

pqmedia Global Consumer Media Usage & Exposure Forecast 2018-22

6th Edition in PQ Media's Global Media & Technology Series, the Industry's Worldwide Performance Benchmark Since 2013 Report 2 of 3 in Series

Digital Media

- *Internet Media
- *Mobile Media
- *Other Digital Media

Traditional Media

- *Live Television
- *Physical Film & Video
- *Physical Recorded Music
- *Print Books & Directories
- *Print News & Information
- *Print Periodicals & Serials
- *Terrestrial Radio
- *Traditional OOH

Demo Breakouts

- *Gender
- *Generations
- -i-Gen
- -Millennials
- -GenX
- -Boomers
- -Great Gen



Top 20 Global Markets

*Japan *United States

*Argentina *Australia

*Netherlands

*Brazil

*Canada

*Russia *China

*France

*Germany *India

*Italy

*Mexico

*Poland

*South Africa

*South Korea

*Spain

*Taiwan

*United Kingdom

- Most credible, consistent & actionable media consumption intelligence covering 2012-22 period, with 2017 actuals, 2018 pacing, 2018-22 forecasts
- Only primary source delivering data & analyses tracking all consumer media usage by platform worldwide
- Exclusive data, insights & projections by digital & traditional sectors, platforms, digital channels and shift from traditional to digital media
- Original industry definitions & segmentation, current market sizing & growth projections, key growth drivers & emerging challenges

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Global Consumer Media Usage & Exposure Forecast 2018-22™

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Global Consumer Media Usage & Exposure Forecast 2018-22 Key Takeaways



Global Media Usage & Exposure Results 2017 & 2018; Forecast 2019

Overall Media Usage & Exposure

- Global overall consumer media usage & exposure rose 1.7% in 2017 to 49.86 hours per week (HPW)
- Total usage by males increased 1.9% in 2017 at 50.13 HPW, female usage grew 1.5% to 50.10 HPW
- Consumer media usage & exposure by generations in 2017 was as follows:
 - Greatest Generation overall usage rose 4.1% to 78.87 HPW
 - Baby Boomer overall consumption increased 2.3% to 62.90 HPW
 - GenX overall media usage & exposure expanded 2% to 51.61 HPW
 - Millennial overall usage grew 2.1% to 44.00 HPW
 - i-Gen overall media consumption rose 1.5% to 26.83 HPW
 - m-Gen overall usage & exposure increased 26.1% to 11.02 HPW
- Overall consumer media usage & exposure is on pace to increase 2.1% in 2018 to 50.89 HPW
- Global overall media usage & exposure is projected to rise 1.5% in 2019 and at a 1.8% CAGR from 2017-22

Traditional Media Usage & Exposure

- Global traditional consumer media usage & exposure fell 0.5% in 2017 to 38.16 hours per week
- Traditional consumer media usage & exposure growth is on pace to be flat 2018 to 38.17 HPW
- Global traditional media usage & exposure is projected to decline 0.7% in 2019

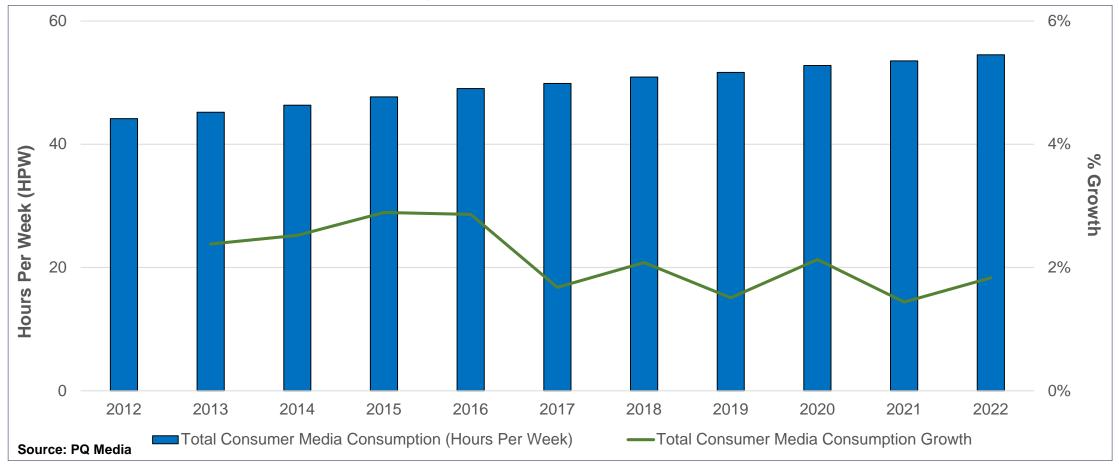
Digital Media Usage & Exposure

- Global digital consumer media usage & exposure rose 9.7% in 2017 to 11.70 hours per week, representing 23.5% of overall usage
- Digital consumer media usage & exposure is on pace to increase 8.8% in 2018 to 12.73 HPW
- Global digital media usage & exposure is projected to rise 8.2% in 2019



Global Total Consumer Media Usage & Exposure Rose 1.7% in 2017 to 49.86 Hours Per Week;

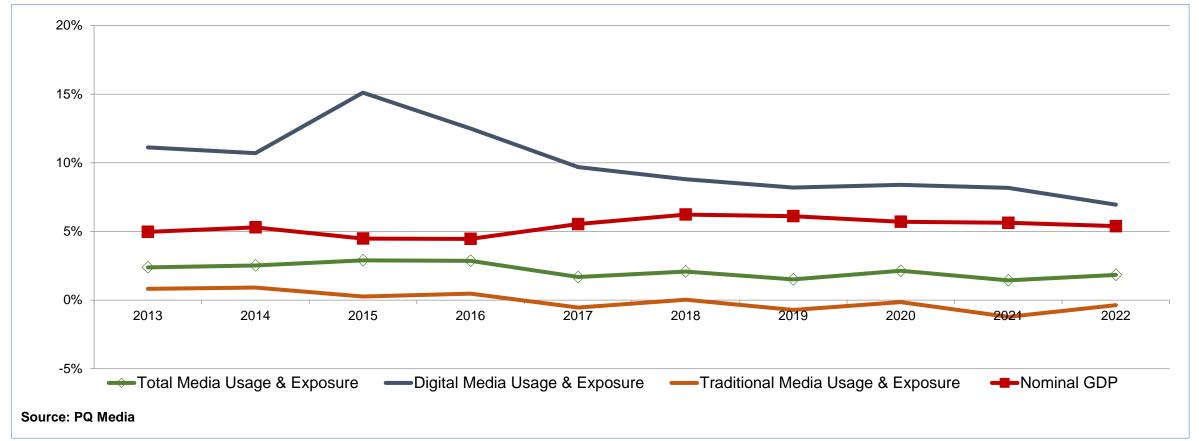
PQ Media's Global Total Consumer Media Usage & Exposure & Growth, 2012-2022





