globalwebindex

Device

GlobalWebIndex's **flagship report** on device ownership and usage

FLAGSHIP REPORT 2019

www.globalwebindex.com

Contents

Introduction

GlobalWebIndex Device Flagship places the spotlight on the latest ownership and usage trends across all major device categories, including smartphones, PCs/laptops, smartwatches, smart homes and VR/AR.

Among others, this report covers the following topics in detail:

- Which devices are the most widely owned and used.
- How ownership of different devices varies across different demographic groups.
- How much time is being spent on mobiles and PCs/laptops and how this varies by age and region.
- What behaviors are most likely to be taking place on mobile versus PC/laptop.
- Current engagement with smart home devices and how this is set to grow.
- Which brands are winning in the smartphone marketplace and what users need to upgrade their current handset.
- What devices consumers use for gaming and what is the potential of AR and VR technology.

Key Insights

Mobile adoption has reached its saturation point, but bigger screens are still relevant.

Today, 95% of internet users have a smartphone, up by 14 percentage points since 2015. But consumers don't choose one device over another – they're multi-device owners, having an average of 3.4 different devices. Moreover, looking at the average time users spend on their devices every day, we can see that the gap between mobiles and bigger screens isn't as wide as many might presume. In 2019, online adults report spending only around four minutes longer on mobiles than computers.

Smart home devices and voice tech are seeing moderate growth.

Smart home entertainment products have made inroads among a large and growing share of internet users, but global adoption remains relatively low at 12%. However, 16-24s are most enthusiastic with this tech and a third report having a smart home product. Voice search usage has been on the rise in the past two years, reaching 42% of internet users globally who say they have conducted a voice search within the past month on any device. This is a 31% increase since the first half of 2017 and sees greatest uptake in the Asia Pacific region.

The race between Samsung and Apple is very close, but Chinese brands are the ones to watch.

Samsung is still the most popular handset brand, but Apple has made some real headway here. While adoption of Samsung handsets outside China has been steady since 2015, ownership of Apple mobiles has risen by six percentage points to 27% today. Chinese brands like Huawei and Xiaomi are also racing ahead and increasing their market share on a global scale. Today, a full 14% of global internet users own Huawei phones, with an additional 24% considering buying one.

Console gaming is stabilizing and diversifying.

Games consoles ownership has been showing a downward trend between 2015 and 2017, but it has remained steady at 22% in the past three years. Console gaming is often assumed to be male-dominated, but with 40% of users being female, gaming consoles aren't exclusively used by men. And while we're seeing a decline in male console gaming, female representation has been growing since the beginning of 2018. Video games have traditionally been targeted towards men, with women and ethnic minorities being largely **under-represented** in gaming. However, this approach is now outdated and targeting in this way is likely to mean gaming companies are missing out on great numbers of potential consumers.

Virtual and augmented reality can go mainstream.

So far these technologies (especially VR) have been primarily associated with gaming, and this category does outstrip any other use of AR/VR, with other forms of entertainment like films or documentaries lagging behind. However, our data shows that there's plenty of scope for expansion beyond entertainment, with education and tourism/travel proving particularly fruitful routes.

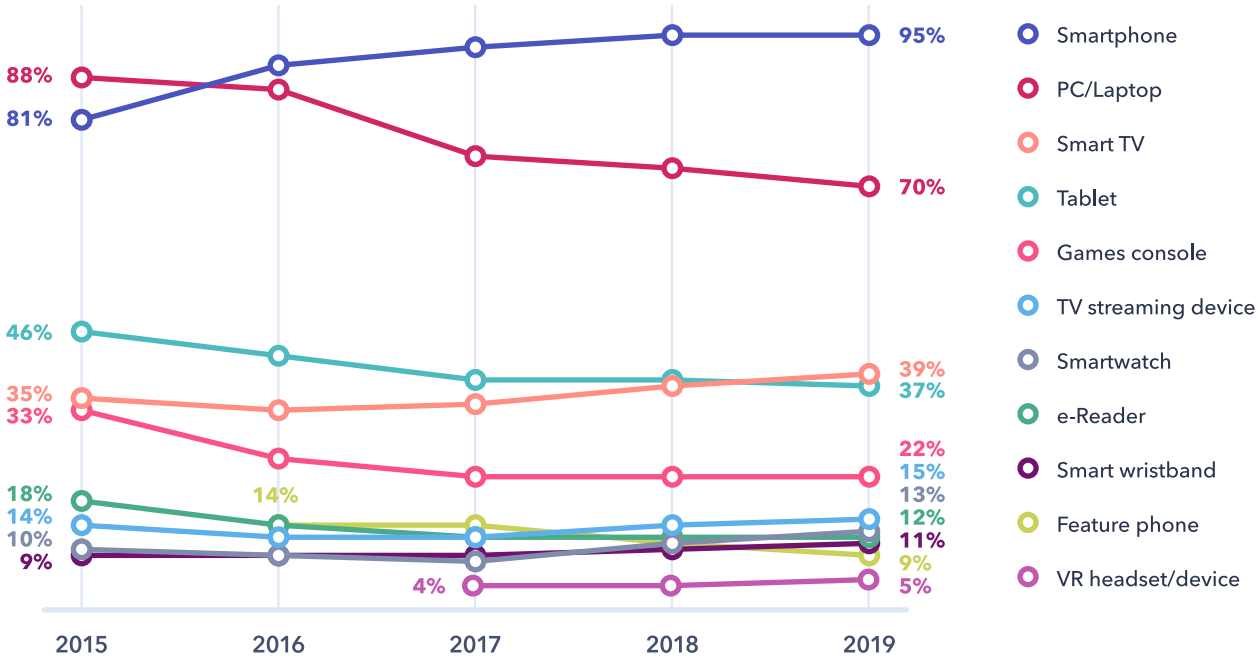
Device

Device Ownership

Device Ownership

Device Ownership Over Time

% of internet users who own the following devices



RESPONDENTS SEE THE FOLLOWING DEFINITIONS / ILLUSTRATIVE EXAMPLES:

e-Reader: a digital reading device, *e.g. Amazon Kindle, Kobo, Nook etc*

Smart TV: a television that can connect to the internet

Smart Wristband: a digital wristband which typically tracks your health and fitness levels, *e.g. Nike Fuelband, Jawbone Up, Adidas miCoach*

Smartphone: a smartphone allows you to connect to the internet and download apps, *e.g. an iPhone or Android phone such as the Samsung Galaxy S10*

Smartwatch: a watch which allows you to connect to the internet and use apps, *e.g. Pebble, Samsung Galaxy Gear and the Apple Watch*

Tablet: Popular examples include *an Apple iPad, Samsung Galaxy Tab, Microsoft Surface, Google Nexus tablet*

TV streaming device: a digital media device which streams web content to your TV set, *e.g. Apple TV, Amazon Fire TV Stick, Google Chromecast, Roku Streaming Player*

VR headset/device: A device that immerses users into simulated environments, *e.g. PlayStation VR, Samsung Gear VR, Google Cardboard and Deepoon VR.*

Being virtually universally owned on a global scale, it's well-known that smartphones have transformed online behaviors. Today, **95% of internet users have a smartphone, up by 14 percentage points since 2015**.

Over the same time period, PC/laptop ownership has declined by 18 percentage points. However, **we're not in a post-PC era yet** – 7 in 10 global internet users own one in the beginning of 2019, ranging from 90% in Russia to 22% in Morocco.

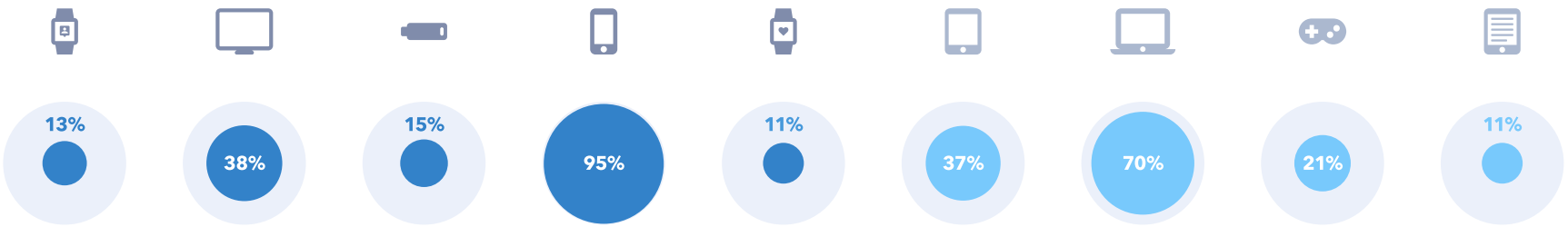
Tablets have lost the momentum they'd enjoyed in the years after their launch. Adoption peaked in 2015 and has since inched lower year on year, reaching 37% in 2019. **Games consoles have also been showing a downward trend** between 2015 and 2017, but they have remained steady at 22% in the past three years. **The rising popularity of mobile gaming, the increasing cost of consoles and a longer upgrade cycle are all having an impact here.** However, consoles remain popular in North America and in some parts of Europe, where 4 in 10 respondents reported owning one.

Question: Which of the following devices do you own?
Source: GlobalWebIndex Q1 2015 – Q1 2019
Base: 1,392,778 Internet Users aged 16-64

Device Ownership

Device Ownership

% of internet users who own the following devices



CHANGE SINCE H1 2016

Smartwatch	Smart TV	TV streaming stick/device	Smartphone	Smart wristband	Tablet	PC/Laptop	Games console	e-Reader
▲ 25%	▲ 13%	▲ 12%	▲ 7%	▲ 6%	▼ 16%	▼ 18%	▼ 22%	▼ 25%

AVERAGE NUMBER OF DEVICES OWNED

TOTAL	**3.4**
16 to 24	**3.2**
25 to 34	**3.5**
35 to 44	**3.5**
45 to 54	**3.3**
55 to 64	**3.1**

Consumers don't choose one device over another – they're multi-device owners, having an average of 3.4 different devices.

Although owned by only 13% of online users, **smartwatch adoption has grown the most since the first half of 2016**. This figure varies strongly by market though, and it jumps to 19% in Hong Kong and 18% in India.

All that said, digital consumers don't necessarily choose one device over another. Rather, **they have broad device portfolios, owning an average of 3.4 of the 11 devices listed in the chart on page 5.**

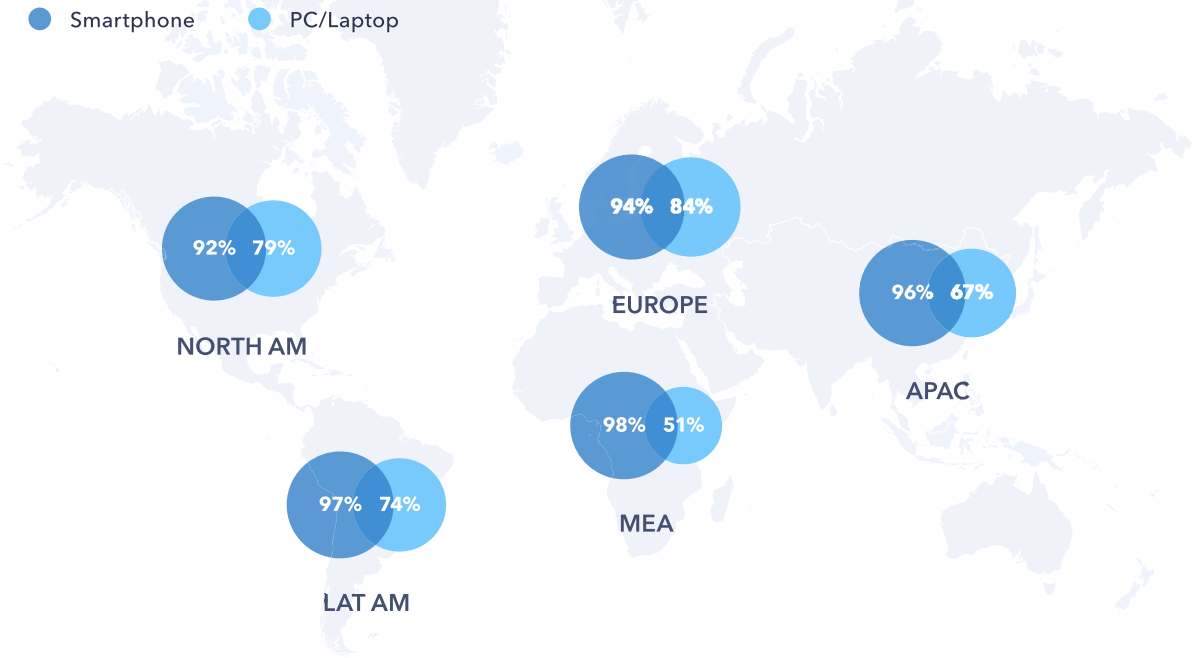
In the **Markets Insights** infographic at the end of this chapter, we look at how the ownership of PCs, smartphones, games consoles and smart home products varies by market.

