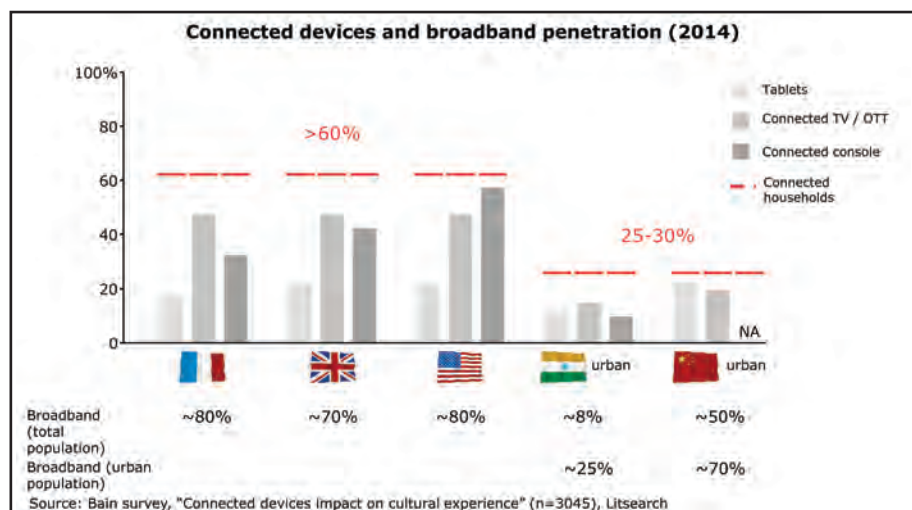
Access to fixed and mobile broadband has accelerated the development of connected content—in particular, bandwidth-heavy, high-definition video and 3D. Investments in massive data centers and cloud computing have made content available everywhere. Innovation in data-mining software has helped analyze online behavior and anticipate consumer needs. And intuitive interfaces on connected TVs, tablets and game consoles, which use voice recognition, touch and motion controls, have brought innovations to broad audiences.

Connected devices penetration could exceed 60% of western households by 2014

to 25 percent of homes across the US, the UK and France by 2014, based on our survey.

Overall, our study suggests that some type of connected device could be in more than 60 percent of households in the US, the UK and France by 2014—and in up to 30 percent of households in urban China and India.

These rapidly maturing technologies will reach mass adoption by 2014. High-speed Internet access is already ubiquitous in Western countries like the US, the UK and France, representing approximately 70 percent to 80 percent of households, according to Ovum, the technology research firm. High-speed access is growing in urban China, where 70 percent of households should have such access by 2014.



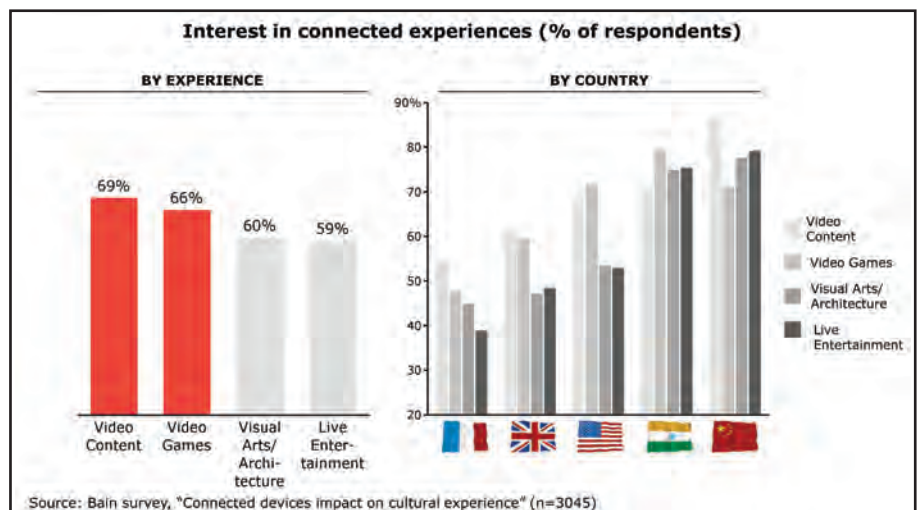
Toward connected content experiences

Consumers show strong interest in experiencing a broad range of connected entertainment and cultural content, with interest levels above 60 percent of those we surveyed. While nearly 70 percent of respondents already think of video and gaming through digital terminals as connectable experiences, other types of content, such as live entertainment, visual arts and heritage, also generate measurable interest for 60 percent of respondents.

Consumer interest in connected services is particularly high in the most technology-friendly, early-adopter markets, such as the US and the UK. In urban India and China, consumers show even stronger interest, although infrastructure limitations there could hinder the wider dissemination of connected experiences by 2014, particularly in India.

However, the question remains: Do connected devices and services represent an opportunity to more widely disseminate cultural resources, increase content diversity and create value?

70 percent of respondents already think of video and gaming as connectable experiences