Global Overall Media Usage & Exposure to Underperform GDP Growth by 2-3 Pts; Traditional Usage Underperform Economic Growth by 4-6 Pts; Digital Usage Outpaces by 2-3 Pts.

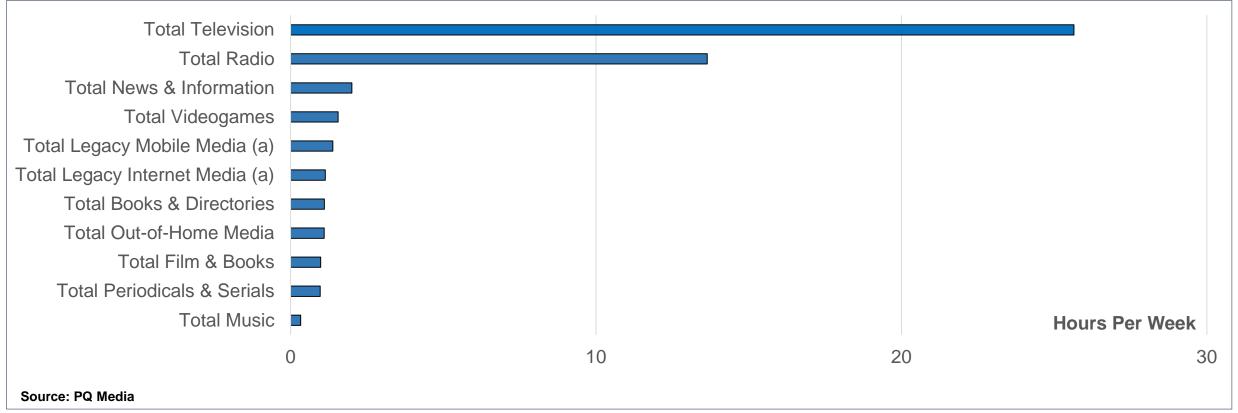
PQ Media's Consumer Media Usage & Exposure by Overall, Traditional, Digital & Compared Against GDP 2013-2022





Consumers Use Television More than Any Other Media Silo at 25.6 Hours Per Week in 2017 Legacy Digital Media, Content Only Available on Digital Devices, Reached 2.5 HPW

PQ Media's Total Global Media Usage & Exposure by Media Silos in 2017



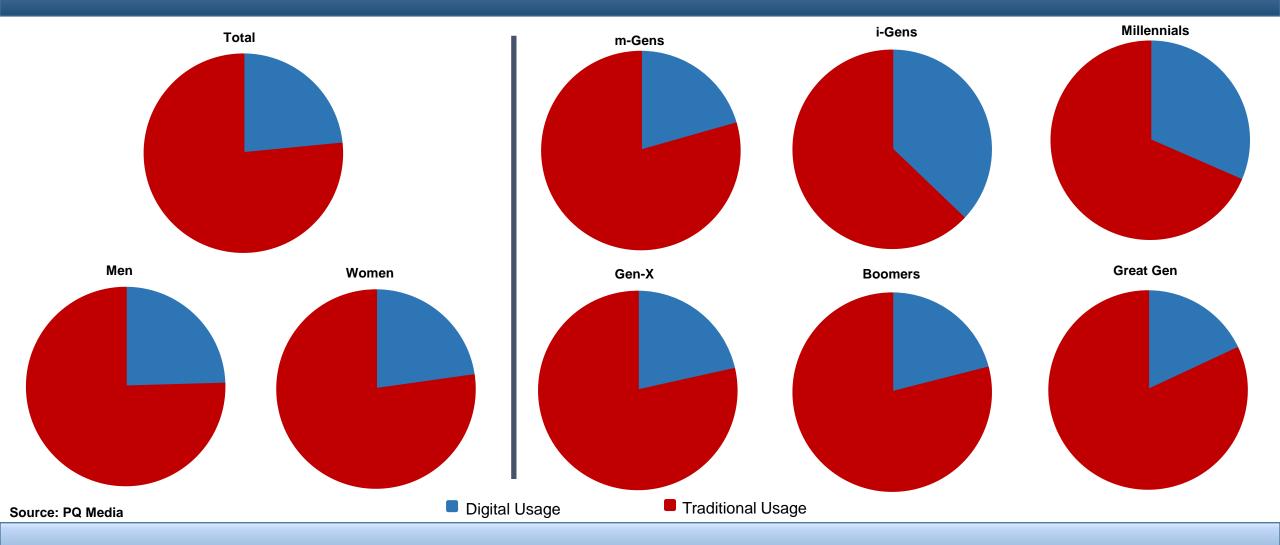
(a) Legacy Internet & Mobile Media are specific to channels and sites that are exclusively digital, such as online search and mobile marketing apps

The digital brand extension of traditional media companies, such as videos placed on ESPN.com & ESPN Mobile, are included in the traditional media platform (e.g., TV).