Question: Which of the following devices do you own?
Source: GlobalWebIndex Q4 2018 – Q1 2019
Base: 278,359 Internet Users aged 16-64

Smartphones vs PCs & Laptops

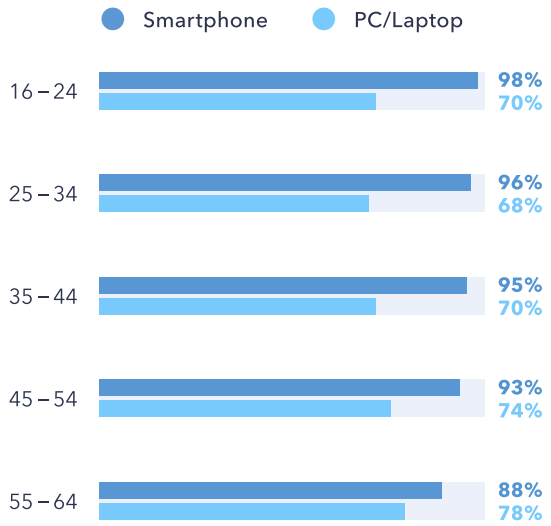
Smartphones vs PC/Laptops | Region

% of internet users who own the following devices



Smartphones vs PC/Laptops | Age

% of internet users who own the following devices



Smartphones have reached a 25-point lead over the bigger screens globally, but it's essential to take a regional perspective here. **The smartphone's lead is particularly pronounced in the Middle East and Africa where virtually everyone has a smartphone and just over half have a computer.** The centrality of the mobile here is mainly down to the important role the smartphone has played in the development of the internet landscape.

Meanwhile, **PC ownership is ingrained in regions characterized by developed markets like Europe and North America**, where internet users likely first came online via PCs and where online populations tend to skew older. Nevertheless, smartphones are leading over PCs and laptops in all 45 markets we track today.

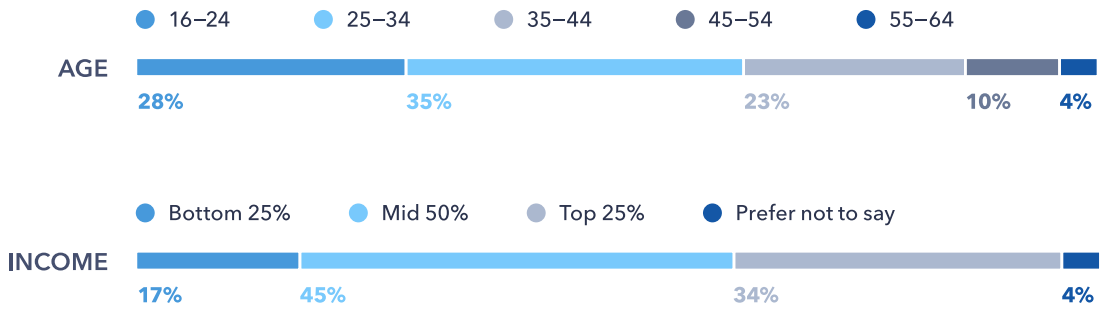
> Today, smartphones have a lead over PCs and laptops in all 45 markets we track.

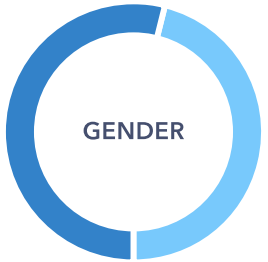
Question: Which of the following devices do you own?
Source: GlobalWebIndex Q4 2018 – Q1 2019
Base: 278,359 Internet Users aged 16-64

Smartwatches

Profiling Smartwatch Owners

% of smartwatch owners who are…





Male **57%**
Female **43%**

The smartwatch market is still yet to fully take off. They still come across as having unjustified high price tags for the few apps and functionalities they offer that set them apart from a smartphone. **Globally, just 13% of online adults say they have a smartwatch.** The average smartwatch owners are most likely full-time working men in their early thirties with high income.

They're 52% more likely than the average internet user to fall into our cosmopolitan attitudinal segment, meaning that they are interested in other countries, like to be surrounded by different cultures and lifestyles and explore the world around them. On top of that, they have an above-average tendency to keep up with the latest fashions and to have the latest technological products.

51%

more likely to buy a product/service simply for the experience of being part of the community

39%

more likely to keep up with the latest fashions

38%

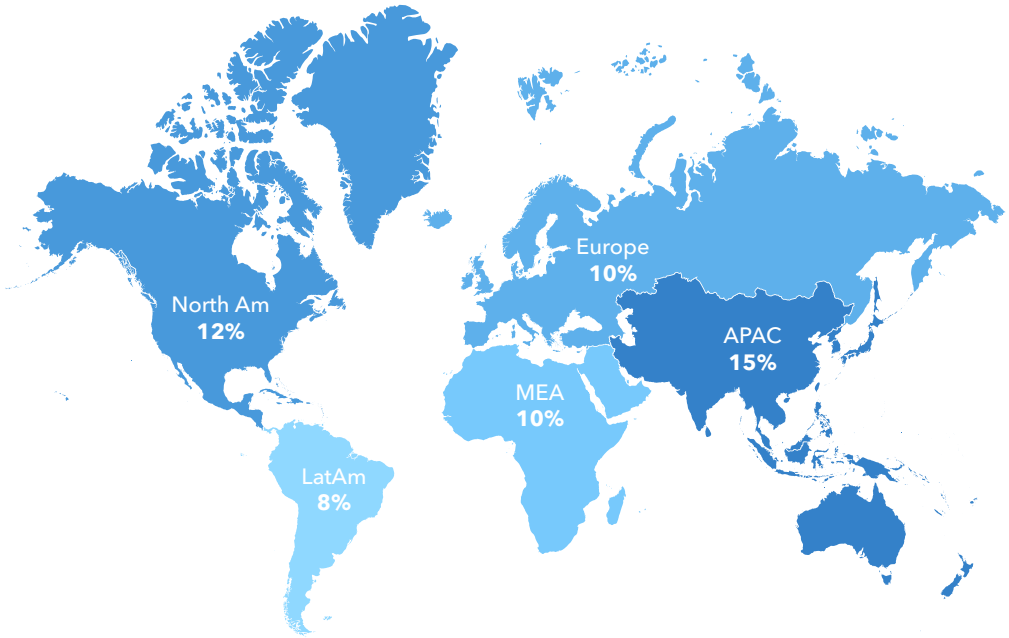
more likely to say that having the latest technological products is very important to them

Question: Which of the following devices do you own? (Smartwatch)
Source: GlobalWebIndex Q4 2018 – Q1 2019
Base: 278,359 Internet Users aged 16-64 and 34,046 Smartwatch Owners aged 16-64

Smartwatches

REGION

% of internet users who are smartwatch owners in the following regions



The extent of the smartwatch uptake differs by region though. **The headline figure is driven by Asia Pacific (15%), particularly by high adoption in Hong Kong (19%) and India (18%).** The reason for that is mainly because in Asia the term 'smartwatch' encompasses a range of devices, some of which retail for as little as $20.

Outside of APAC, we see a strong uptake in North America at 12%, which is particularly down to the popularity of the Apple brand. **The Apple smartwatch is owned by 61% of smartwatch owners here** and this figure has only been growing and it's likely to continue to do so.

Despite a somewhat lower adoption, **Apple is also the dominant player in the UK smartwatch market at 52%, while Samsung lags behind at 23%**. With rumors of the **Apple Watch 5** running the brand new watchOS 6 software as well as featuring new apps and improved microphones among other features, we're likely to see more consumers lured to this brand.

> Apple is by far the dominant smartwatch brand in the UK and U.S. among smartwatch owners.

Smartwatch Brands: Apple vs. Samsung

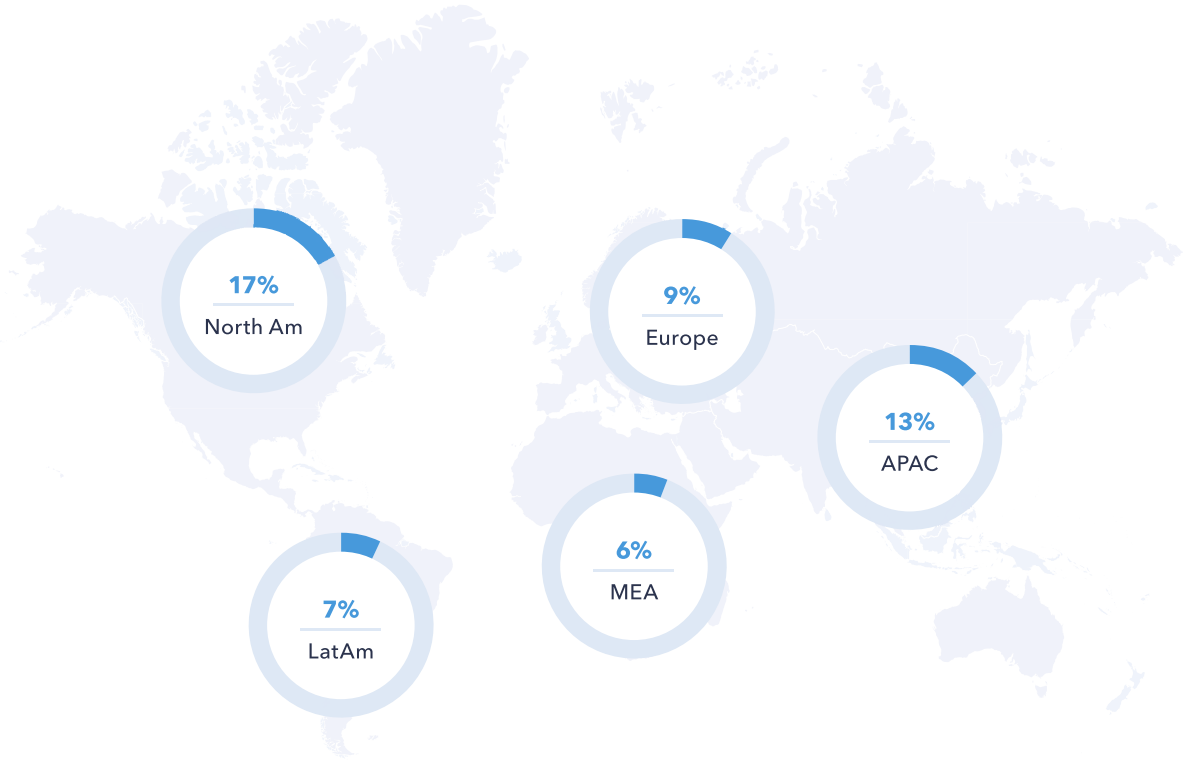
% of smartwatch owners in the UK and the U.S. who own the following smartwatch brands

Question: What brand is your smartwatch?
Source: GlobalWebIndex Q4 2018 – Q1 2019
Base: 34,046 Smartwatch Owners aged 16-64

Smart Home Devices

Smart Home Product Owners

% of internet users in each region who say they own a smart home product



Although a lot has been written on smart home appliances and their functionality, **the global adoption of smart home products remains relatively low at 12%**. However, looking at younger demographics reveals a different picture – **more than a third of 16-24s have a smart home product**.