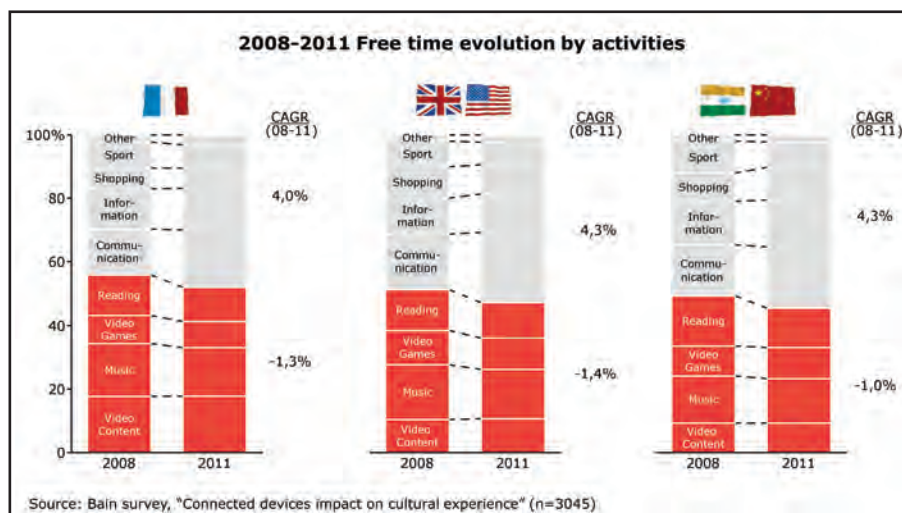
Reinventing the content experience

Consumers have limited free time

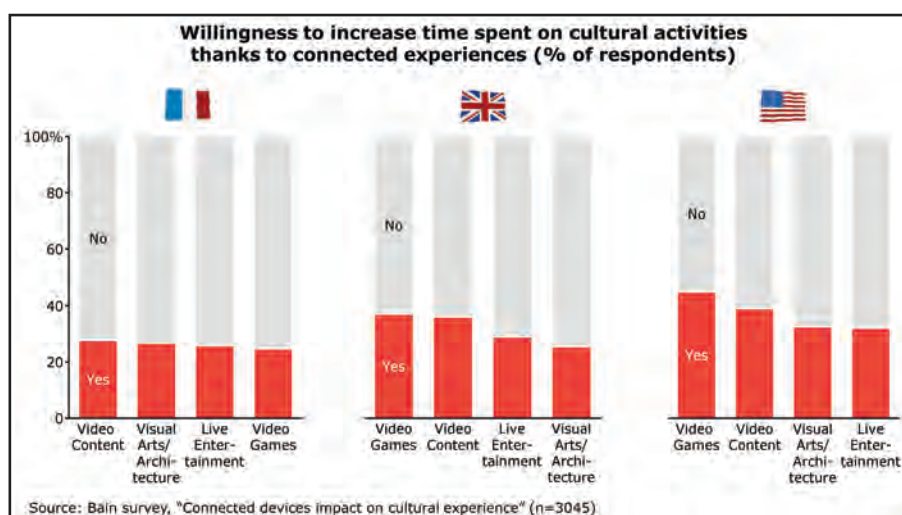
Culture and entertainment face competition from activities like sports, shopping and communication. And thriving social networks, including those on connected devices, have only amplified communication options.

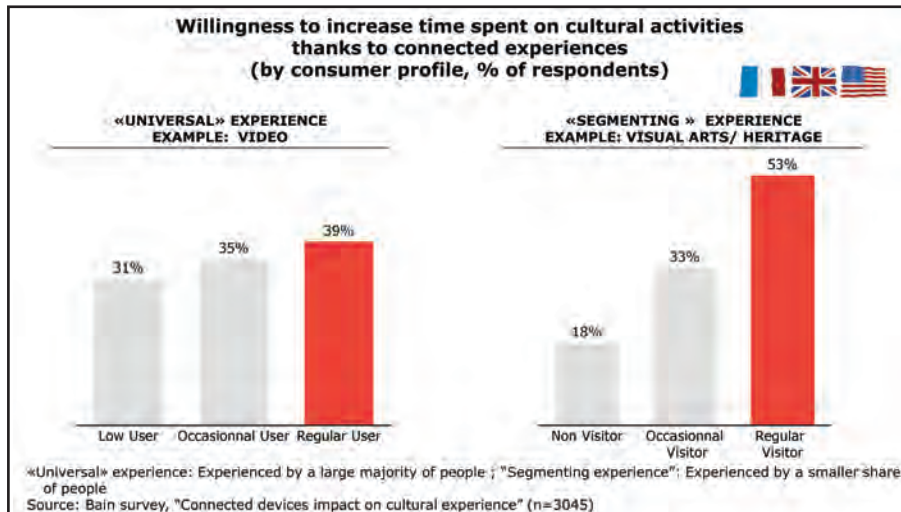
As a result, even though Western consumers express strong interest in connected content experiences, fewer than a third of respondents say they envision dedicating more time to entertainment and cultural activities because of enhanced content. Moreover, those willing to dedicate more time to connected experiences are primarily “core users” who, for instance, already heavily access videos or games during the week or visit museums several times a year. At the other end of the spectrum, fewer than 20 percent of “non-users” of various activities intend to start experimenting with them through connected platforms. The survey also highlights a significant generation gap in demand for connected experiences. Survey respondents in Western countries aged 18 to 35 are nearly twice as willing to dedicate more time to video due to connected services than those over age 55.

The overall size of the market and the amount of time allocated to culture and entertainment are unlikely to shift dramatically with the growth of connected devices and services, thereby limiting the potential for volume-driven profits. The main opportunity lies in improving the content experience itself.



Less than a third of western respondents would dedicate more time to cultural activities through connected experiences





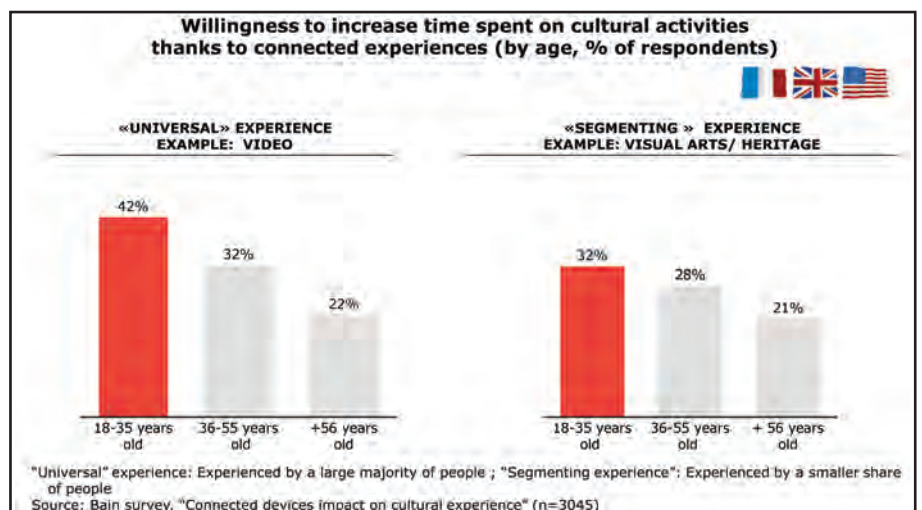
The four dimensions of the connected content experience

Whether through radio and television broadcasting or interactive CD-ROMs and online encyclopedias, technology has always had an impact on the way consumers access content. Beyond new distribution channels and interfaces, connected devices and services can transform the content experience along four key dimensions:

Customization. Distribution has expanded exponentially with the advent of the Internet, offering consumers a virtually unlimited choice of experiences. But an infinite amount of inventory brings little value without the means to explore and tailor it to individual tastes. Data-mining software now allows connected services to offer custom content to everyone, in a transparent, user-friendly way – such as personalized recommendations from Amazon, smart playlists by Spotify, and “Genius” selections by iTunes, based on the usage data analysis of individuals and of the whole user community.