Additionally, all forms of the media platform, including pure-play digital companies are included in that platform, such as Huffington Post in News & Information



Digital Represents 23.5% Share of Total Usage in Global in 2017; Men Use Digital More than Women; I-Gen Highest Digital Users at 37.2% Share

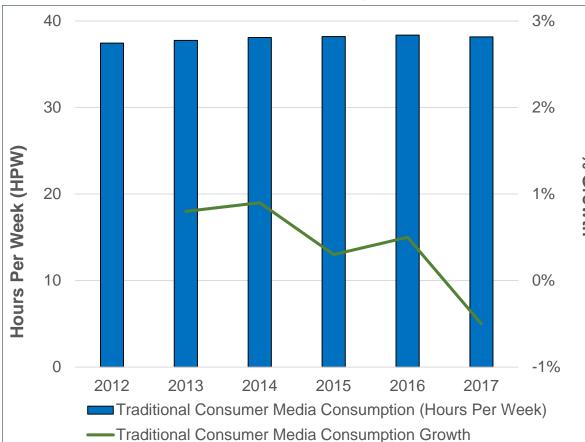




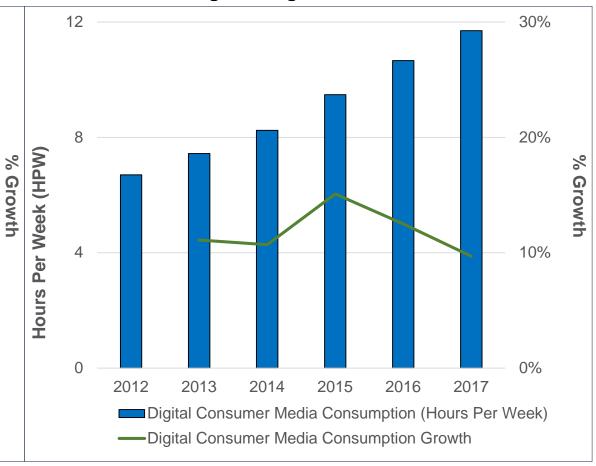
Global Traditional Media Usage & Exposure Fell 0.5% in 2017 to 38.16 Hours Per Week; Global Digital Consumer Media Usage & Exposure Rose 9.7% in 2017 to 11.70 Hours Per Week

PQ Media's Global Traditional Media Usage & Growth, 2012-17





PQ Media's Global Digital Usage & Growth, 2012-17

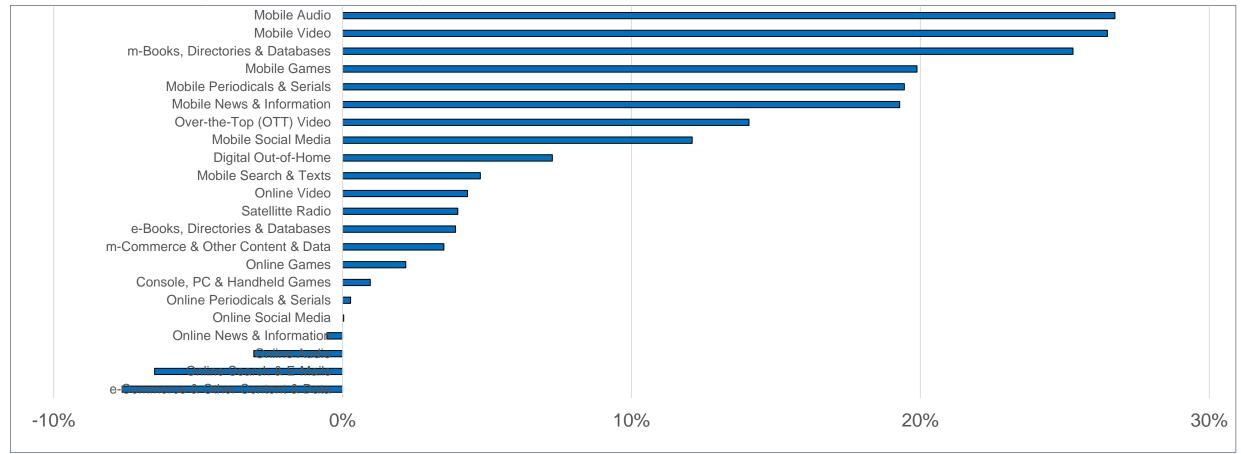




Source: PQ Media

Mobile Audio Fastest Growing Digital Media Channel for Usage – Up 27% in 2017; PC Usage for e-Commerce, Search, E-Mail & News & Info Fell As Consumers Switch to Mobile

Growth of Global Digital Media Channel Usage in 2017



Source: PQ Media



Japan Uses Media Most, Brazil Fastest-Growing Market, Australia Leads in Digital Media Share US Ranked 5th in Total Use, 13th Fastest-Growing Market and 4th in Digital Share of Overall Use

Total Media Usage & Exposure								
2017 Usage & Exposure	2017 vs. 2016 Growth	2017 Share of Digital Media						
Japan	China	Australia						
Germany	India	South Korea						
United Kingdom	Italy	Netherlands						
Canada	Russia	United States						
Netherlands	Netherlands	United Kingdom						

Source: PQ Media

US ranked 6th in overall media consumption and 20th in growth

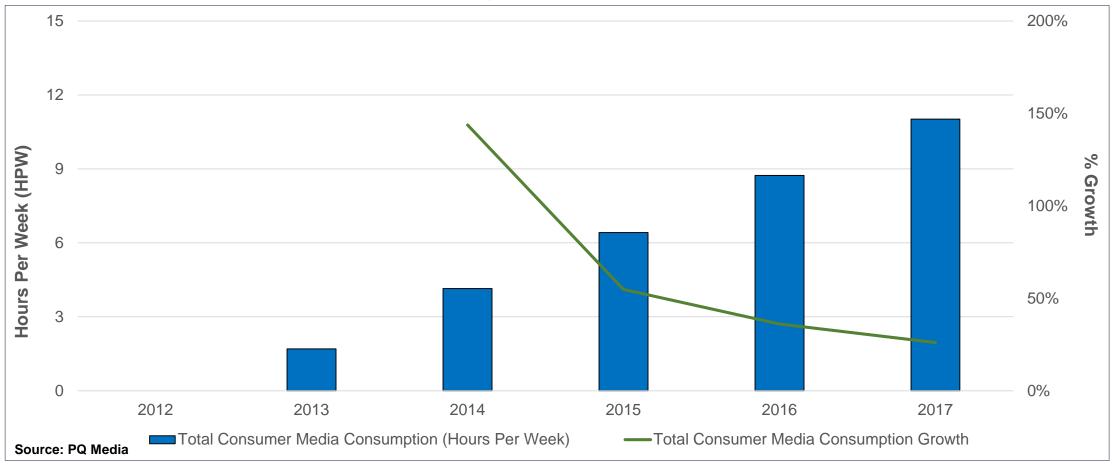


Global Consumer Media Usage & Exposure Forecast 2018-22 First Ever Analysis of m-Gen (born after 2013) Media Consumption



m-Gens Total Consumer Media Usage & Exposure Rose 26.1% in 2017 to 11.02 Hours Per Week