Adoption also varies by region and it's highest in North America (17%) and lowest in MEA (6%). In fact, it is **estimated** that **more than 63 million homes in North America will be smart** by 2022, or 44% of all homes in the region.

Question: Which of the following devices do you own?
Source: GlobalWebIndex Q4 2018 – Q1 2019
Base: 278,359 Internet Users aged 16-64

• TREND IN ACTION •

Smart Home OS 3 makes smart homes more intuitive

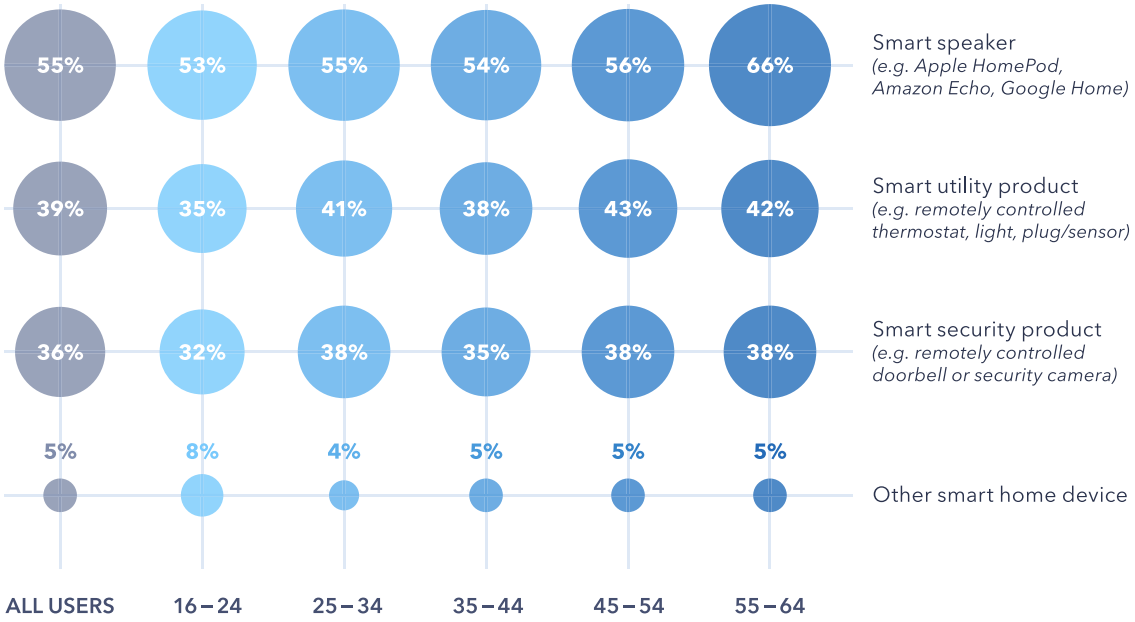
One peril that stands on the way of universal smart home adoption is the fact that it's usually difficult to navigate a smart home seamlessly when different devices come from various companies and operating systems.

This is where global provider of automation and networking systems for homes and businesses, Control 4, comes into play to change that. Its latest product, the **Smart Home OS 3**, can control more than 13,500 third-party devices. It allows users to monitor all smart home products via a dashboard, thus easing the fatigue they might feel as a result of not being able to track all devices that make their home smart.

Smart Home Devices

Smart Home Products Ownership

% of smart home product owners who own the following devices



With their promise of *Star Trek*-style "computer, tell me–" functionalities, immediacy and ease of use, **voice assistants are the most commonly owned smart home devices among smart home product owners**. They're heralded as the future of everything from search to shopping.

What's interesting here though is that older people are more likely to own a smart speaker than their younger counterparts, with 2/3 of 55-64-year-old smart home product owners having one. And while many would think that's down to them being more affluent, **this trend remains even when we look at high-income earners**.

> Older smart home product owners are more likely to own a smart speaker than their younger counterparts.

The reality is that voice assistants are the perfect tool for older people. It helps those with limited mobility in their daily tasks, facilitates quick emergency calls, and allows for an easy set-up of reminders. And although people having those needs might be older than 64 years, similar to tablets, we do see strong adoption of household devices here as well. Older people have even become Amazon Echo's target demographic in commercials as they often **feature** grandparents being introduced to the technology by their grandchildren.

Smart utility products are the second-most prominent devices among smart home product owners, which again sees strong uptake with older demographics. **42% of 55-64s own one compared to 35% of 16-24s.**

Question: Which of these smart home devices do you own?
Source: GlobalWebIndex Q1 2019
Base: 17,096 Smart Home Product Owners aged 16-64

Voice Tech

Voice-enabled search is a keystone habit that consumers will have to embrace if assistant devices are to achieve mass adoption. Brands are keen to understand whether they need to integrate with voice before it's too late, and **it's becoming clear that this is a trend which has the potential to reshape entire industry landscapes**.

Today, 42% of the global online population say they have conducted a voice search within the past month on any device, which represents a 31% increase since the first half of 2017. For many consumers, their introduction with voice command tools has been via their mobile, but computers and tablets have also seen an increase of voice search in the past two years.

Unsurprisingly, our data shows that the younger the internet user, the more likely they are to be engaging with voice search, especially on smartphones. **But across each age group, there's been an increase in the numbers searching via voice commands.** Almost all mid-to-premium-end mobiles now have integrated voice assistants, and their capabilities continue to become more sophisticated with each new generation of handset.

Mobile Voice Search

% of internet users who have used voice search or voice command tools (e.g. Siri, Cortana) in the last month on…

	Any device	Mobile	PC/Laptop	Tablet
TOTAL	**42%**	**32%**	**14%**	**6%**
Increase since H1 2017	*+31%*	*+39%*	*+17%*	*+50%*
AGE				
16-24	**50%**	**39%**	**16%**	**5%**
25-34	**48%**	**36%**	**17%**	**7%**
35-44	**41%**	**30%**	**15%**	**6%**
45-54	**30%**	**22%**	**10%**	**5%**
55-64	**23%**	**17%**	**8%**	**3%**
REGION				
APAC	**49%**	**36%**	**17%**	**6%**
Europe	**27%**	**20%**	**9%**	**4%**
Latin America	**39%**	**30%**	**15%**	**5%**
Middle East & Asia	**36%**	**28%**	**12%**	**4%**
North America	**35%**	**27%**	**10%**	**6%**

We see large regional disparities in the adoption of voice technology. **Use of search ranges from 27% in Europe to 49% in APAC.** Most importantly, with its higher mobile penetration as well as young and affluent internet users, there's a wider openness to new tech in the APAC region generally. 6 in 10 here say having the latest technology is very important to them, versus just a third in Europe.

But for voice technology to achieve mainstream adoption, it needs to find better ways of monetization that go beyond paid features. In that respect, **voice assistants are poised to incorporate advertising or product recommendations in the near future to prove their worth**. But with a significant number of consumers already disillusioned with the state of advertising online, will they be receptive to commercial messaging delivered via voice assistants? This is a challenge that needs to be tackled, perhaps through **contextual targeting**, if the mistakes that originally led to ad-blocking are to be avoided.

Question: In the past month, which of the following things have you done on the internet via any device?
Source: GlobalWebIndex Q4 2018 – Q1 2019
Base: 278,359 Internet Users aged 16-64

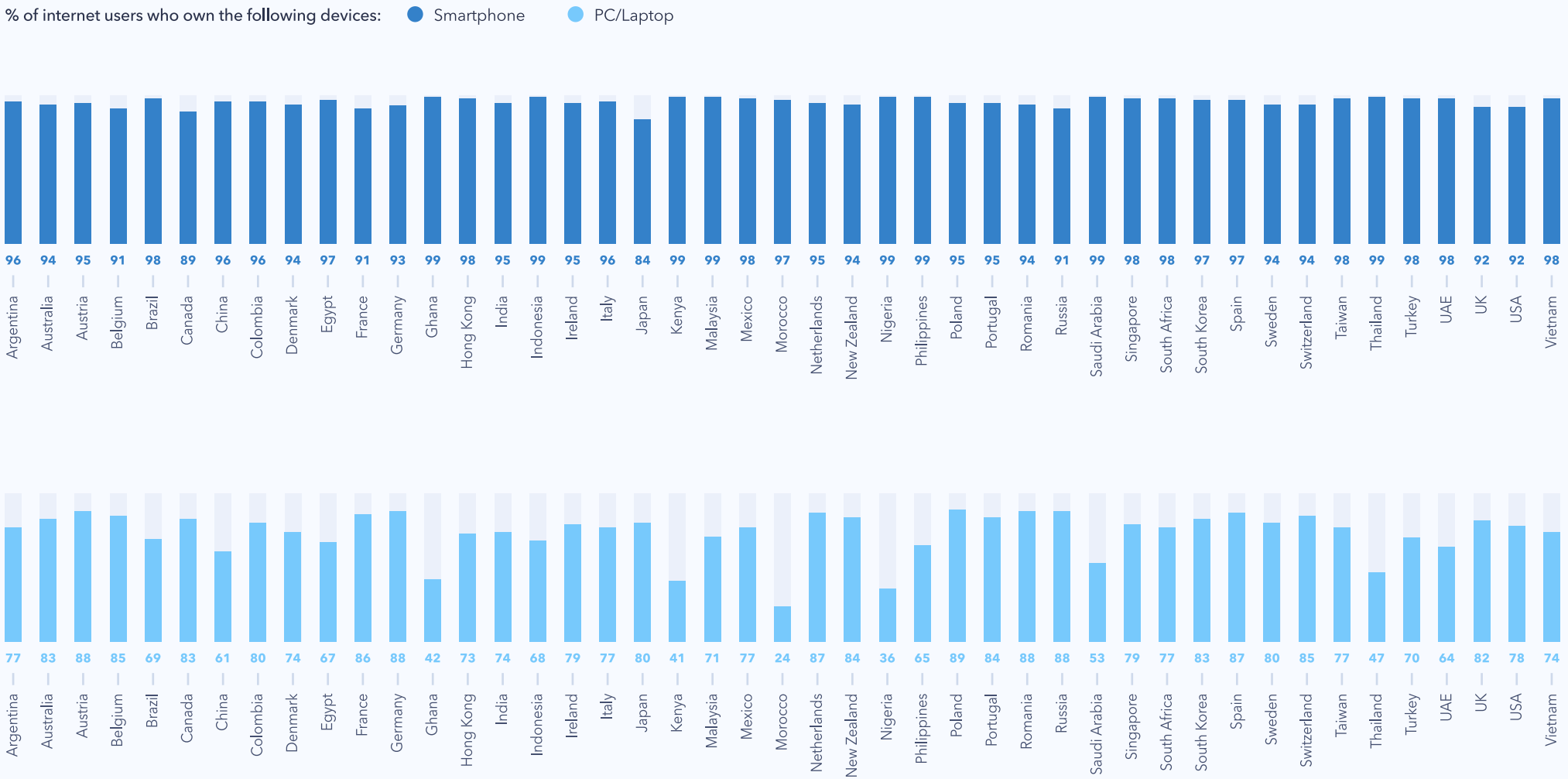
• TREND IN ACTION •

Amazon staying ahead of the curve by introducing Alexa in-skill purchasing

Amazon, Google and Apple are locked in a battle to dominate voice tech on the hardware side and are investing heavily into artificial intelligence. Looking to maximize profits from different streams, Amazon in particular, has a vested interest in making sure owners of smart speakers are using them to buy products on its proprietary retail platform.

To do this effectively, Amazon's long-running investments in different industries are now being connected through its foray into voice. And the opening up of "skill" and "command" building to third-party developers has helped to prove its usefulness in many areas of day-to-day lives. Alexa currently features 80,000 voice skills, with the latest development being the ability to make **in-skill purchases**. This was mainly introduced to give a monetary incentive to developers to continue making voice skills for the device. This means that there is now more than one way to generate revenue from voice apps – via in-skill purchasing and Amazon Pay for Alexa Skills.