Touch, motion, and voice interfaces blur the distinction between “lean back” and “lean forward”

Interactivity. Touch, motion, and voice interfaces are blurring the distinction between “lean back” experiences like television and “lean forward” experiences like the Internet. Engaging interfaces on connected devices open up entertaining new possibilities for audiences to interact with content. Everyone is now free to choose the angle of the camera while watching a live concert, or learn more about the history of a specific artwork in a museum.



Mobility. Smartphones and tablets extend connected services to the physical world. Live events, art exhibitions and heritage sites can complement the live experience with additional “augmented reality” information and content while people move around. With the smartphone application *Jardins Versailles* created by Orange in 2010, a visitor to the famous French castle can enrich his visit through explanations by diverse experts (curators, gardeners, etc.).

A wealth of connected experiences is emerging along those four dimensions. Initial feedback from our consumer survey suggests exciting opportunities, but also real challenges to those who want to increase adoption and generate profits from these experiences.

Video: Shifting away from traditional players and formats

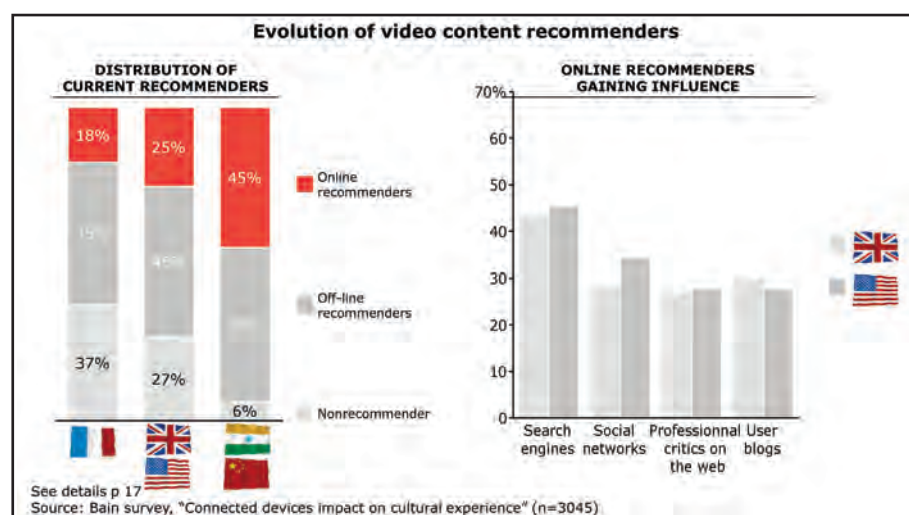
Music and video have been at the forefront of many digital revolutions over the last two decades. While music continues to lead the way, most recently through connected services like Last.fm and Spotify, video has experienced a slower evolution, in part due to bandwidth constraints.

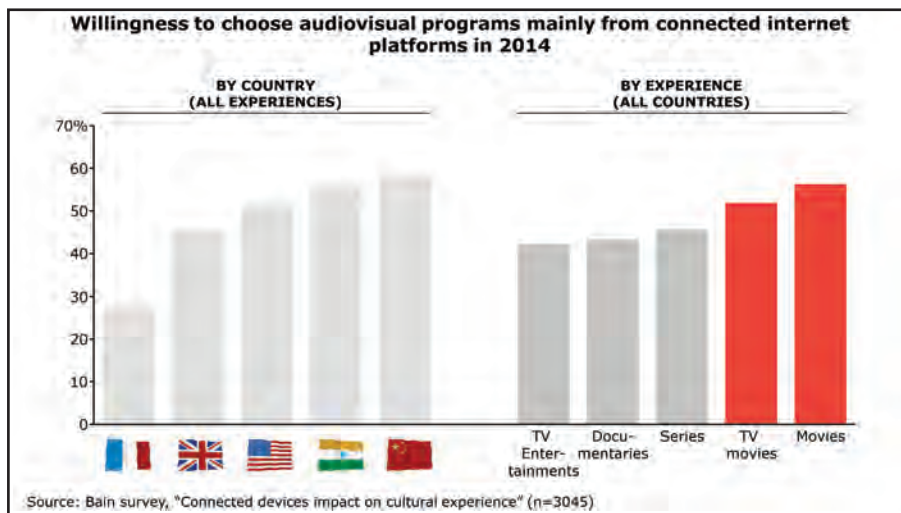
Today, traditional linear programming of the broadcast television variety still attracts a large majority of audiences, while video-on-demand has largely remained in the realm of players like cable operators and pay-TV platforms.

The situation could evolve rapidly, however. A majority of consumers we surveyed expressed interest in using connected services at the expense of traditional channels.

They are responding to the promise of increased content depth, breadth and personalized recommendations. To find content, half of these consumers in the US and the UK intend to increasingly rely on search engines and one-third on their network of online friends.

With connected devices, a growing quantity of “long-tail” content is available on television sets and tablets





fans can debate over an online discussion platform (Shankactive). Major studios also have experimented with this genre to expand the lifecycle of their flagship brands, as ABC did with Grey's Anatomy, for example.

While the majority of webisodes currently attract a limited audience, 30 percent to 45 percent of those surveyed in Western markets expressed interest in such formats on connected devices. The industry

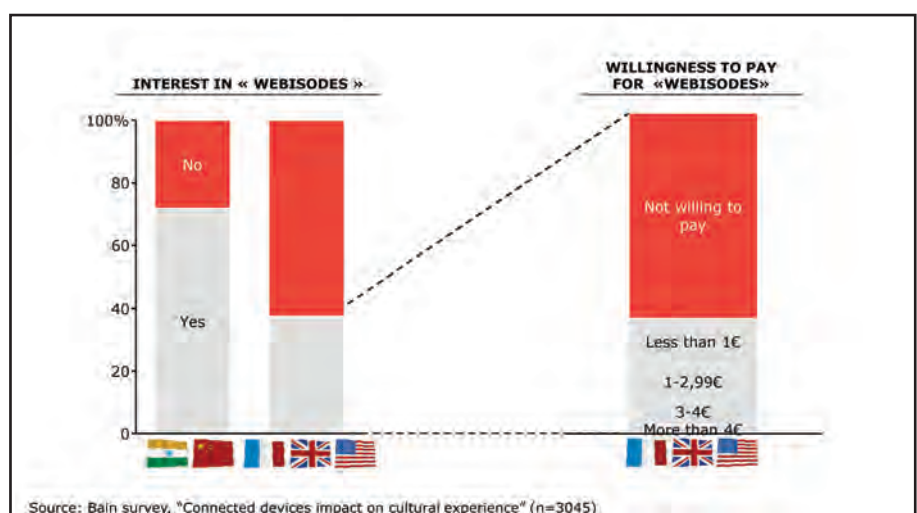
Fictional programming lends itself particularly well to such a transition. Distribution channels might segment themselves along the lines of linear light entertainment and on-demand serials and movies. Such an evolution challenges historical aggregators and editorial platforms—in particular, broadcast networks. Incumbents will have to defend their positions against such technology players as Netflix, Apple, Google and Facebook, offering an alternative, hybrid model combining human recommendations with data-mining technology.