PQ Media's Global m-Gen Total Consumer Media Usage & Exposure & Growth, 2012-2017



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Global Consumer Media Usage & Exposure Forecast 2018-22 Segmentation & Definitions



Global Consumer Digital & Traditional Media Usage: The average number of hours per week an end user views, reads, accesses, engages, interacts with or listens to digital or traditional media content, advertising or services for personal entertainment or informational purposes, or as a result of consumer brand advertising or marketing through various media platforms and channels.

PQ Media's data and analysis included in this report is specific to the average total time an individual spends each week with media content developed primarily for consumer/personal use, as opposed to business/employee use. While consumption primarily occurs in the home, digital media devices have increasingly allowed consumers to access content in many other indoor and outdoor locations. PQ Media's methodology, algorithms, data collection and analysis for this Report were based on proprietary research, experiences and exclusive input from industry leaders, which resulted in a unique approach to provide our clients with the most comprehensive, consistent and actionable global media consumption datasets available.

To be consistent and to accurately reflect consumer usage of digital and traditional media by platform, channel and country worldwide, several original techniques were used. For example, we included the entire population, or universe, of end users for all ages (0+) worldwide, contrasting with the 13+ or 19+ populations, or consumers of a particular medium used in other media consumption research. As a result, PQ Media was able to distinguish between media usage of developed and emerging countries, as well as among the five major cultural generations of the population. Additionally, our final data indicates consumer media usage in average hours per week, compared with daily or annually. Input from our industry leader panel revealed that this view is the most actionable media usage metric because weekly results are most often used by major advertisers and marketers to plan and buy media.

PQ Media's methodology and data differ significantly from other sources that collect and publish media usage data in the following ways: using certain technologies to capture time spent with media for a day; performing simple online surveys based on usage recall; aggregating research published by other sources to create a median outcome; only counting end users of a specific media platform or channel, which often results in inflated figures for media consumption.



Digital Media Usage Platforms & Channels

Internet Media Usage: Consumers accessing digital content and data (C&D) that was developed using the appropriate internet browser and coding configurations, such as html. Internet media C&D is most often, but not exclusively, consumed on computers that are tethered through access connections like cable modems, DSL/T-Lines, and dial-up, or password protected networks associated with the tethered device. Additionally, a majority of internet media C&D is consumed in enclosed locations like homes, schools and businesses. It also includes any materials that are downloaded onto a PC, and then are transferred to an online devices, such music and books.

eBooks, Directories & Databases: Also known as online long-form text C&D, this content is accessed and read by consumers in multiple viewings, at times related to a specific vertical, such as cooking. The C&D can be released as a one-time product, such as a book, an annual update with new & revised information, such as yellow page listings, or updated more regularly due to the vertical's seasonality, such as professional sports databases of the league's player performance to date. It also includes online downloads of long-form text C&D that is download on PCs, but transferred to a wireless device for reading.

eCommerce & Other Online C&D: Time spent by consumers on retail websites, including any customer reviews, with online catalogs, paying bills or checking statements online, miscellaneous websites, such as online dating services, and any emails that are not produced daily or linked to a specific brand.

Online Audio: Content developed for listening online, including music downloads that can be transferred to another device, such as an mp3 player; listening to songs on a PC or laptop; tuning into on online radio station, including digital extensions of terrestrial and satellite radio stations and networks; and any audio podcasts on news and information sites, such as interviews.

Online Games: Consumers playing videogames, casual games and games of chance online, including the massive multi-player online game (MMOG) extensions of console, PC and handheld videogames, as well as games developed exclusively for the internet. These games can be played individually, with friends, or with multi-player functionality that includes microtransaction components that provides advantages to players for a fee.

Online News & Information: Consumers reading text-formatted digital content and data that is published online in real time, usually on a daily basis, updated when necessary, and can include news, weather, sports, public interest, analysis, opinions, expert reviews, daily e-mail newsletters, and theme-related topics, such as finance, healthcare, entertainment, travel and technology. It also includes time spent by consumers reading the online archives of the articles after the subject of the story is no longer a real-time issue.



Internet Media Usage (cont.)

Online Periodicals & Serials: Also known as online short-form text C&D, it differs from online news & information in that the content and data are specific to a vertical market (e.g., sports, women) and its consumers are aware that is usually posted online on a designated schedule, such as weekly, bi-weekly, monthly or quarterly, often corresponding with the distribution of an accompanying print product, such as a magazine, newsletter, shopper or trader. Real-time updates might be available, particularly when the target audience expects coverage of an important event in the vertical.

Online Search & eMail: Also known as lead generation and online business-to-consumer promotions, search and email include time spent by consumers online to find products and services, contact and location information, and/or reviews of products and services. Also included are search engines, product/service listings by vertical, and promotional and custom content distributed via email.

Online Social Media: Consumer-generated content posted online, often to be shared within a certain community of friends and colleagues, or posted by brands to loyal or potentially new customers. It also includes using any video teleconferencing service to connect with a social media community. It does not include any content originally posted to an online social media site, which has gone viral after being highlighted by a third-party source. It also does not include social media posted or viewed using a wireless device, which is included in the Mobile Social Media category.

Online Video: Accessing, viewing and/or downloading motion-based content including repurposed TV programs, news, sports, films, trailers, webisodes, video podcasts, and consumer-generated video that goes viral after being highlighted by a social media website or other third-party publisher.