Market Insights: Device Ownership Around the World



Market Insights: Device Ownership Around the World

Device

Device Usage Trends

PCs vs. Smartphones

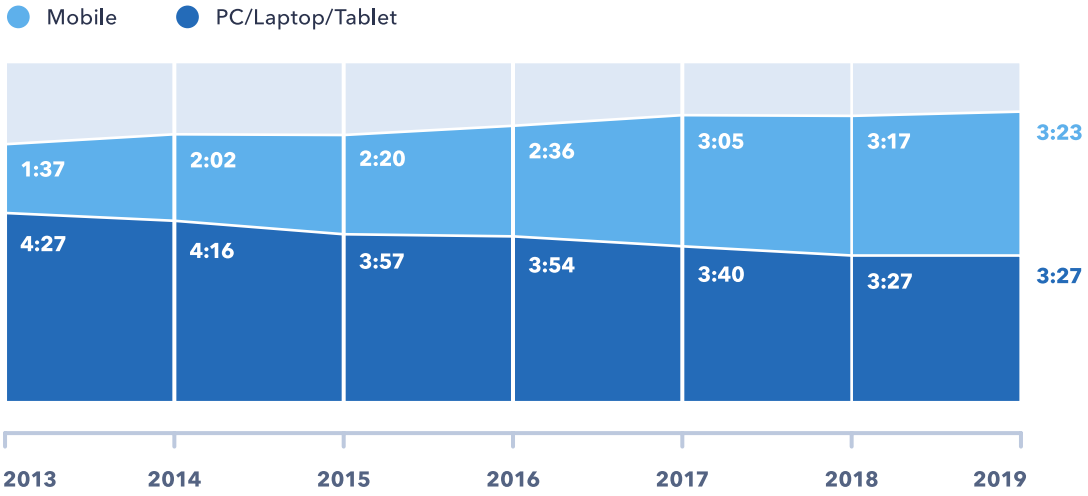
We've been talking about the **Mobile Tipping Point** for quite some time now, and we can finally say that we've reached it. Looking at the average time users spend on their devices every day, we can see that in 2019 **online adults spend around four minutes longer on mobiles than bigger-screen devices**. This means that daily online time is more or less equally divided between the two devices, but mobiles do take precedent.

However, with 3 hours 23 minutes spent on computers, mobile-only strategies shouldn't yet be the default. A likely scenario is that **PC/laptop usage will fall to a stable level that's sustained by productivity and demanding hobby use**, like professional use, gaming or picture editing.

The importance of desktops is especially prevalent when we focus on older demographics. **55-64s are still spending an hour and a half longer on devices other than their smartphones**. It isn't so much that they spend a lot of time online on their PCs though; in fact, they tune for around 20 minutes less than their younger counterparts, 16-24s. Rather, **this is largely driven by the low usage of mobiles among this group**, meaning that PCs command a relatively larger share of their device usage.

Daily Time Spent Online: PC vs Mobile

Average time spent online per day in h:mm on…



Share of Daily Time Spent on PC vs Mobile

27% 73% | 32% 68% | 37% 63% | 40% 60% | 46% 54% | 49% 51% | 50% 50%

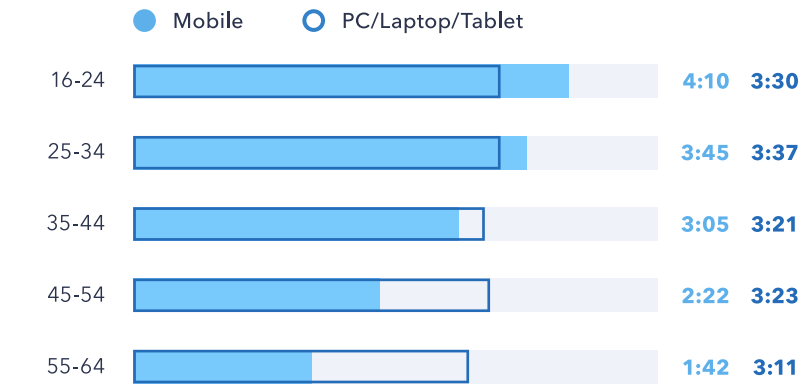
> Device choice is dictated by needs and context of usage.

Question: On an average day, how long do you spend online on a mobile/PC/laptop/tablet?
Source: GlobalWebIndex 2013 – 2019 (averages of all waves conducted in each year)
Base: 1,717,699 Internet Users aged 16-64

PCs vs. Smartphones: Time Spent Online

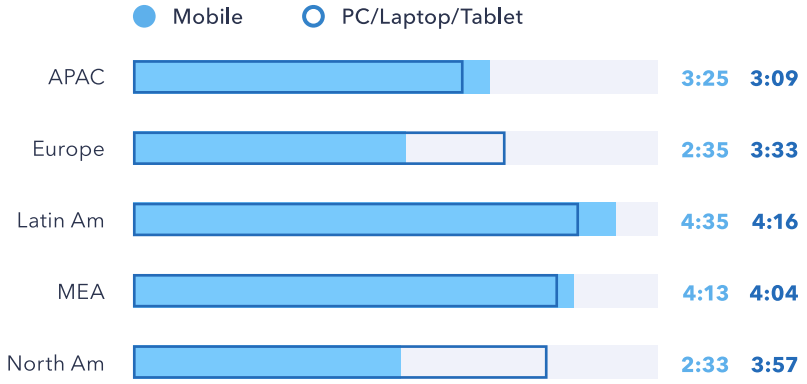
Daily Time Spent Online by Age

Average time spent online per day in h:mm on…



Daily Time Spent Online by Region

Average time spent online per day in h:mm on…



> Users vary in the importance they attach to their devices. Brands need a multi-device strategy to reach consumers across different demographics and regions.

It's important to take a regional perspective here as well. **Although the smartphone (unlike the PC) is universally owned across all regions we track, internet users in North America and Europe still spend longer on their computers.** This is mostly pronounced in the former, where online adults spend 61% of their online time on PCs every day.

All this being said, **speaking of a shift to mobile or mobile transition can be misleading**. Rather, people are spending more and more time online as they've added mobiles as another part of their life. Mobiles, tablets, e-readers have come in as second screens, much as TV supplemented cinemas, and cinemas supplemented radio and theater. Relative importance shifts, but all in all media consumption continues to rise – especially among higher income groups.

This means that while mobile usage may be cannibalizing time spent on computers to some extent, they should be seen more as a complementary screen serving a different purpose, and one which can be used on the go. But as smartphones have risen in importance, and they have become present in a wider range of contexts compared to stationary and big-screen units, more behaviors have become mobile-first.

Question: On an average day, how long do you spend online on a mobile/PC/laptop/tablet?
Source: GlobalWebIndex Q4 2018 – Q1 2019
Base: 278,359 Internet Users aged 16-64

Digital Wellbeing

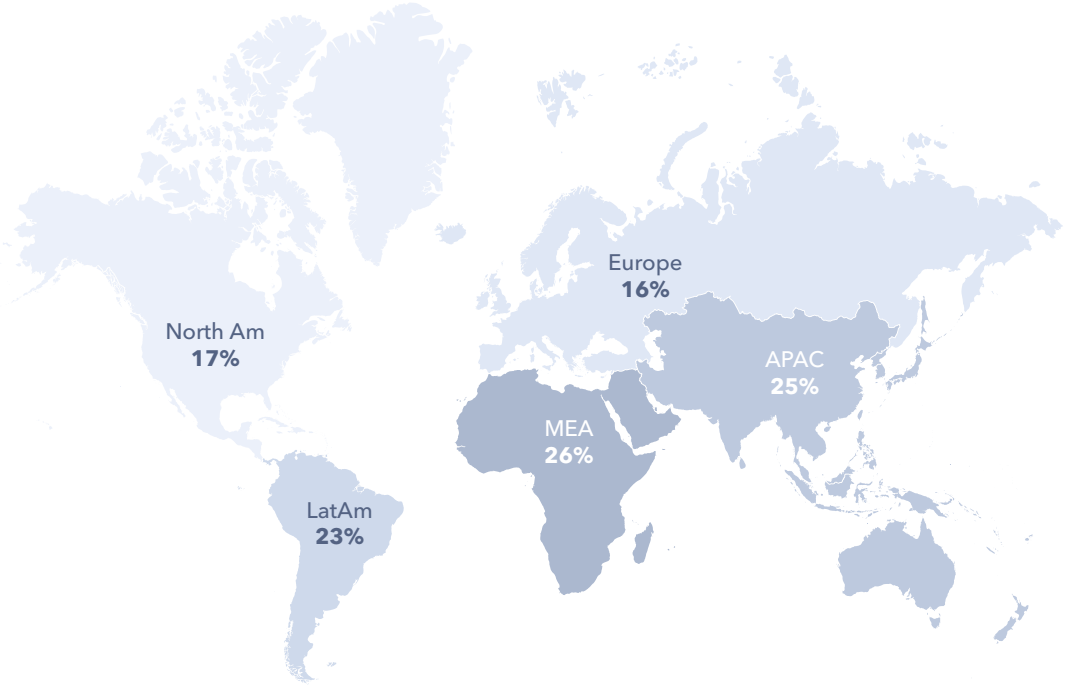
As we mentioned, the time people spend consuming digital media is only increasing with no prospect of a saturation point anytime soon. Globally, **online time has reached an average of 6 hours and 49 minutes per day** on computers, tablets, laptops and mobiles combined. This is around half an hour longer than what internet users were devoting three years ago. At the same time, device portfolios are also expanding, with **internet users owning an average of 3.4 different devices today**.

Inevitably, people are spending longer looking at screens, which has had implications for their health and wellbeing and they're becoming increasingly conscious of the perils of excessive use of technology. With so many devices and more and more time spent online, digital consumers are feeling the need to limit their screen time as a result. **23% have tracked their screen time or set limits for certain apps in the past month, rising to 28% among 16-24s.** And although this figure decreases with age, a substantial proportion (13%) of the 55-64s are still conscious of their screen time and have taken action to limit it.

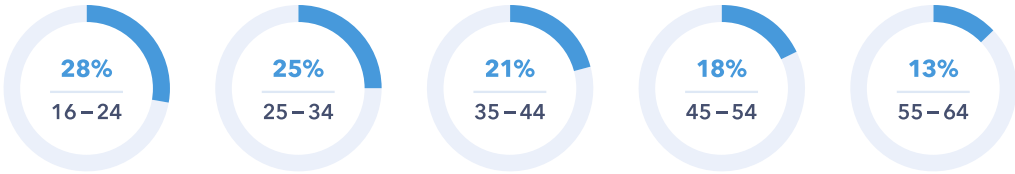
Unsurprisingly, regions characterized by fast-growth markets like **APAC and MEA, show the highest screen-time tracking figures**, as the mobile here has been long established as the primary device to go online, and is used for 3h 25m and 4h 13m every day, respectively.

Screen Time Tracking by Region

% of internet users who have tracked their screen time or set limits for apps in the past month



Screen Time Tracking by Age



Question: Which of these have you done on your mobile in the last month?
Source: GlobalWebIndex Q1 2019
Base: 139,397 Internet Users aged 16-64

PCs vs. Smartphones: Online Activities

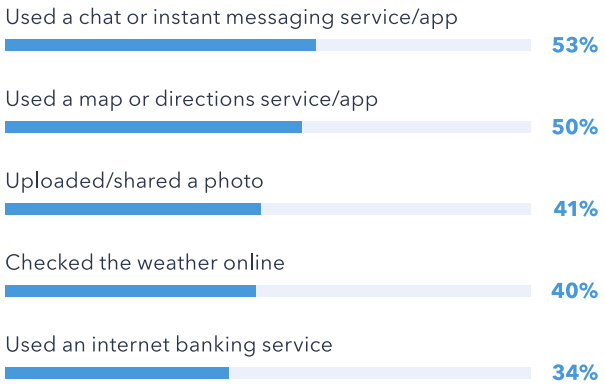
Top 10 Mobile-First Behaviors

% who have done the following on the internet in the past mont via…

	MOBILE	PC/LAPTOP	%-POINT DIFFERENCE
Used a chat or instant messaging service/app	86%	34%	52
Used a map or directions service/app	73%	26%	47
Uploaded/shared a photo	60%	27%	33
Checked the weather online	61%	31%	30
Watched a video clip or visited a video-sharing site	85%	60%	25
Uploaded/shared a video	47%	23%	25
Used an app/website to order hot/take-away food for delivery	40%	16%	24
Used an internet banking service	57%	34%	23
Used a VoIP or other service to make phone calls over the internet	36%	14%	21
Visited a news website/app/service	68%	47%	20

Top 5 Mobile-Only Behaviors

% who have done the following online activities exclusively in the last month



> All online behaviors we track are now mobile-first.