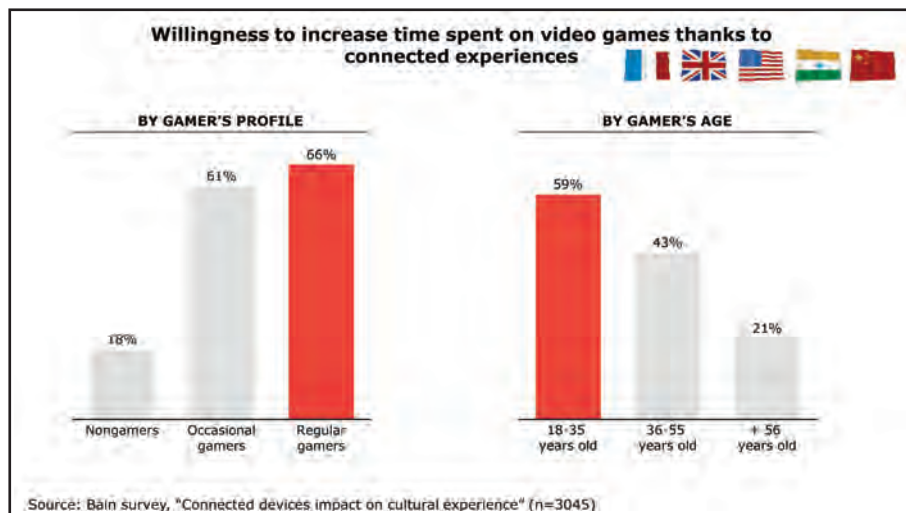
has already endorsed this trend and is mobilizing resources—both commercial, in the case of YouTube Next (YouTube's initiative to invest in Web production), and public, in the case

of the French government's extension of the COSIP financing mechanism to the Web. With consumers' low willingness to pay for short formats (less than 40 percent in Western countries), webisode business models will likely remain advertising-based, and as such, will benefit from the shift of online marketing spending to video in an otherwise challenging advertising market.

A majority of consumers envision using connected services at the expense of traditional TV channels

Connected devices could also accelerate the development of short formats born on the Web. Both amateur and professional webisodes have already attracted sizable audiences online. For example, *Fred Figglehorn*, a semi-professional production, was the first Web series to top one million subscribers on YouTube, giving birth to a Nickelodeon movie in 2010. *Shankaboot*, the first Web series in Arabic, generated more than one million views since it launched in March 2010. An award winner at the *Cinéma Tous Écrans festival* in Geneva in November 2010, this dramatic comedy addresses societal themes that





features for the "connected gamers" we surveyed.

As the number of connected devices multiplies, gaming frequency tends to increase –more than 60% of the occasional players surveyed said they were likely to further increase their game playing. Like smartphones and the Internet did in the past, tablets and smart TVs could further extend the reach of casual and social gaming in the future. Yet a generation gap will

Video games: Supporting the expansion of casual gaming

Video games are fertile ground for creating innovative connected experiences. Today, major subscription-based online blockbusters such as *World of Warcraft* coexist with free games and low-priced apps. High-production-value experiences combining entertainment and cultural ambitions have also emerged. For example, *World of Temasek*, a nonfiction, massively multiplayer game funded by the Singapore National Heritage Board and playable through a Web browser, allows audiences of all ages to discover ancient civilizations while interacting with a community.

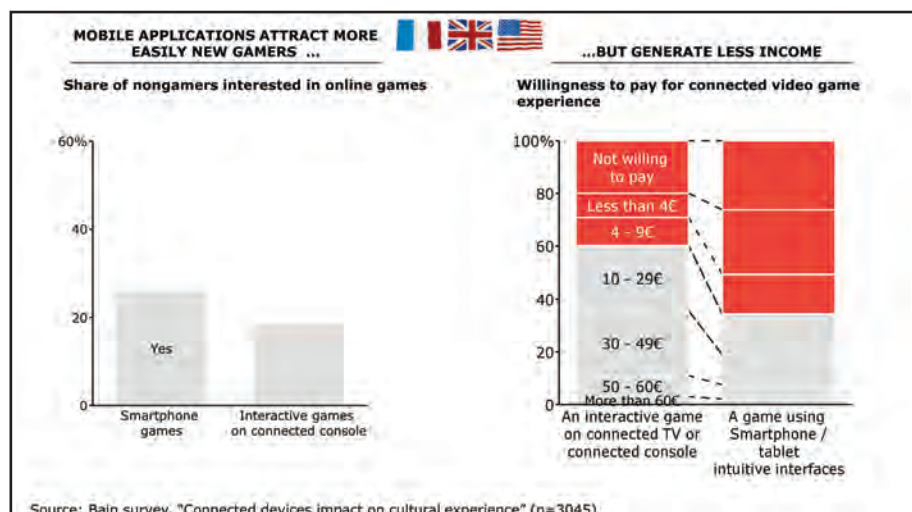
With the increasing processing power built into connected devices, such experiences are now accessible to broad audiences, with no need for dedicated hardware.

At the same time, connected devices are already widespread among both occasional and regular gamers –40 percent of those surveyed in Western markets use a connected console or terminal. Connectivity and natural interfaces represent the most essential

remain among gamers: while almost 60 percent of those under age 35 see themselves playing more on connected devices, fewer than 25 percent of those older than 55 say the same thing.

60% of the occasional gamers surveyed are likely to increase their gaming consumption thanks to connected devices

The result of that expansion toward the casual gamer is a new set of opportunities and challenges for the video game industry. New distribution platforms and business models have emerged. An "independent scene" that had gone extinct at the end of the 1990s is reappearing.



Cloud-based platforms such as OnLive and Gaikai promise to bring to core gaming experiences the user-friendliness and massive reach that browser-based platforms and social networks have provided to casual gaming.

Such developments are injecting a healthy dose of creativity into the industry as a whole, but they also present strategic challenges for established players. Incumbents' responses to new players and models will be critical. The rise of the casual gaming segment has also brought with it lower prices for smartphones and tablet apps. As the total value of the market could ultimately erode under pricing pressure, expanding its reach remains critical. Crucial to the success of traditional publishers will be to somehow adopt lower-cost production and distribution models, while developing ever-richer gaming experiences.