Mobile Media Usage: Consumers accessing digital content and data that was developed using the appropriate mobile browser and coding configurations, such as WAP 2.0. Mobile media C&D is most, but not exclusively, consumed using telecommunications data plans or external WiFi networks, although consumers can use the networks associated with tethered devices referenced in internet media usage. Mobile media C&D can be consumed in any location, but is most often associated with accessing the materials while outside the home, such as while commuting, near or in local retail outlets and close to entertainment establishments, like bars and sporting arenas. It does not include accessing internet C&D using wireless devices, unless the material has been reconfigured for wireless devices, such as gaming apps.

mBooks, Directories & Databases: Long-form text C&D directly downloaded onto wireless devices and read by consumers using their wireless technology. (see eBooks, directories and databases for examples of long-form text C&D)

mCommerce & Other Mobile C&D: Mobile commerce, also known as mCommerce or mWallet, includes time spent by consumers on their wireless devices to pay bills, shop, and to purchase products or services, including on-site at retailers, accessing content from retailers formatted specifically for wireless devices, such as proximity services or brand-related texts, using mobile apps not associated with games or the three text categories, and any GPS functionality included on personal mobile devices

Mobile Audio: Time spent listening to audio content developed specifically for wireless devices, such as ringtones, downloaded directly on wireless handheld devices, or listening to various radio programming and audio podcasts developed for wireless devices.

Mobile Games & Applications (Apps): Consumers playing various games developed for wireless devices, often through gaming apps or the mobile extensions developed by console, PC and handheld videogame publishers for the smaller screens of personal mobile devices.

Mobile News & Information: Consumers reading digital real-time news and informational text, content or data formatted specifically for wireless devices, often through a subscription service, such as the android app developed by a newspaper publisher.

Mobile Periodicals & Serials: Time spent by consumers with short-form text C&D formatted specifically for wireless devices, often through a subscription service, such as a iPhone app developed by a magazine publisher.

Mobile Search & Texts: Consumers accessing lead generation tools that are designed for wireless devices, such as smartphones, often used near the point-of-decision or purchase. Also included in this mobile usage channel is time spent by consumers with non-social texts, primarily from brands attempting to reach individuals with text-based promotions.



Mobile Media Usage (cont.)

Mobile Social Media: Time spent by individuals with consumer generated content either developed for or created on wireless devices, or shared within the social media community using apps developed specifically for wireless devices, including any video teleconferencing among the community members.

Mobile Video: Motion-based content produced exclusively for download on wireless devices, content produced elsewhere and transfigured for wireless devices using a third-party technology solution available exclusively from the telecommunications provider, or is downloaded via a video-based app, including those from subscription services, like Netflix or Hulu.

Other Digital Media Usage: Consumer access, engagement or interaction with digital content, advertising or services for personal entertainment use or consumer brand advertising through various other digital media. Does not include digital media or content developed for workflow efficiencies or created specifically for internet-accessible computers or wireless mobile devices. These media and devices include videogame-playing systems, television time-shifting hardware, and digital out-of-home advertising networks, billboards and signage in various indoor and outdoor locations.

Console, PC & Handheld Videogames: Time spent by consumers playing videogames available on some type of physical disc. It does not include the time that consumers link to the online or mobile extension of the games to compete with players in other locations in MMOG formats. However, it does include the time consumer might spend going online to download additional content that becomes available when players complete certain tasks, such as scoring enough points to download a faster car in a racing title. It also does not include time spent viewing downloaded TV programs or films on console hardware using services such as Netflix, which is included in over-the-top (OTT) video below.

Digital Out-of-Home (DOOH) Media: Consumer engagement with content and advertising while outside the home and provided by a third-party operator. Digital out-of-home includes three types of platforms: 1) digital place-based networks, in which content is telecast on screens in specific venues, such as theaters, transit hubs and vehicles, retail outlets, medical offices, corporate towers, sports arenas, and entertainment venues, such as bars, restaurants and fitness clubs; 2) digital billboards & signage, which are exclusively ad-based, but messages change in a pre-determined timeframe; and 3) ambient out-of-home media, including messages often embedded onto objects using digital technology, such as 3-D printers.

Over-the-Top (OTT) Video: Consumers using digital technology to access and view video content on-demand, such as time-shifting and saving TV content through digital video recorders (DVR) for convenient viewing, accessing movies and TV programs at specific times using video-on-demand (VOD) services or downloading video content through videogame consoles. It also includes interactive games available through cable subscription services and satellite TV providers.

Satellite Radio: Radio programming primary consumed in automobiles using specific digital equipment and is available only in two countries, the United States and Canada.



Traditional Media (TM) Usage: For purposes of this report, PQ Media grouped together consumer time spent with key traditional media platforms for personal use, such as reading print-based news, data and other information publications; viewing or listening to entertainment content at home or in theaters through electronic hardware and using physical discs that were considered analog media when first developed as a medium, and engaging with out-of-home advertising via non-digital billboards and other signage; watching live broadcast or cable video on a programmed schedule primarily at home, or listening to audio content from terrestrial radio stations and networks through broadcast radio devices, such stereo receivers.

Traditional Media Platforms

Live Television: Viewing television programming on TV receivers found primarily in the home, on a predetermined schedule set by the TV stations, cable providers, and broadcast, cable and regional sports networks. It does not include time-shifted viewing or consumer controlled viewing using VOD.

Physical Film & Home Video: Viewing feature-length films in person, or watching them through electronic hardware, such DVD and VHS players when they became available on physical discs and cassettes. It also includes consumers viewing TV programs that have become available in multi-episode editions that are tied to a specific season when the program aired on broadcast or cable television networks.

Physical Music: Consumers listening to recorded music on CDs, cassette and vinyl using electronic equipment and physical discs that are primarily multiple tracks from specific artists, groups, performance ensembles, and multi-artist themed titles determined by the recording studio.

Print Books & Directories: Reading one-time consumer-focused book releases from specific authors, editors and publishers, as well as students reading textbooks, consuming information that pertains to a specific vertical from publications that are printed and updated annually, such as yellow page directories, Census Bureau statistical abstracts, and sports-related yearbooks.