Today, all of our 35 online activities surveyed are more commonly undertaken on mobile devices. **Social media related behaviors are firmly mobile-first and are increasingly becoming mobile-only.** There's a 52-percentage-point difference in chat-app usage between mobiles (86%) and PCs (34%) and 53% report doing this activity exclusively on their mobiles. This is primarily due to smartphones allowing consumers to dip in and out of different messaging apps whenever and wherever they please. Mobile figures are also strong for behaviors like using maps, banking services, and engaging with videos – with many most likely doing these things while on the move.

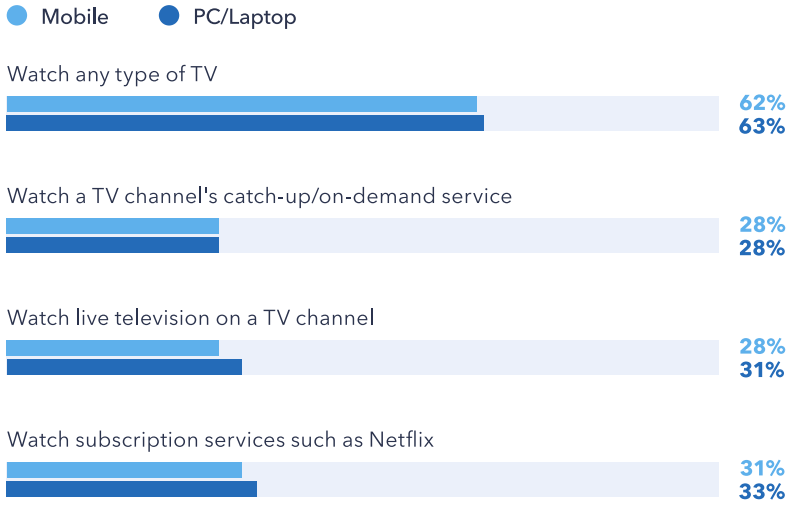
Looking at older demographics reveals a different picture though. 55-64-year-olds are still more likely to conduct most commercial activities, like purchasing products online or visiting retail stores, predominantly on a computer. **Tablets are also a prominent device for this group. They're more likely to choose tablets over PCs and mobiles to post reviews about products and to watch sports coverage online.**

Question: In the past month, which of the following things have you done on the internet via any device?
Source: GlobalWebIndex Q4 2018 – Q1 2019
Base: 230,366 Internet Users aged 16-64

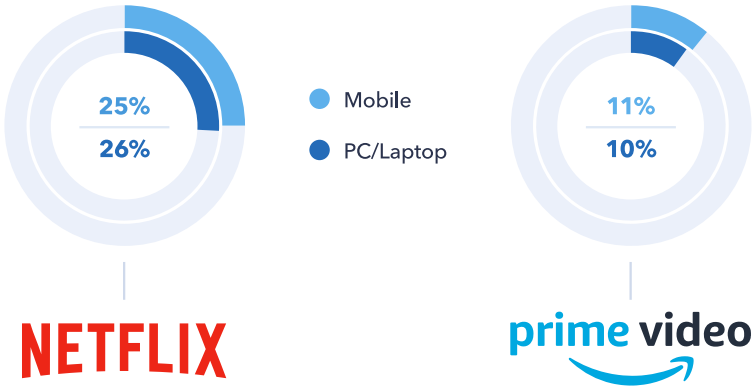
PCs vs. Smartphones: Engagement with TV

TV Behaviors by Device

% of internet users who have done the following in the past month



% of internet users outside China who have watched these services on the following devices in the past 30 days



> Globally, mobiles have reached near parity with PCs as the go-to device for TV watching.

Mobiles are now at the center of most entertainment behaviors as well. They have reached near parity with PCs for watching TV, and the gap between the two devices is likely to continue growing in favor of smartphones.

This is, in part, due to the growing adoption of streaming sticks (as illustrated in the chart on **page 5**) and the role they've played in enabling mobiles to serve yet another purpose, namely as TV devices. Sticks like Google's Chromecast allow users to share almost anything – films, personal photos, YouTube videos, Netflix shows and more – to their TV. **Today, 15% of online adults own a streaming stick, and 29% have watched content on a TV by casting it via their phone in the past month.**

Globally, watching streaming services like Netflix has also turned to a mobile-first activity, but this trend doesn't hold on a regional level. **Internet users in all regions, except for APAC, are still more likely to watch subscription services on their PCs than on mobiles.** This is especially the case in Europe and North America, where PCs still command a nine-percentage-point lead over mobiles. In Latin America, they have reached near parity, while in Asia Pacific mobiles are eight-percentage points ahead of computers for this activity. Looking at engagement with Netflix and Amazon Prime Video outside China, we see that there are minimal differences between the two devices. However, **online adults in MEA are more likely to watch Amazon's service on phones than PCs, while watching Netflix remains a computer-first activity here.**

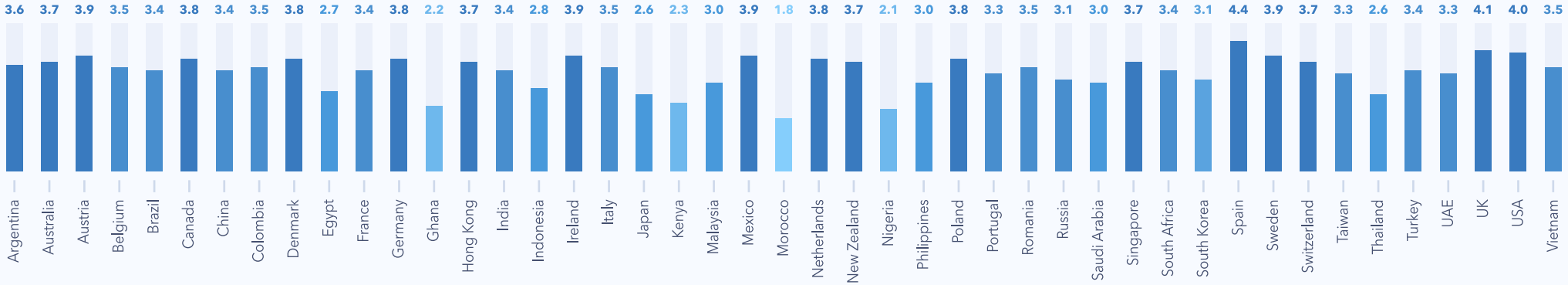
Question: In the last month, which of these services have you used to watch / download TV shows, films or videos?
Source: GlobalWebIndex Q4 2018 – Q1 2019
Base: 119,139 internet users aged 16-64 and 110,625 internet users outside China aged 16-64

Market Insights: Device Usage Around the World

TIME SPENT ONLINE ON: Mobile (h:mm) PC/Laptop/Tablet (h:mm)

	Mobile	PC/Laptop/Tablet
Argentina	4:35	4:16
Australia	2:05	3:20
Austria	2:17	3:15
Belgium	1:51	3:16
Brazil	4:56	4:20
Canada	2:22	3:36
China	3:17	2:48
Colombia	4:34	4:14
Denmark	1:55	2:59
Egypt	4:04	3:55
France	1:45	3:15
Germany	1:51	2:59
Ghana	4:04	–
Hong Kong	3:11	3:27
India	3:32	3:27
Indonesia	4:35	3:41
Ireland	2:37	3:26
Italy	2:31	3:20
Japan	1:28	2:40
Kenya	4:24	–
Malaysia	4:25	3:46
Mexico	4:02	4:11
Morocco	3:11	–
Netherlands	1:59	2:44
New Zealand	2:28	3:38
Nigeria	4:48	–
Philippines	5:05	4:53
Poland	2:39	3:38
Portugal	2:55	4:00
Romania	3:21	4:20
Russia	2:59	4:18
Saudi Arabia	3:54	3:26
Singapore	3:10	3:59
South Africa	4:06	4:43
South Korea	2:37	2:52
Spain	2:24	3:10
Sweden	2:30	3:23
Switzerland	2:08	3:20
Taiwan	3:44	4:14
Thailand	5:05	3:57
Turkey	4:16	3:24
UAE	3:56	3:50
UK	2:16	3:35
USA	2:34	3:59
Vietnam	3:12	3:39

AVERAGE NUMBER OF DEVICES OWNED



Device

The Mobile Marketplace

Length of Mobile Ownership

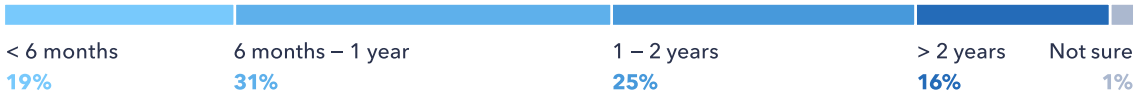
Despite the constant release of new handset models, most consumers are upgrading at a relatively leisurely pace. But this is a trend mostly associated with regions characterized by mature markets. **25% of internet users in North America have had their mobile longer than two years, for example, compared to just 14% in APAC and LatAm.**

Fast-growth markets and regions hold the key to renewed smartphone sales for phone manufacturers. **Economic and population growth as well, as well as growing internet penetration rates, have increased the urgency of reaching mobile consumers in China, where global brands are facing strong competition from local providers.** Internet users here are also among the most likely to be in the market for a new phone in the next year (73%).

> Mobile adoption has reached its saturation point in Europe and North America and around a quarter have had their mobile for over two years.