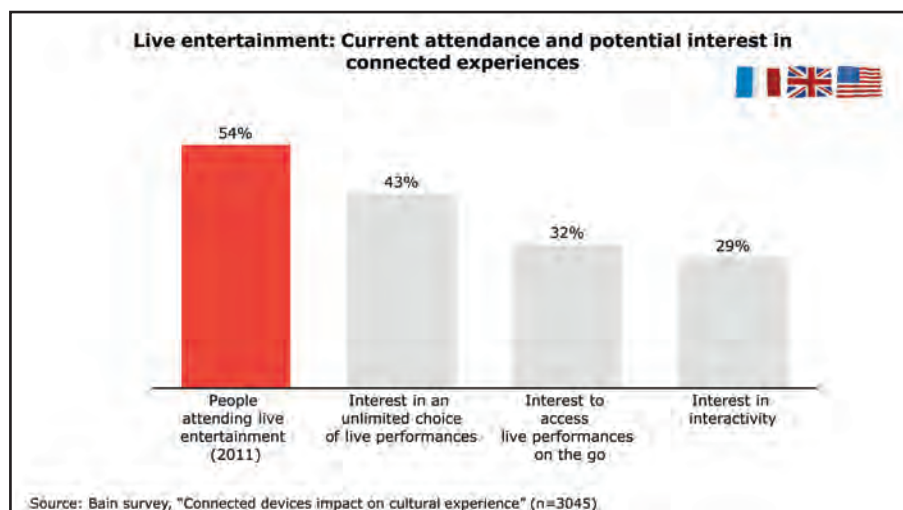
Live entertainment: Reaching broader audiences

Almost 50 percent of the consumers surveyed in the US and Europe say they only rarely experience live entertainment today. While important barriers to attendance exist, especially in terms of price, the media also offers limited choice. That's because many live performances attract only small, niche audiences.

Connected devices can overcome such hurdles. Online services like SFR Live, Grandcrew and YouTube Live can offer a vast choice of direct and recorded events without taking up scarce programming time, as with traditional broadcasting. One mass-market example: Close to 10 million people watched U2's concert on YouTube Live in 2009. Such connected experiences can be enriched through multiple

camera angles and live social networking, but choice remains the primary draw. More than 40 percent of surveyed Western consumers are interested in an unlimited number of events to choose from, while fewer than 30 percent are interested in more interactive and social experiences.

**Total video games
market value could
ultimately erode
under pricing
pressure**



Connected live experiences mainly attract existing audiences, however. Fewer than one in five nonusers say they intend to modify their event attendance – both online and offline – as a result of being able to access content on connected devices. Moreover, two-thirds of interested consumers are not willing to pay for such experiences, and might only pay if they are priced at a substantial discount. Presenters will generate meaningful revenues only through advertising and sponsorships for shows with mass-market appeal, such as deals that span the physical and online worlds. For niche content, the main revenue source remains consumers or public subsidies. Presenters of these live events will have to offer highly discounted prices to create value from connected audiences.

Two-thirds of interested consumers are not willing to pay for a connected live experience unless at a substantial discount

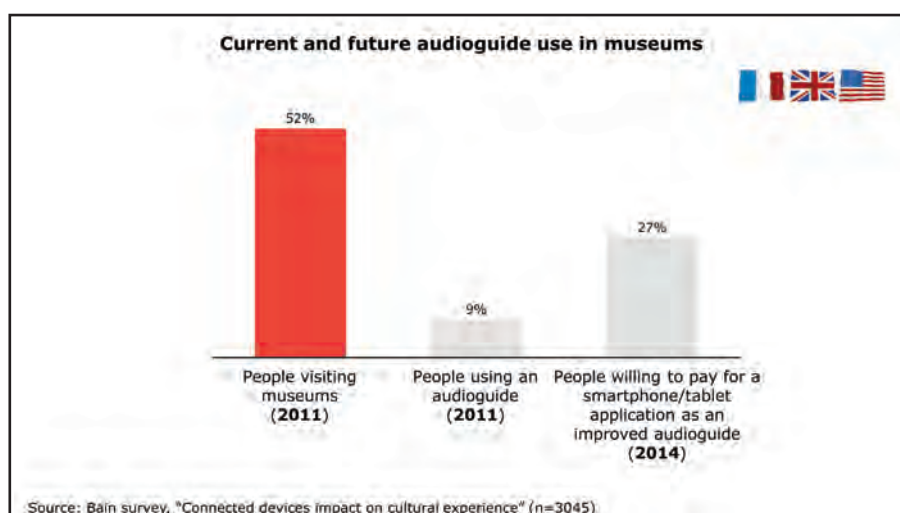
Visual arts and heritage: Enhancing the cultural experience

The cultural category of visual arts and heritage attracts a small audience today. Almost half of the European and American survey respondents say they never go to museums. In light of that reality, cultural institutions must constantly innovate and reach out to the public. Connected formats taking advantage of interactivity, portability, augmented reality and 3D can enhance the traditional visit by adding text, video and audio—and even virtual displays on top of physical displays—allowing the visitor to have a more active role in the experience.

Applications like the one built for the Monet exhibition at the Grand Palais in Paris in 2010 provide in-depth explanations of artworks, replacing traditional audioguides. Others bring

together real and virtual exhibits, like the work of artists Sander Veenhof and Mark Skwarek at New York City's Museum of Modern Art in October 2010. Some organizers transform a city into a virtual exhibition—the StreetMuseum application by the London Museum, for example, overlays ancient photographs onto the modern city in augmented reality and the virtual exhibition of Anish Kapoor's work was spread across Paris during the Monumenta 2011

exhibition. Thanks to connected television sets, such experiences can now be re-created in the living room.



Seventeen of the most prestigious museums in the world can be visited in 3D through Google Art Project—including St. Petersburg’s Hermitage, London’s National Gallery and the Chateau de Versailles outside Paris.

Such possibilities generate interest for close to 60 percent of the individuals we surveyed. The most compelling experiences for respondents include augmented reality applications that allow a visitor to explore a physical site’s cultural riches through an additional layer of sensory experience. Organized by interest level, the applications replace audioguides and enhance both museum visits and virtual visits from home.

However, connected devices appear to have only moderate potential to increase the number of visitors, either virtual or physical. Even though nearly 30 percent of respondents

plan to visit more frequently due to connected content, three-quarters of this segment is already a regular visitor. Fewer than 18 percent of nonvisitors intend to allocate more time to cultural institutions due to connected experiences.