Print News & Information: Reading print-based news and other information publication with a primarily local focus that distributed by subscription or single copy at a predetermined time each day or week, with content regarding events that occurred within the past day or week, but also includes general articles on key verticals, like business and cooking..

Print Periodicals & Serials: Reading print-based publications that includes information content that is aimed towards a specific demographic, such as women, or shared activity, like hunting. It also includes consuming print-based publications that retail or product oriented. Print periodicals & serials are distributed based on a pre-determined annual subscription schedule, usually weekly, monthly or quarterly, and can include consumer-targeted magazines and newsletters, as well as catalogs, shoppers and traders,



Traditional Media Usage (cont.)

Terrestrial Radio: Listening to radio station and network music, talk and sports programming, not including digital-related satellite radio, using broadcast radio devices, such as stereo receives, conventional and HD car radios, clock radios, and portable radio devices, like walkmans and boom boxes.

Traditional Out-of-Home Media: Consumer engagement with out-of-home advertising via non-digital billboards and other signage. It is normally in place at a specific location for a predetermined amount of time, depending on the contract, for a week, month, or quarterly. It requires physical labor to deploy and subsequently replace.

Media Silo Usage: For purposes of this report, PQ Media combined the consumer usage and exposure of the digital and traditional, when applicable, extensions of a media platform on the various devices the content is consumed, such as TV programs on TV sets, via OTT video, on PCs, laptops, smartphones and tablets. As result of the combination, internet and mobile media usage is limited on to content available on digital devices, such as online search and mobile applications, which is considered legacy content, also know as pure-play.

Media Silo Platforms

Books & Directories: Combined reading print consumer books, textbooks, local yellow page directories, abstracts, and sports yearbooks, with consuming similar material on digital devices including PCs, laptops, smartphones, tablets, and e-Readers, such as internet yellows and e-Books.

Film & Home Video: Combined viewing feature-length films in theaters, on DVDs, and VHS, with viewing on OTT Video, such as DVRs, VOD, PPV and videogame consoles, as well as streaming on digital devices, such as PCs, laptops, smartphones and tablets.

Legacy Internet Media: Combines content and services that are specific to the internet and viewed on PCs and laptops, such as online search, e-mail, e-commerce, online social media, and content not found on traditional media platforms, such as e-Harmony and credit report sites. It also includes any content downloaded on PCs and laptops, but then transferred to wireless devices, such as an e-Book copied to a tablet. It does not include content developed by traditional media companies within another media silo and often repurposed for internet viewing, such as television videos placed on ESPN.com, as well as pure-play digital companies that are identified with a media silo, such as Huffington Post in News & Information.

Legacy Mobile Media: Combines content and services that are specific to the wireless devices, such as mobile search, texts, m-commerce, mobile apps, and mobile social media. It only includes content downloaded onto the wireless devices, such as an m-book, and not copied or transferred from a PC or laptop. It does not include content developed by traditional media companies within another media silo and often repurposed for wireless devices, such as television videos placed on ESPN Mobile.



Media Silo Usage (cont.)

Music: Combined consumers listening to recorded music on CDs, cassette and vinyl with streaming on MP3 players, PCs, laptops, smartphones, feature phones, such as ring tones, and tablets.

News & Information: Combined reading print-based news and other information publications, such business newspapers, with consuming similar material on digital devices including PCs, laptops, smartphones, tablets, and e-Readers, such as brand extensions of popular newspapers, news aggregators and blogs.

Out-of-Home Media: Combines consumer engagement with static billboards, street furniture and transit posters with digital billboards, digital place-based networks, kiosks, interactive screens, and ambient out-of-home.

Periodicals & Serials: Combines reading print-based publications purchased from newsstands, distributed via subscription, received in the mail, and available at local services, like doctor's offices with reading the same material via digital devices including PCs, laptops, smartphones, tablets and e-readers, such as digital extension of popular magazines and e-zines,

Radio: Combines listening to radio on broadcast radio devices, such as stereo receives, conventional and HD car radios, clock radios, and portable radio devices, like walkmans and boom boxes, with listening on satellite radio, digital audio broadcasting (DAB) receivers, and to online radio stations on digital devices, such as PCs, laptops, smartphones and tablets.

Television: Combined viewing broadcast and cable television programming on TV sets with viewing via OTT video, such as DVRs, VOD, and videogame consoles, PCs, laptops, smartphones and tablets. It also includes PPV events produced specifically for TV, like wrestling and concerts.

Videogames: Combines playing videogames titles published for consoles, PCs, and handheld devices with playing the extensions of those titles on PCs, laptops, smartphones and tablets, usually in massively multi-player online or mobile games (MMOG/MMMG), as well as games produced specifically for digital devices like MMOG games like *Runescape*, social/casual games and mobile gaming apps.



Demographics: Clusters within an overall population that share one or more common characteristics.

<u>Gender</u>

Dividing the entire population by the end user's sex.

Male: For the purpose of this study, the entire male population (men and boys) globally, regionally and by market, ages 0+ annually from 2008 to 2019.

Female: The entire female population (women and girls) globally, regionally, and by market, ages 0+ annually from 2008 to 2019.

Generation

All living male and female consumers grouped by a specific year-to-year range, spanning approximately 15 to 20 years in length per cluster, who share similar cultural characteristics, such as experiencing significant social, political, economic and/or technological events or advancements that contributed to the formation of commonalities, such as behaviors, perceptions and/or habits that have shaped the direction of their lives.

Greatest Gen: (pre-1946): First generation born soon after the advent of broadcast radio, which provided news and entertainment programming scheduled at specific intervals. As children, they experienced major global events that required great sacrifices, including the Great Depression in the 1930's, World War II in the 1940's, and the post-war boom in the US, depending on when and where they were born. Greatest Gen is also known as Depression Babies, Lost Generation, Post-War Cohorts, and Silent Generation, among others..