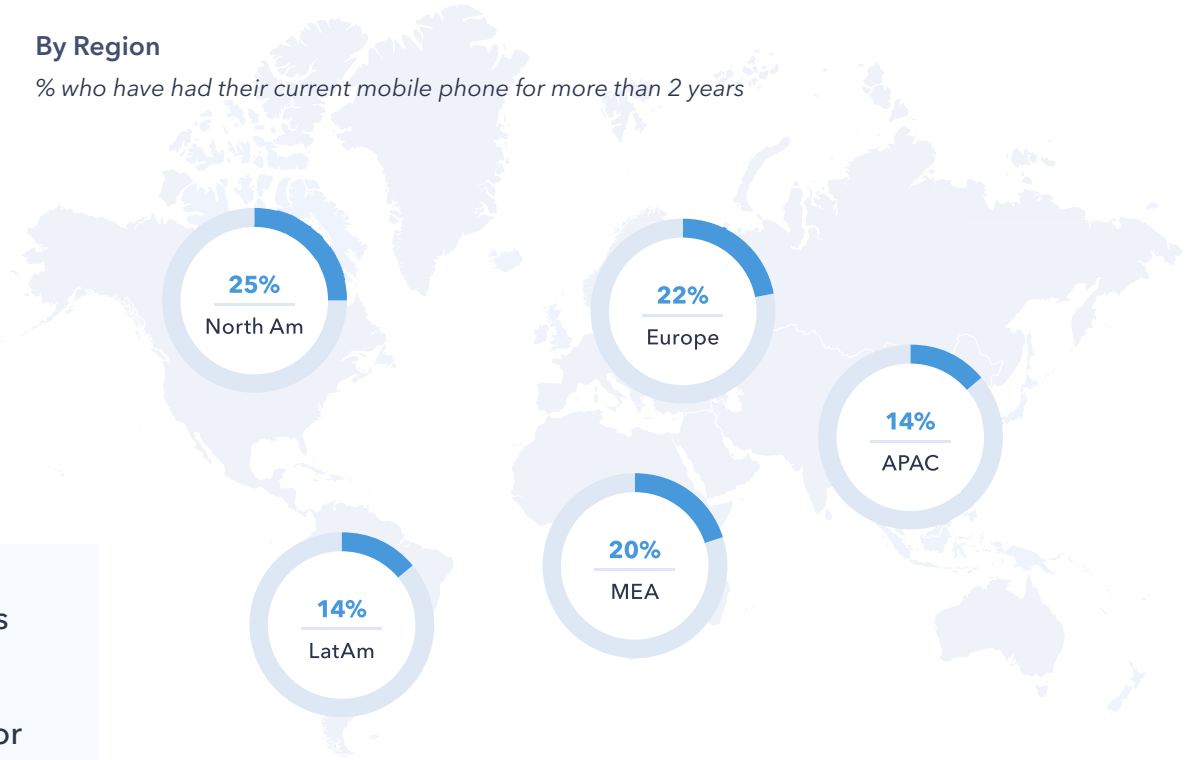
Length of Mobile Ownership

% who say they have had their current mobile phone for…



By Region

% who have had their current mobile phone for more than 2 years

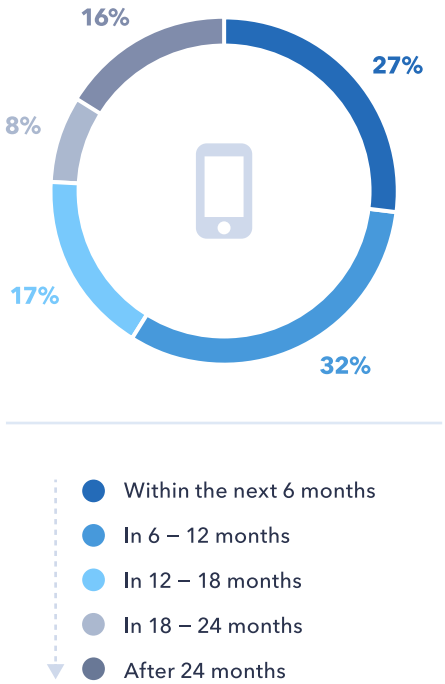


Question: How long have you had your current mobile phone for?
Source: GlobalWebIndex Q4 2018 – Q1 2019
Base: 230,366 Internet Users aged 16-64

Mobile Upgrade Cycle

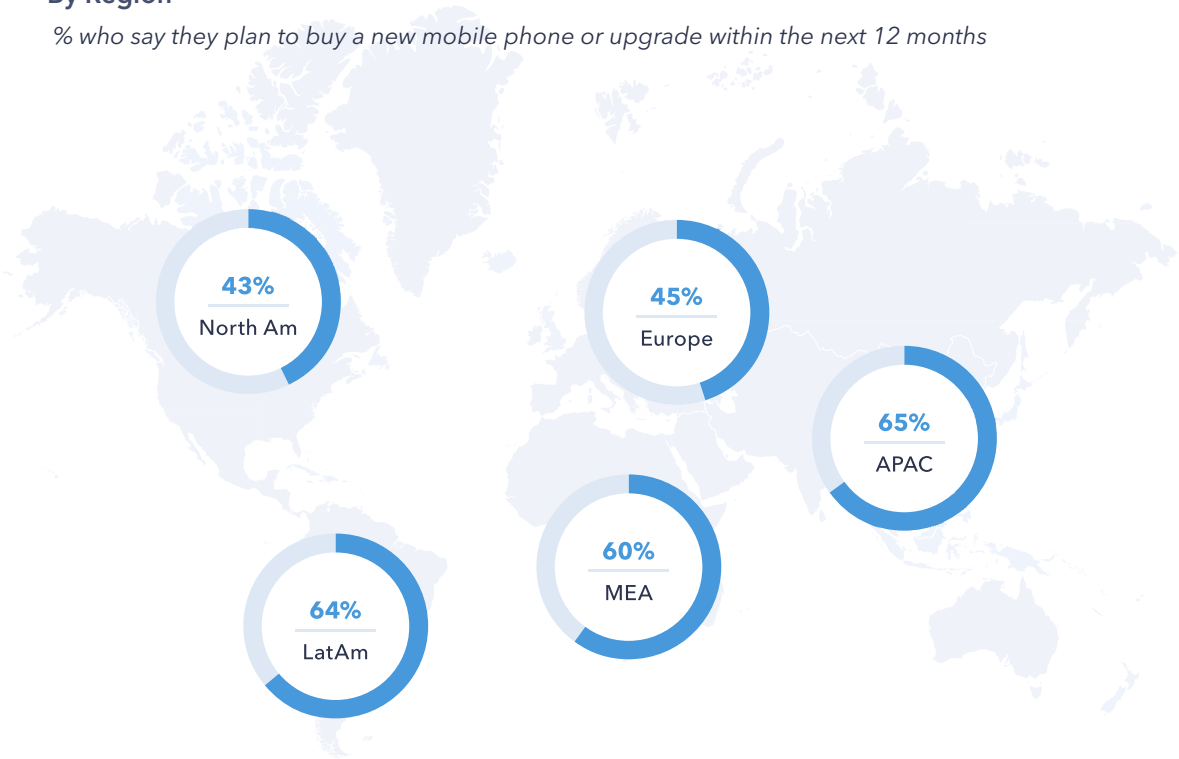
Mobile Purchase Timeframe

% who say they plan to buy a new mobile phone or upgrade their existing phone…



By Region

% who say they plan to buy a new mobile phone or upgrade within the next 12 months



TOP 5 MARKETS

China	73%
Mexico	68%
Nigeria	67%
Vietnam	67%
Colombia	65%

At any given time, **around 3 in 10 digital consumers are planning to upgrade or buy a new phone within the next 6 months**. Men are slightly more likely than women to say so, as are 25-34s and those in the top income quartile.

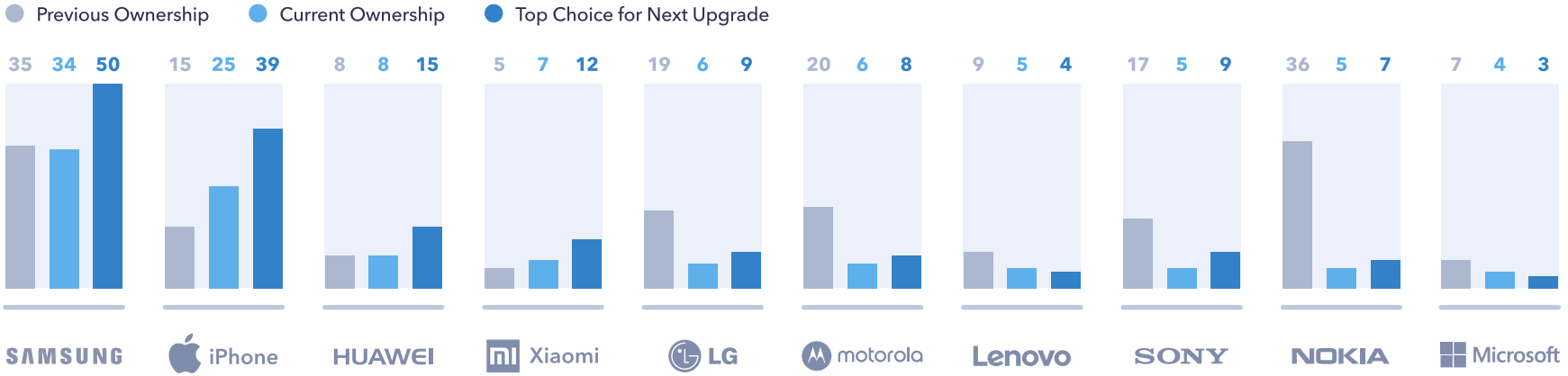
The regional data confirms the slow upgrade cycles in North America and Europe. Only 43% of users in the former plan to purchase a new phone in the next year, versus 65% in APAC. **In markets with high internet penetration and smartphone adoption rates, efforts need to focus on giving upgraders good enough reasons to trade in their existing handsets.**

Question: When do you plan to buy a new mobile phone or upgrade your existing phone?
Source: GlobalWebIndex Q4 2018 – Q1 2019
Base: 278,359 Internet Users aged 16-64

Handset Brands

Top 10 Mobile Handset Brands

% outside China who have owned, own and want to own the following handset brands



Samsung is still the most popular handset brand, but Apple has made some real headway here. While adoption of the former outside China has been steady since 2015, ownership of the latter has risen by six percentage points in the same timeframe, when in 2015, 34% owned a Samsung versus 19% who had an iPhone.

It's important to note that with its relatively cheap price tags, **Huawei and Xiaomi have also managed to race ahead, taking third and fourth place respectively**, even outside their home market – China.

Looking at specific handset models, we can see that **relatively older versions like the iPhone 6s remain prominent**, with 13% of iPhone owners outside China having it. This reflects consumers' tendency to wait 1-2 years before upgrading to a newer model. However, even though adopted by only 8%, the X model has managed to outpace the 8, showing the amount of excitement that Apple created around its 10-year anniversary model.

Samsung's most prominent model today is the Galaxy J5 owned by 8% of Samsung owners outside China, while the Galaxy S9 remains somewhat behind at 5%.

For purchase intention, Samsung is again far ahead of Apple, with half of internet users outside China considering it as their top choice for next upgrade. On a market-level, users seem consistent in their choices for current ownership and future upgrade, with the exception of Egypt where the top handset brand owned at the moment is Samsung, but a higher share of users say they'd prefer iPhone for future upgrade.

Apple also seems to have a slightly more loyal consumer-base than Samsung. 85% of iPhone owners say they would upgrade to another iPhone, compared to 81% of Samsung owners who say the same about Samsung.

Question: Which of the following mobile brands have you previously owned? // Which of the following mobile brands do you currently own? // Which brand(s) would be your top choice when you next upgrade or buy a new phone?
Source: GlobalWebIndex Q4 2018 – Q1 2019
Base: 247,879 Internet Users aged 16-64 outside China

The Mobile Market in China

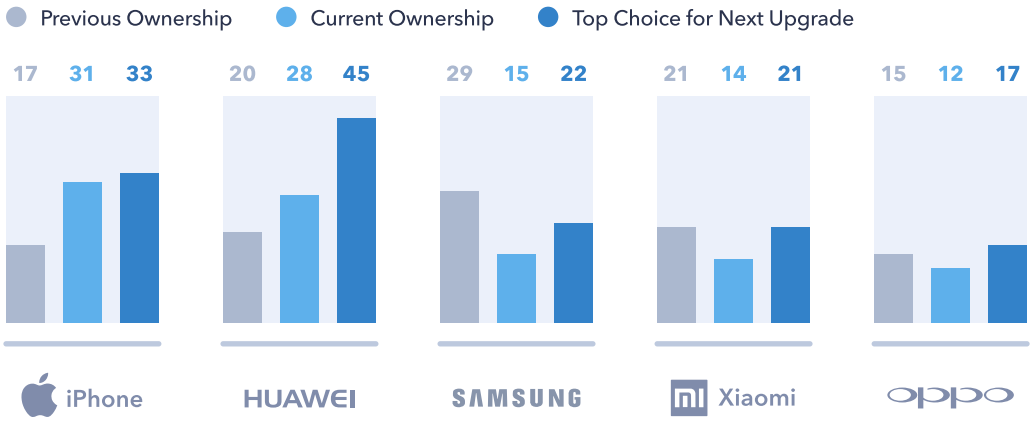
Chinese brands like Huawei and Xiaomi have considerably increased their market share on a global scale. **Today, a full 14% of global internet users own a Huawei phone, with an additional 24% considering buying one.** Although Huawei has been bolstered by Chinese government efforts to support domestic brands, expansion hasn't only been limited to the mainland.

However, **this expansion and the brand's close links with the Chinese government haven't been met favorably by Western governments**. After the U.S. government **banned** U.S. companies from doing business with Huawei, the future of the brand in the West remains uncertain. Following this decision, Google moved on to effectively **ban** Huawei from access to key Android apps, while Microsoft **removed** Huawei's MateBook X Pro from its store shelves.