**25 to 30%
of respondents
are willing to pay
for an application
that provides
a connected
Museum visit**

Connected devices can nevertheless have a material impact on cultural institutions. About 25 percent to 30 percent of respondents say they are willing to pay for an application that provides an enhanced “connected visit”—significantly more than the 5 percent to 10 percent who are willing to pay for an audioguide today. Similarly, 20 percent to 25 percent of surveyed individuals are willing to pay for virtual visits from home. While potential prices for these services are lower than prices for a traditional experience, these examples indicate that an opportunity to enhance and complement a visitor’s experience exists.



Adapting business models

The expansion of content's breadth and depth that began with the rise of the Internet will continue with connected devices and services. As players address existing constraints involving bandwidth and distribution, connected services could provide widespread access to a wealth of experiences. If "long tail" content, targeting a small number of users, is less likely to get a significantly larger exposure, "mid-tail" content could reach broader audiences through connected devices. New sources of content recommendations could also force a rebalancing, just as search engines, data-mining software and online social communities have already demonstrated an ability to spread targeted content virally to mass audiences. This evolution could challenge the model of historical thematic channels, whose value proposition will face competition from connected services with unlimited choice, unless they decide to re-invent themselves and adopt the same principles and technologies.

However, we expect several issues will strongly temper the expected benefits of connected content.

First, sustainable business models remain to be developed for many connected experiences. Given the results of our survey and the current macroeconomic environment, it appears unlikely that connected services will significantly increase the size of markets, both in terms of consumer and advertiser spending. The emerging strategies of both new entrants and established players suggest greater diversification among business models in the future—combining advertising, subscription, fee-for-service and hybrid "freemium" models into a diversified revenue base. The launch in 2010 and 2011 of new offerings by iconic players like Netflix and Hulu in the United States illustrates well this quest for new equilibriums.

**Connected services
are unlikely
to expand
the addressable
market dramatically**

Second, effective levels of content depth and diversity may depend on the characteristics that emerge from the competition among leading content platforms. Today, traditional brands and new entrants, software and hardware players, "open" Internet and proprietary application ecosystems are all battling to become the consumer's preferred source of information. While the fragmentation that results can offer great diversity, it can also lead to an excessive balkanization of distribution channels that ultimately hinders the industry's development. In addition, content players, telecommunications companies and technology platforms differ across many countries, so distinct regional configurations of players are likely to emerge. For example, while new entrants like Netflix were able to capture new users in the United States at the expense of historic TV channels, in France they will face a different regulatory framework and non-linear user patterns, largely pre-empted by ISPs or historical channels. In any case, successful markets will strike a balance between consolidation and diversity, and they will share a few core features: attractive content, intuitive interfaces and a rewarding customer experience.



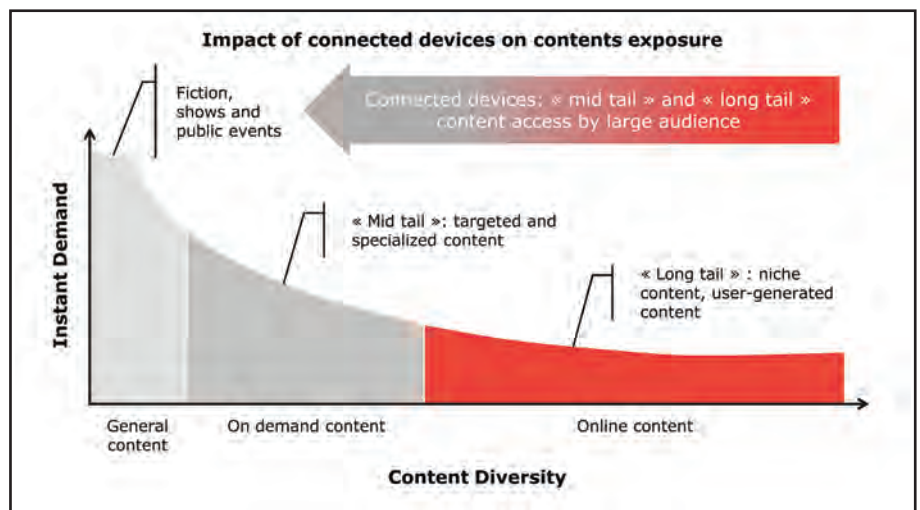
More than ever, organizations face an opportunity to invest in ambitious content that burnishes their brands, while experimenting with compelling new business models.

Finally, preserving the delicate economic equilibrium on which content creation relies could represent a challenge for the whole industry. In Europe for example, while the European Audiovisual Media Services Directive (AVMSD) has enlarged the scope of regulation to on-demand services, crucial questions remain open: Which

***Balkanized
distribution channels
would ultimately
hinder the industry***

offers and local content promotion strategies can be put in place in an increasingly demand-driven connected environment? How should a highly competitive and fairly recent business like digital video participate in the financing of new content? What are the implications for other types of players like ISP or content aggregation giants like Facebook or Google?

Whatever the outcome, the trend toward greater connectivity is sure to spark innovation across the media, entertainment and cultural landscape.



Notes on Methodology

Bain & Company conducted an online survey with a panel of 3,045 people over the age of 18, including 601 people in France, 607 people in the UK and 601 people in the US who are representative of national populations according to gender, age, region of origin, and broadband penetration, as well as 621 people in urban India and 615 people in urban China who are representative of the urban populations according to gender, age and broadband Internet penetration. The calculation of future connected device penetration was based on purchasing intentions and was discounted according to the considered time frame.

Notes on main exhibits follow:

Connected devices and broadband penetration (2014): Percent of people for tablets; percent of households for connected TV, consoles and high-speed Internet; connected households: households having at least one connected TV, console or tablet. Broadband penetration calculations are based on Ovum projections of broadband subscribers and Euromonitor projections of number of households. In India and China, a Bain estimate has been used to assess share of broadband subscribers in urban regions. *2008-2011 Free-time evolution by activities*: hours per week for recurring activities (excluding one-time activities like museum visits and concerts). *Willingness to increase time spent on cultural activities thanks to connected experiences*: Video example—small users: 0-3 hours per week; occasional users: 4-7 hours per week; regular users: more than 7 hours per week; Visual Arts / Heritage example—occasional visitors: a few visits a year; regular visitors: at least a few visits per month. *Evolution of video content recommenders*: percent of responses (multiple choice questions) of surveyed people reporting use of video content; offline recommenders: advice from salespeople, critics in newspapers, radio and TV; online recommenders gaining influence: percent of surveyed people interested in at least one connected audiovisual experience. *Willingness to pay for “webisodes”*: percent of surveyed people with interest in at least one experience of connected video-game. *Willingness to increase time spent on video games thanks to connected experiences*: percent of respondents; Nongamers: 0 hours per week; occasional gamers: 1-7 hours per week; regular gamers: more than 7 hours per week. *Willingness to pay for connected video games experiences*: percent of surveyed people with interest in at least one of connected gaming experiences.