Baby Boomers: (1946-64): First generation born after broadcast television was introduced, bringing images into the household during a time of great domestic and international upheaval. As children, they experienced the height of the Cold War; they witnessed the role of women change dramatically; citizens of developed countries enjoyed the greatest economic boom on record; many were greatly impacted by political and cultural events of the 1960's, including assassinations of beloved leaders; and regional wars with great social and political consequences. Baby Boomers are also known as Boomers, the Boom Generation, Alpha Boomers, Generation Jones, and Mega Boomers

GenX: (1965-1980) The first generation to be significantly impacted by a deluge of multimedia news, information, entertainment and advertising options. As children, they grew up as the primary consumers of on-demand and digital media alternatives that would reshape the media and technology ecosystem, such as widespread media multitasking using devices including home computers, cable TV, videogames, VHS and CDs. They also witnessed iconic technology-driven events, such as the first human landing on the moon, experienced the end of the Cold War and the rise of the Middle East as an economic power, leading to a more competitive global economy. GenX also known as Generation X, MTV Generation, Latchkey Kids, among others



Generations (cont.)

Millennials: (1981-1996) The first generation born after the internet were introduced, expanding the notion of targeted media content and expanded coverage of significant events. As children, they experienced a higher incidence of single-parent households, witnessed a technology-driven economic rebound that drove a status-symbol culture for consumers worldwide, Millennials are also known as Echo Boomers, Generation Next and Generation Y..

iGen: (1997-2012) The first generation born with broadband internet access and the introduction of the cell phone with text messaging, allowing consumers to stay connected during the entire day at home, school and work. As children, they dealt with the rise of international terrorism and the weakest economic condition in 80 years. iGens are also known as Digital Natives, Generation@, Generation Z, Net Gen, and Pluralist Generation.

mGen: (2013+) The first generation born after wireless devices provided access to data, such as smartphones and tablets, allowing consumers to stay connected during the entire day in all locations. As children, they dealt with the rebound from weakest economic condition in 80 years, as well as an increased tensions relating to immigration/race relations, and the introduction of smart technology/cities – artificial intelligence (AI), computer/audio robots (BOT), augment reality (AR), internet of things (IoT), and virtual reality (VR).

Common Acronyms Used in Report

CAGR: Compound annual growth rate, or the year-over-year growth over a specific period time, which for this report was a 5-year period.

AMER: Americas

APAC: Asia Pacific

EU: Europe.

ME&A: Middle East & Africa

RoAM: Rest of Americas

RoAP: Rest of Asia Pacific

RoEU: Rest of Europe



Global Consumer Media Usage & Exposure Forecast 2018-22 About PQ Media



About PQ Media and the Annual PQ Media Global Media & Technology Forecast Series

PQ Media is a leading provider of actionable competitive intelligence and strategic guidance to management teams of the world's top media, entertainment & technology organizations. PQ Media delivers intelligent data and analytics to high-level executives to empower them to make smarter, faster business decisions amid the transforming global media & technology ecosystem. Our well-respected team of industry analysts and proven econometric methodology drive the annual PQ Media Global Media & Technology Series, a three-report suite of exclusive market intelligence that helps drive client growth objectives with a laser focus on the media economy's key performance indicators: operating company revenues, consumer time spent with media, and consumer spending on media content & technology (see more info & links to free downloads below).

PQ Media's Global Media & Technology Forecast Series:

PQ Media applies its proven econometric methodology and multi-channel research to our annual KPI benchmark series to help executives in the global media, entertainment & technology industries gain a deeper understanding of the world's transforming media ecosystem. This three-report suite delivers the first holistic view of the collective global media economy, focusing on digital & traditional advertising, marketing & consumer media usage and spending and profiling the Top 20 Global Markets, including the U.S., which account for more than 85% of global media revenues and spending annually. Each report in the series provides comprehensive five-year historical tracking and five-year forecasts for one of the three abovementioned KPI's. Our industry, sector, market, platform, channel and generation definitions remain consistent across each report making it easy to quickly compare growth patterns, drivers and performance in each global region, domestic market and individual admedia & marcom landscape.

- Global Media & Technology Forecast Series 2017 (link to site license info for standalone reports & 3-Report Special Enterprise Bundle License)
- Global Advertising & Marketing Revenue Forecast 2017-21
- Global Consumer Media Usage & Exposure Forecast 2017-21
- Global Consumer Spending on Media Content & Technology Forecast 2017-21

*Following are some of PQ Media's annual market research report series. For more info on site license options & free executive summary & data downloads, click: pgmedia.com/reports/

- Global Branded Entertainment Marketing Forecast 2018
- Global Content Marketing Forecast 2017
- Global Out-of-Home Media Forecast 2017
- U.S. Digital Out-of-Home Media Forecast 2016
- U.S. Brand Activation Marketing Forecast 2016
- Global Branded Entertainment Marketing Forecast 2015
- Global Content Marketing Forecast 2015

- Global Media & Technology Forecast Series 2016
- Global Media & Technology Forecast Series 2015
- Global Media & Technology Forecast Series 2014
- Global Media & Technology Forecast Series 2013

- Brazil Media & Technology Outlook 2014
- China Media & Technology Outlook 2014
- Global Digital Out-of-Home Media Forecast 2014
- Global Consumer Exposure to Digital Out-of-Home Media Forecast 2014
- Top 100 Brands on Social Media Worldwide 2013
- U.S. Mobile & Social Media Forecast 2012-16
- U.S. Political Campaign Media Spending 2010



About PQ Media's Client's & Subscribers and Consulting Services

PQ Media's Clients & Subscribers

PQ Media has accurately predicted key trends, insights and outcomes that have influenced strategic plans, investment parameters and tactical approaches for some of the world's most respected media companies, media agencies, financial institutions, and research & consulting firms:

Media Companies

- Associated Press
- NBC Universal
- News Corp
- Time Warner
- Turner Broadcasting

Financial

- Bain Capital
- Credit Suisse
- Deutsche Bank
- GE Commercial Finance
- JP Morgan

<u>Agencies</u>

- Dentsu
- Havas Media
- Hill Holiday
- Kinetic
- Starcom Worldwide

Technology/Telecom

- AT&T
- Cisco Systems
- Google
- Microsoft
- Qualcomm

Research/Consulting

- Bain & Co.
- LEK Consulting
- McKinsey & Co.
- Nomura Research Institute
- Yano Research Institute