Within China, the iPhone is still more popular than Huawei for current ownership, but this is reversed when we look at what phone consumers want in the future. Apple has had big ambitions for the Chinese market – where a mobile-first, affluent middle-class internet population has become a key target, but as reported by **Bloomberg**, blowback from Trump's Huawei ban could cost Apple around 3-5% of its iPhone sales in China over the next year.

Top 5 Mobile Brands in China

% in China who have owned, currently own and want to purchase the following handset brands



> Huawei is about to replace the iPhone as the top mobile brand for current ownership in China.

Question: Which of the following mobile brands have you previously owned? // Which of the following mobile brands do you currently own? // Which brand(s) would be your top choice when you next upgrade or buy a new phone?
Source: GlobalWebIndex Q4 2018 – Q1 2019
Base: 30,480 Internet Users in China aged 16-64

What it takes to upgrade

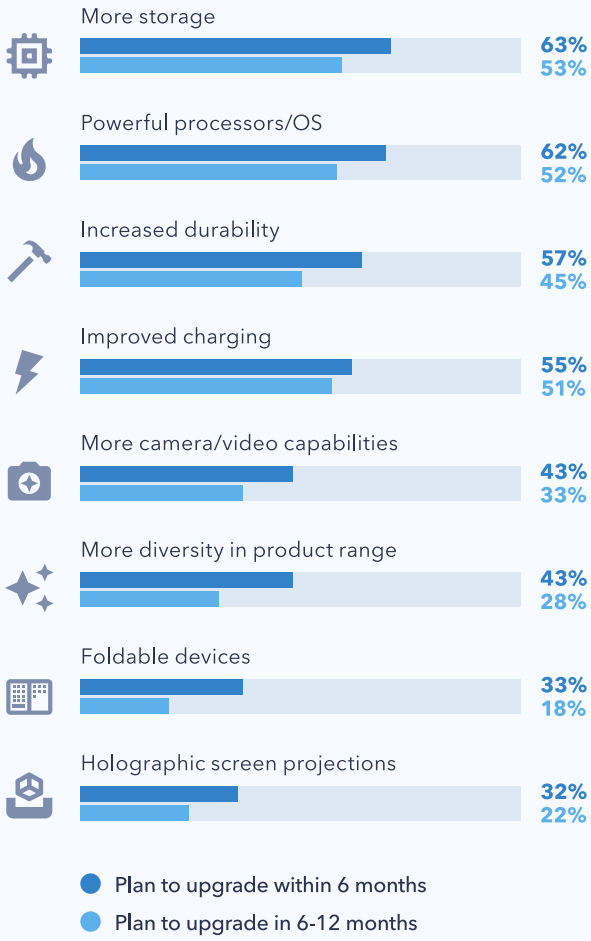
The next generation mobile phone network is already here, with **Ericsson** estimating that 5G networks are set to cover more than 40% of the world's population by 2024. **5G connectivity promises to revolutionize not only smartphone capabilities, but also the capabilities of any other connected device, be that a watch, a car or a household appliance.** The major mobile brands have already **launched** their 5G smartphones, while **5G powered** laptops are just around the corner.

A bespoke study we ran in December last year shows the majority of consumers in the UK and the U.S. intend to switch to a 5G network on their smartphone, with **nearly 4 in 10 saying they'll switch as soon as one becomes available**.

Against the backdrop of longer handset upgrade cycles and with **90% of consumers here saying that the latest smartphone models are too expensive**, manufacturers need to position themselves on the leading edge of the industry to capture consumer attention, justify prices and maintain an image of innovation.

Future Smartphone Features

% the U.S. and the UK who say they want to see the following features in upcoming smartphones



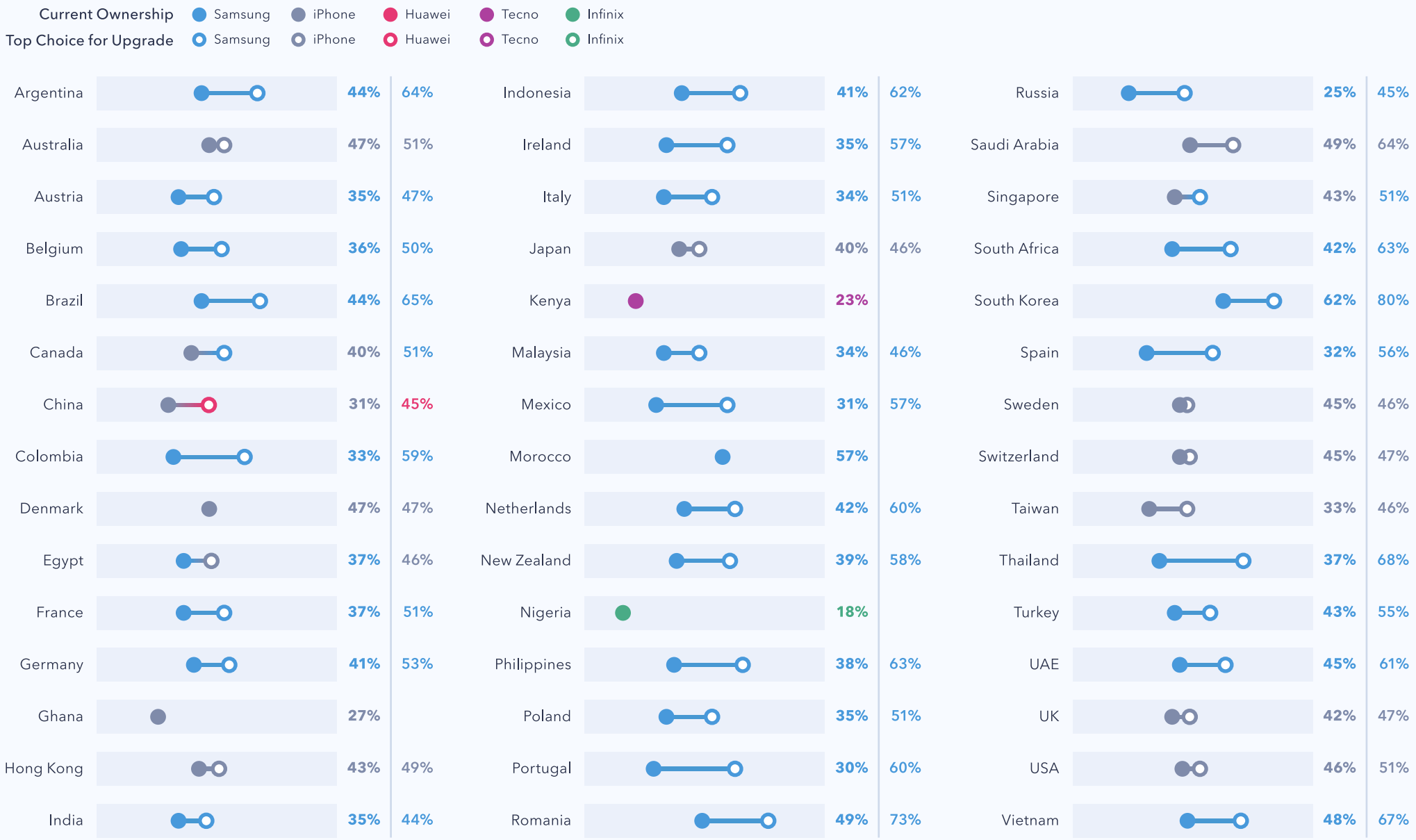
Upcoming smartphone ranges promise to take smartphone **capabilities** to a new level. **Sony** is reportedly working on a 5G foldable Xperia F phone in efforts to stay competitive with Samsung's Galaxy Fold – a nearly $2,000 foldable smartphone – whose release was delayed due to early issues. Meanwhile, **Huawei** has also announced a foldable phone costing around $2,600.

Our research shows that foldable devices are important for consumers in the UK and the U.S. who plan to upgrade soon. **A third of those who plan to upgrade within 6 months and almost a fifth of consumers planning an upgrade in the next year say they'd like to see foldable phones coming next.** Holographic projections is another feature that 32% of 6-month upgraders and 22% of yearly-upgraders, would like to see in upcoming smartphone devices.

And while consumers don't necessarily know what the benefits or use cases of these features are, we can see that this doesn't mean there isn't a market for them.

Question: What features would you most like to see in upcoming smartphone devices?
Source: GlobalWebIndex December 2018
Base: 1,421 (U.S.A.) & 1,610 (UK) Internet Users aged 16-64

Market Insights: Mobile Brands Around the World



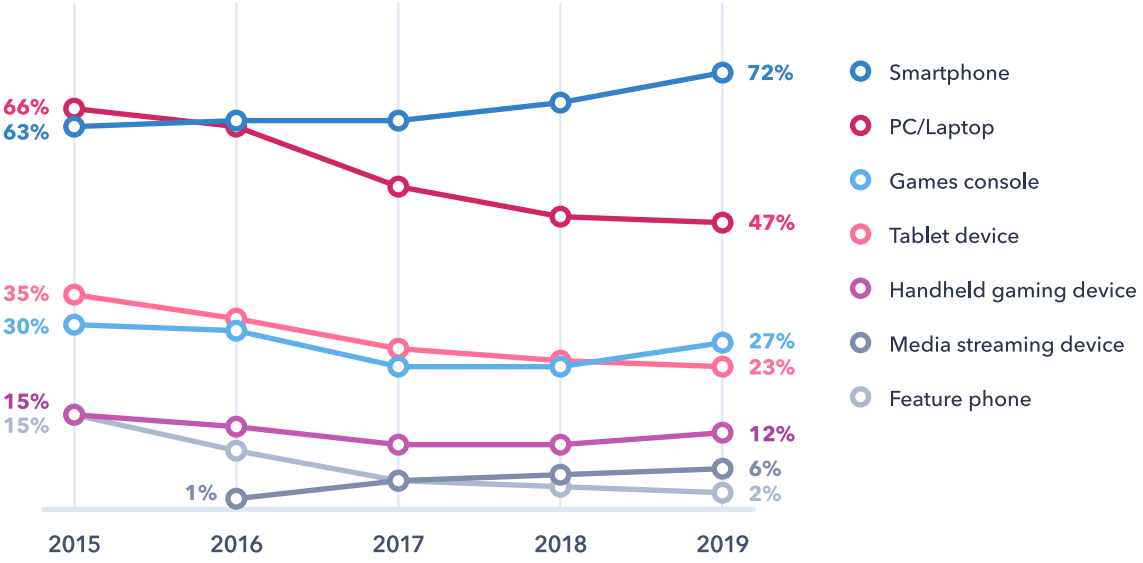
Device

Entertainment Devices

Gaming Devices

Gaming Devices Over Time

% who use the following devices to play games



Smartphones are now significantly ahead of other devices online adults use for gaming globally. In the beginning of 2019, 72% of consumers said they use their smartphones to play games, up by nine percentage points since 2015.

This shift has progressed particularly in the key Asian markets, where console and handheld device gaming never reached the same level of penetration compared to other regions. **Even today, after the decrease of console gaming, we still see a 10-percentage-point gap between APAC (23%) and North America (33%).**

Question: Which of these devices do you use to play games?
Source: GlobalWebIndex 2015-2019 (averages of all waves conducted in each year)
Base: 809,605 Internet Users aged 16-64

• TREND IN ACTION •

Is there choice fatigue in mobile gaming?

'Choice fatigue' is seen as a well-known phenomenon in psychology and economics. The phrase describes the negative psychological, emotional, and behavioral effect of having too many options to choose from.