Notes on appendix exhibits follow:

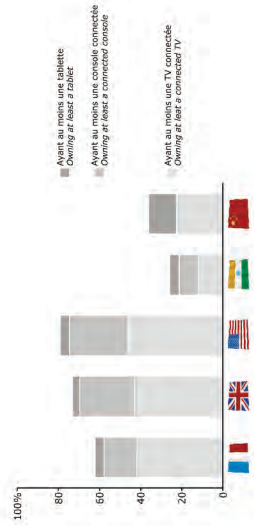
Connected households by 2014: percent of households. *Free time evolution by country (2008-2011)*: in hours per week for recurring activities. *Connected devices impact on cultural activities spent time*: Willingness to increase time allocated to cultural activities thanks to connected devices. *Ability to recruit new users of culture*: percent of surveyed people willing to increase time allocated to cultural activities, small: 0-3 hours per week (video content), medium: 0-7 hours per week (video games) and 4-7 hours per week (video content); high: more than 7 hours per week; Museums / Architecture / Live entertainment –medium: some visits per year, high: at least a few visits per month. *Today’s recommenders by cultural experience*: percent of responses (multiple choice questions). *Future willingness to pay by cultural experience*: percent of surveyed people within those interested in at least one connected experience. *Video games: Smartphone and Connected console key features*: percent of surveyed players using the mentioned device. *Video Games: past spent time evolution (2008-2011)*: High augmentation/diminution: Plus/minus 3 hours of games per week, small augmentation/diminution: plus/minus 0-3 hours of video games per week.

External sources:

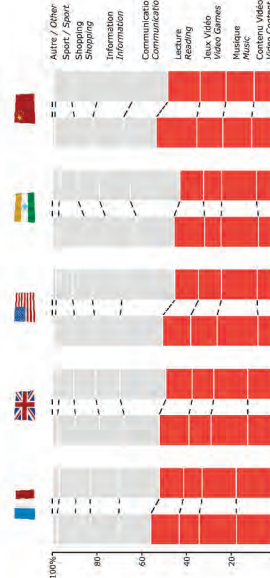
Broadband and devices penetration: Ovum ; IDC; Gartner; WBIS ; Internet world stat ; Euromonitor. www.netflix.com. www.spotify.com. www.apple.com/fr/itunes/. www.amazon.com. Smartphone application “Jardins Versailles”: www.orange.com. www.lasifm.fr. www.spotify.com. www.pandora.com. Webisode Fred Figgleshorn: www.fredfiggleshorn.com, YouTube. Webisode Shankaboot: www.shankaboot.com, BBC. Webisode Grey’s Anatomy: abc.go.com/shows/greys-anatomy. YouTube Next: www.youtube.com. French Web COSIP: Decree No. 2011-364 from 1 April 2011 and published in the “Journal officiel” on 3 April 2011. Cloud-based platforms: www.onlive.com and www.gaikai.com. World of Temasek: www.worldoftemasek.com. World of Warcraft: <http://eu.battle.net/wow/fr/>. SFR Live: www.live-concert.sfr.fr/. www.grandcrew.com. YouTube Live: www.youtube.com. U2 on YouTube Live in 2009: YouTube. Smartphone application for the 2010 Exhibition Monet at the Grand Palais in Paris: www.rmn.fr. 2010 virtual exhibition by Sander Veenhof and Mark Skwarek at MoMA in New York: www.sndrv.nl/moma. Application of the London Street Museum: www.museumoflondon.org.uk. Virtual exhibition of works by Anish Kapoor in Paris during Monumenta 2011: www.monumenta.com. www.googleartproject.com. www.hulu.com.

Annexe : résultats de l'étude consommateurs / Appendix: survey results

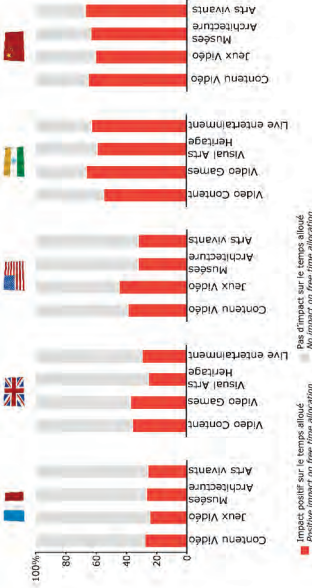
Foyers connectés à horizon 2014
Connected households by 2014



Evolution du temps libre par pays (2008-2011)
Free time evolution by country (2008-2011)



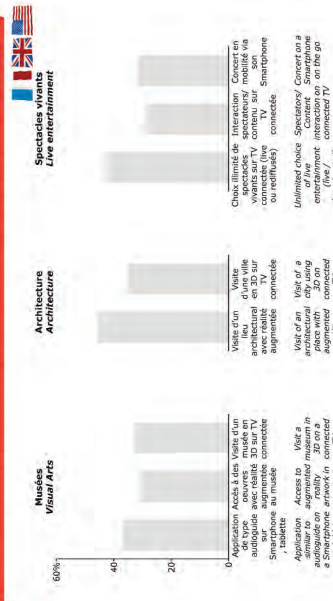
Impact des terminaux connectés sur la consommation de culture
Connected devices impact on time spent on cultural activities



Intérêt exprimé par expérience culturelle connectée (1/2)
Interest of respondents by connected cultural experience (1/2)



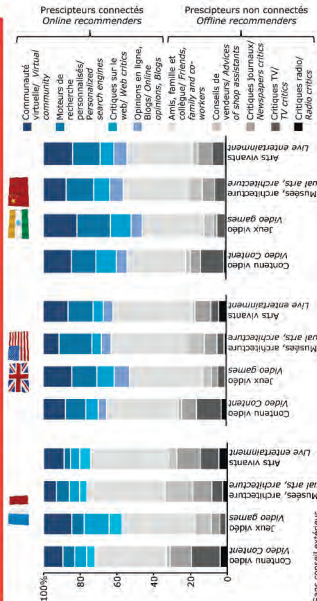
Intérêt exprimé par expérience culturelle connectée (2/2)
Interest of respondents by connected cultural experience (2/2)