PQ Media's Consulting Services

Due to the global marketplace demand, we broadened and deepened our analysis of media through the lens of PQ Medianomics (see Methodology). The media industry has been expanding exponentially with more new channels being developed in the last 50 years compared with the first 5,000 years. Brands have more than 200 choices to distribute their messages compared with 50 in 1990, a fourfold increase. With the myriad of changes to the media ecosystem, key media stakeholders reach out to PQ Media for strategic intelligence to help in their decision-making process because of the unique data and trends analysis that we can offer. As a result, we developed a broader portfolio of custom consulting services to meet the growing needs of our clients. We have five types of consulting services:

- Actionable Strategic Intelligence Reports: PQM develops in-depth analysis of media industry trends, with multiple categories being analyzed or industry & segment briefs with drill-down data
- Perception Surveys: PQM develops, implements and analyzes results from a questionnaire we would prepare to ascertain how a specific end user perceives your company, brands and/or services
- Webinars & Presentations: PQM would prepare and present branded webinars and presentations that tie media industry data to your products and services
- Custom Phone Consults: PQM executives and industry thought leaders and we would provide our opinion in confidence on specific media platforms, channels, trends and/or companies.
- Licensing PQ Media Report: PQM prepares a specific report for you that would be available exclusively to a specific universe, such as clients or trade organization members

Contact PQM & Follow Us

Success in today's transforming mediascape requires timely, actionable strategic intelligence. Let PQ Media help your organization make smarter, faster business decisions with a no obligation situation review or preliminary phone consult. Please contact Patrick Quinn at pquinn@pqmedia.com or Leo Kivijarv at lkivijarv@pqmedia.com or call 203.569.9449 today to prepare for the hybrid media future.

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Global Consumer Media Usage & Exposure Forecast 2018-22 Methodology



Research Methodology

PQ Media's proven research methodology and proprietary mapping system – PQ Medianomics[™] – utilizes proprietary data collection techniques, algorithmic models and analytical approaches to track, analyze and forecast spending, consumption and trends in all major media, platforms and channels of the media and entertainment industries. PQ Media's system, driven by our SpendTrak[™] and UsageTrak[™] databases, as well as our exclusive Global Opinion Leader Panel[™] (GOLP), layers the impact of key data and variables, including economic, demographic, behavioral, technological and regulatory.

In defining, structuring, sizing and forecasting global industries and markets, such as content marketing, branded entertainment and digital out-of-home media, PQ Media seeks input from our exclusive Global Opinion Leader Panel™, which includes several hundred executives at media and entertainment companies, financial institutions, consulting firms, media agencies and brands regarding various data and information driving key trends and growth in campaign media spending. We also examine thousands of public and private documents from more than 1,000 sources pertaining to regional and market-specific trends and data in content marketing, the advertising & marketing ecosystem; economic sectors & demographic profiles; and any other factors, such as technology penetration rates, that might affect the content marketing industry, overall advertising environment, the economy and consumer media usage behavior & spending patterns.

PQ Media's proven econometric methodology is set apart from other media research sources in a number of important ways. For example, PQ Media doesn't use standard rate card data and estimated impressions as the methodological foundation of our spending and growth algorithms. Our consistent, comprehensive and in-depth mapping of the entire media and entertainment landscape provides industry stakeholders with a complete picture of how the spending and usage patterns of consumers, businesses, brands and agencies are changing at an increasingly rapid pace, driven by technology innovation and emerging digital media.





Research Methodology

Specific to this Report, PQ Media's digital media usage methodology is a groundbreaking approach designed to be unique in the interest of providing our clients with the most comprehensive, consistent and actionable media consumption data available on the market. The data contained in this Report and the detailed datasets provided in the Companion Excel Workbook are unique in several key aspects:

- 1. This is the first media consumption research to study the entire population of end users worldwide for all ages (0+), which contrasts with the traditional focus on either 13+ or 19+ users found in most other media usage studies. This original approach allows PQ Media to distinguish between differences in digital media usage among developed and emerging countries, as well as five cultural generation segments of the current global population. This approach permitted PQM to provide a more relevant and holistic view of a rapidly changing global media ecosystem across generations of consumers;
- 2. Our final media usage data is presented here using average hours per week, compared with daily or annually based on feedback from our Global Opinion Leader Panel™. This input indicated that a weekly view is the most actionable media usage metric for the media industry because weekly data is most often used by major advertisers and marketers to plan and buy media;
- 3. This Report is the first research to break out internet and mobile media usage by the 22 key media channels within each digital platform, including online video, mobile search, social media, and over-the-top video viewing, among others;
- 4. PQ Media included at-home digital media subscriptions, such as internet access subscriptions, but also counted subscriptions from other locations in which consumer-facing media and content is also accessed, such as entertainment venues and certain businesses at particular hours of the day. This method enabled our analysts to deliver data that is consistent across all media platforms, both digital and traditional;
- 5. In developing the data presented here, PQ Media took into consideration the penetration rates of digital media in each of the 15 leading global markets, the strength of the technology infrastructure in each country, the domestic economic environment and its impact on digital media and technology purchases, and the media behavior patterns of different generations.





pqmedia Global Media & Technology Forecast Series 2018



Global Advertising & Marketing Revenue Forecast 2017-21

Global Consumer Media Usage & Exposure Forecast 2017-21

Top 20 Global Media Markets

Global Consumer Spend on Media & Tech Forecast 2017-21

*South Africa *Japan *United States *China *South Korea *Mexico *France

*Argentina *Spain *Netherlands *Australia *Germany *Taiwan *Poland *Brazil *India *United Kingdom *Russia

- Most credible, consistent & actionable media & tech intelligence covering 2012-22 period, with 2017 actuals, 2018 pacing, 2018-22 forecasts
- Only primary source delivering data & analyses tracking all media & technology platforms & channels worldwide

*Italy

*Canada

Original industry definitions & segmentation, current market sizing & growth projections, key growth drivers & emerging challenges