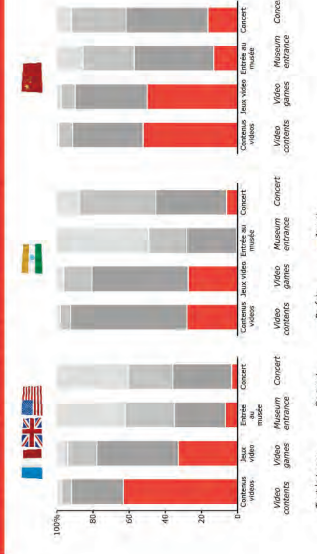
Impact des terminaux connectés sur le lieu de consommation
Connected device impact on the cultural experience location



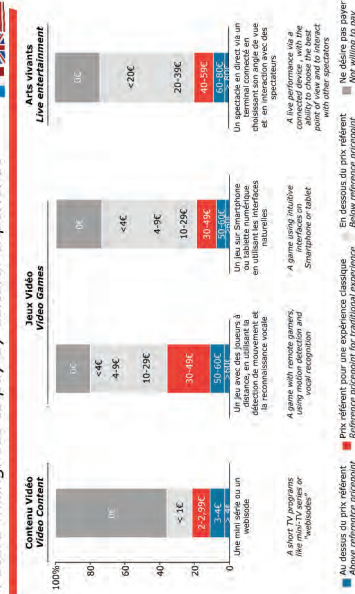
Prescripteurs actuels par type d'expérience culturelle
Today's recommenders by cultural experience



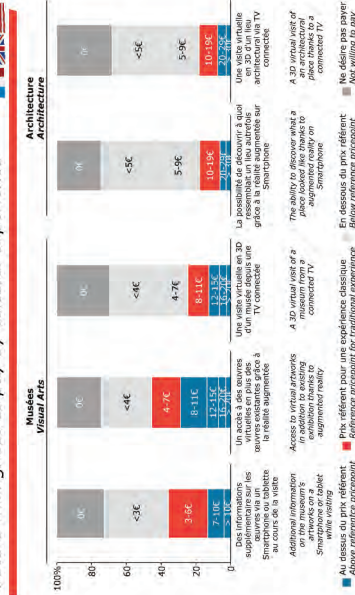
Volonté de payer actuelle par type d'expérience culturelle
Today's willingness to pay by cultural experience



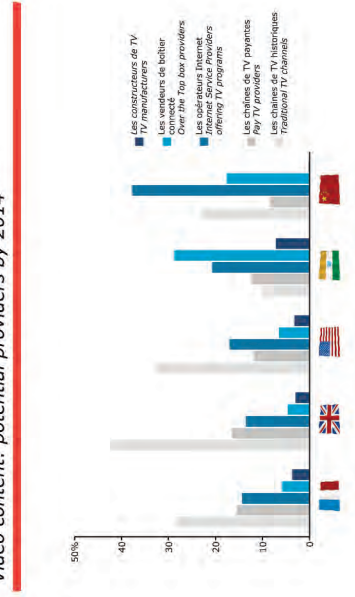
Volonté de payer future par type d'expérience culturelle Future willingness to pay by cultural experience



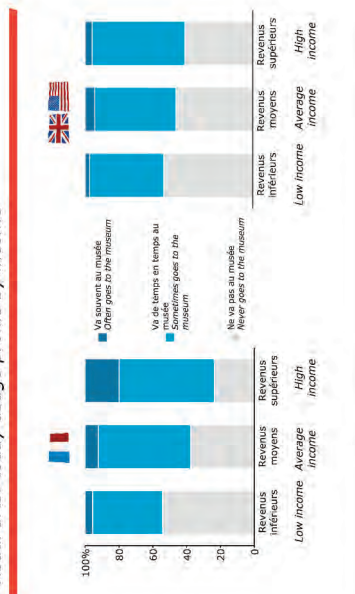
Volonté de payer future par type d'expérience culturelle Future willingness to pay by cultural experience



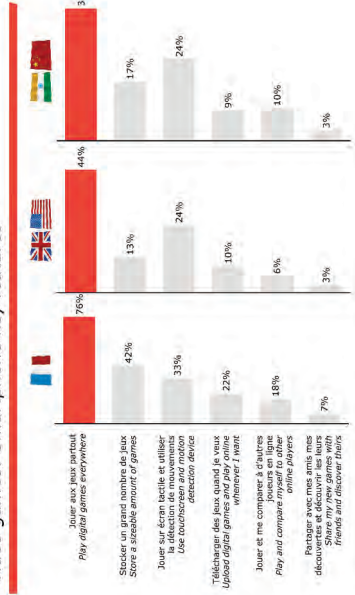
Contenu vidéo: fournisseurs potentiels en 2014 Video content: potential providers by 2014



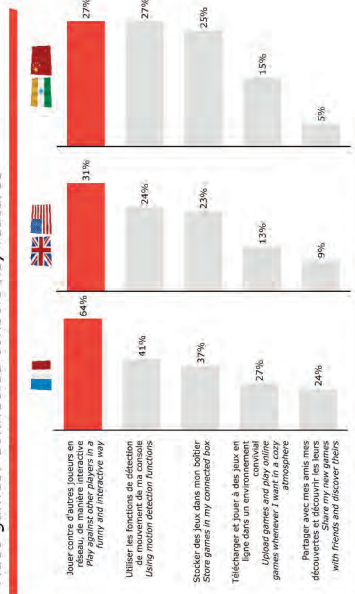
Musées: profil de consommation actuelle par revenus Visual arts: today usage profile by income



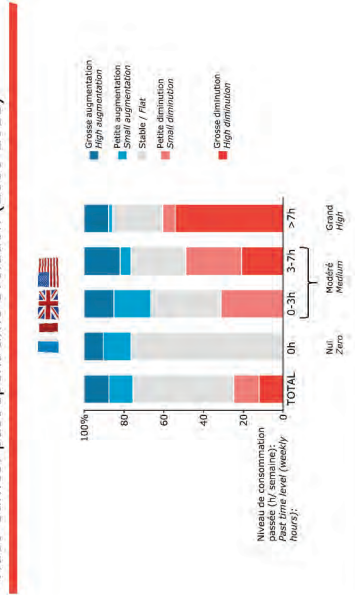
Jeux vidéos: fonctions préférées sur Smartphone Video games: Smartphone key features



Jeux vidéos: fonctions préférées sur consoles connectées Video games: Connected console key features



Jeux vidéos: évolution du temps passé (2008-2011) Video Games: past spent time evolution (2008-2011)



Source: Etude Bain "Impact des terminaux connectés sur l'expérience culturelle" (n=3045) / Sources: Bain survey, "Connected devices impact on cultural experience" (n=3045)