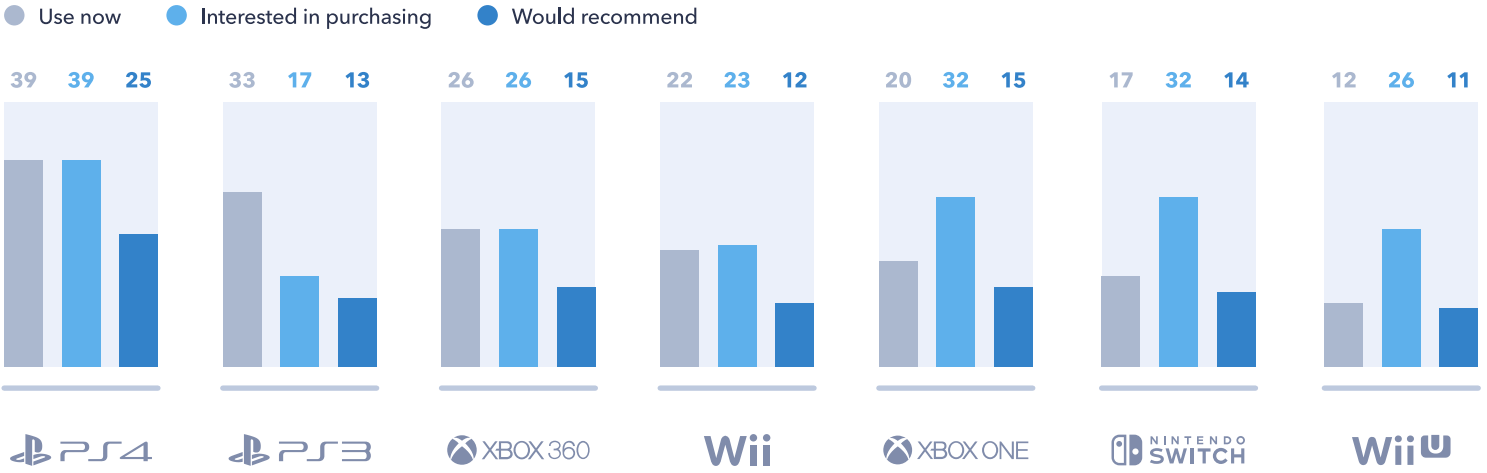
Mobile **gaming** has become so mainstream that the challenge has moved on from how to get people playing their games on their smartphones. Instead, it lies in figuring out how to provide more compelling content, and above all, how to monetize it. A quick browse on a mobile app store will reveal the wealth of options when it comes to mobile gaming, and the lion's share are free-to-play. The abundance of choice is manifested in players' behavior and preference: just 17% of our global audience have paid for a mobile game in the past month.

In response to this trend, **Samsung** is entering into a *"multi-year strategic partnership"* with AMD via which the smartphone brand will introduce advanced graphics technologies and solutions in order to enhance innovation across mobile applications. In particular, the aim is to bring AMD's Radeon graphics architecture to Samsung's smartphones and revolutionize the mobile gaming experience.

Console Brands

Console Brands

% of console gamers who own/are interested in purchasing/would recommend the following console brands



Console gamers see a higher representation among 25-34-year-old internet users (36%), and mid (48%) to high-income (29%) groups. They're most likely male (60%), but **with 40% being female users, gaming consoles certainly aren't exclusively used by men**. And while we're seeing a decline in male console gaming, female representation has been growing since the beginning of 2018.

Video games have traditionally been targeted towards men, with women and ethnic minorities being largely **under-represented** in gaming. However, **this approach is now outdated and targeting in this way is likely to mean gaming companies are missing out on great numbers of potential consumers**.

PlayStation 4 remains the strongest console brand in the three categories we track – current usage, future purchase and advocacy. It's also the most prominent brand in 37 of our 45 tracked markets, with highest penetration among console gamers in Saudi Arabia (65%).

Question: Which of these devices do you use for gaming? Which would you be interested in purchasing? Which would you recommend to others?
Source: GlobalWebIndex Q4 2018 – Q1 2019
Base: 35,027 Console Gamers aged 16-64

• TREND IN ACTION •

Microsoft and Sony teaming up to join the battle for cloud gaming dominance

Amazon, Microsoft, Sony and Google are in the midst of an intense battle for dominance in the cloud gaming market. Amazon has kept rather more quiet about its ambitions, although we could see the release of games on a new service as early as 2020. Google, on the other hand, is releasing **Stadia** this year – its new cloud gaming platform that will stream video games across a wide variety of devices. Stadia will come with its dedicated game controller, which would link to multiple devices.

Meanwhile, the two rivals, Sony and Microsoft, decided to **team up** and develop new cloud solutions for Microsoft's Azure, where Sony will host some of its game services. This partnership doesn't mean that the companies are abandoning consoles though. Sony already revealed some details about **PlayStation 5**, while Microsoft is reportedly planning to **launch** a cheaper cloud-based version of the Xbox One.

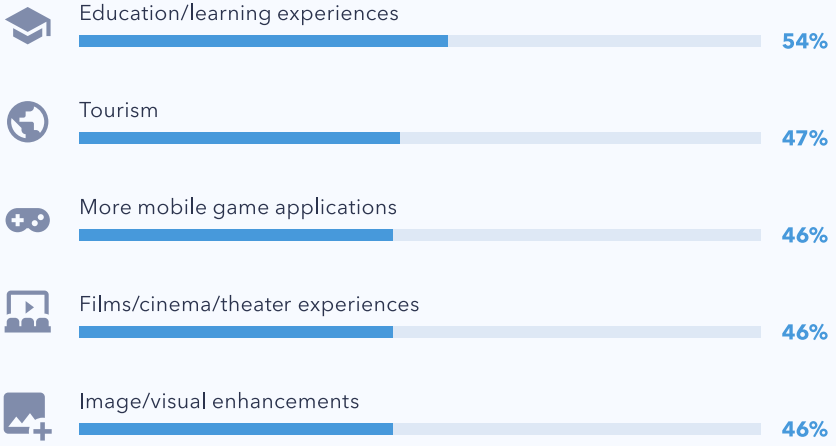
Will AR & VR go mainstream?

Prices are lowering and wires are disappearing – **VR standalone headsets are set to grow and there's more companies like Oculus getting in on the action**. Offering premium experiences at a more affordable price, without the need for a high-end PC or smartphone, it was these untethered headsets that caused VR headset sales to **rebound** in the last quarter of 2018, per IDC's statistics.

AR and VR technology usually attracts similar audiences: they're typically young, male, affluent, and tech-savvy. In a bespoke **study** we conducted in January 2019, we found that **around 50% of internet users in the UK and the U.S. have used AR/VR technology**. However, AR and VR content can come in many forms, and this could be a cause for confusion. There's still not much clarity over whether consumers are aware these tools are available to them, or if they realize they're engaging with AR or VR when they use them. In fact, **12% of online adults have used AR without knowing**.

Top 5 AR Features

% of AR users in the UK and the U.S. who say they most like to see AR applied to the following

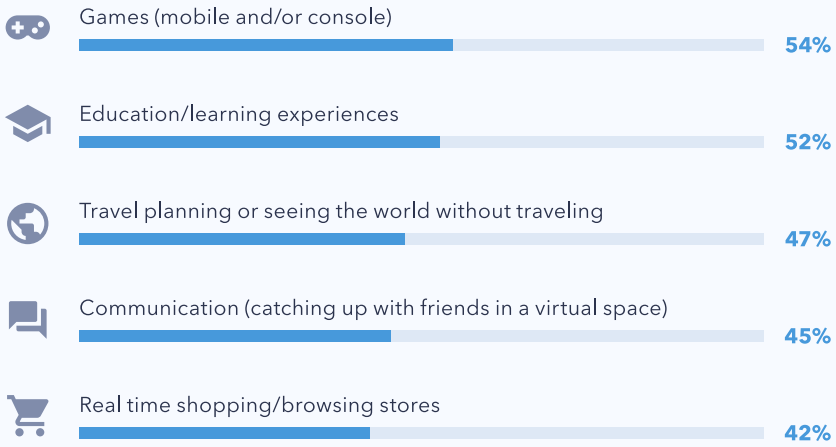


Question: Which of the below would you like to see augmented reality or AR more applied to?
Source: GlobalWebIndex January 2019
Base: 1,313 AR Users and 1,254 VR Users aged 16-64 in the UK and the U.S.

Will AR & VR go mainstream?

Top 5 VR Features

% of VR users in the UK and the U.S. who say they most like to see VR applied to the following



> 54% of users excited about VR in the UK and the U.S. say it's because they could visit places and see things they normally couldn't.

So far these technologies (especially VR) have been primarily associated with **gaming**, and **this category does outscore any other use of AR/VR**, with other forms of entertainment like films or documentaries lagging behind. But the first step towards mainstream adoption of a digitally-forward technology would be to expand its user-base and open up new revenue streams beyond what's "default", or in this case, gaming.

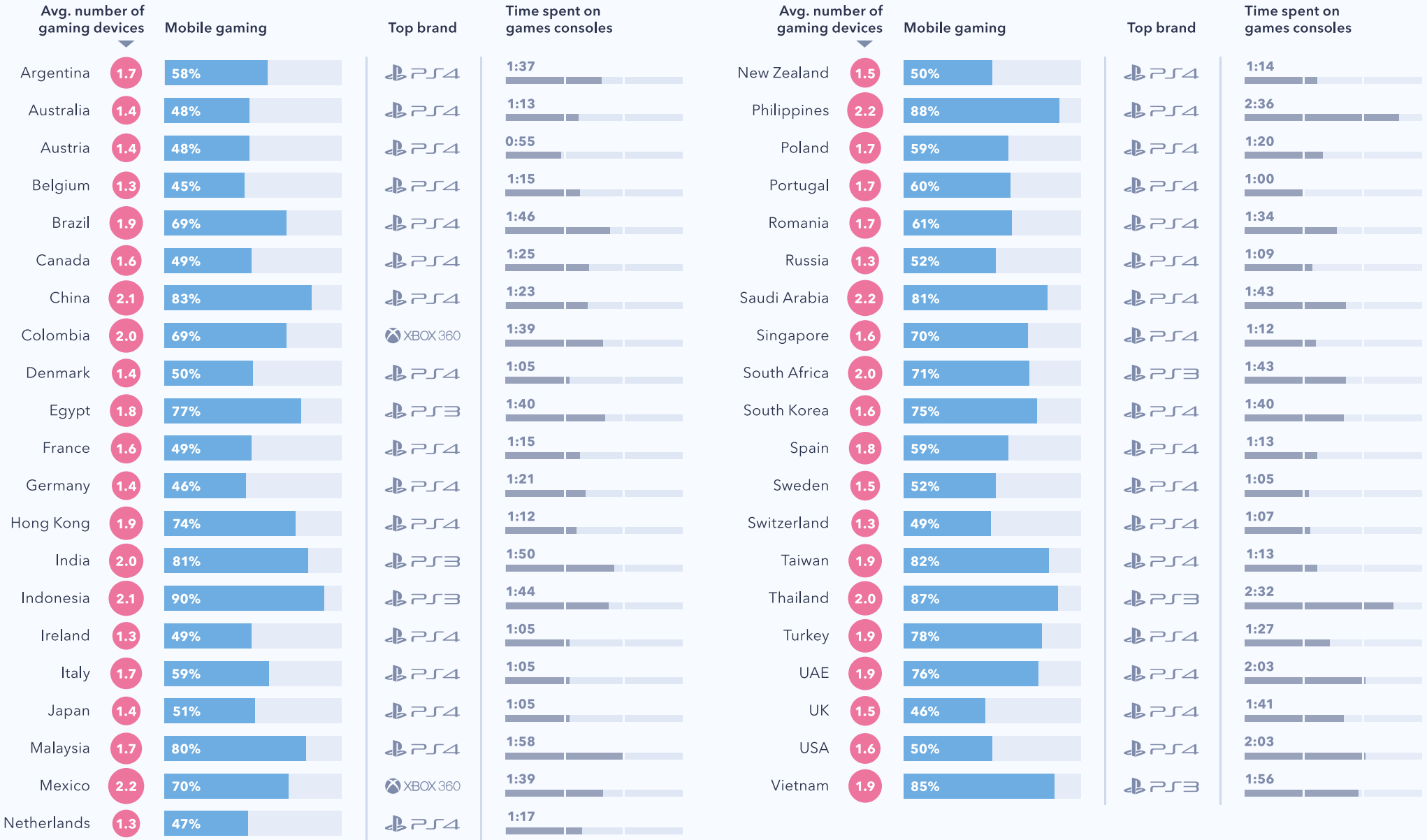
And our data shows that there's plenty of scope for expansion beyond entertainment, with **education and tourism/travel proving particularly fruitful routes**. For AR users, education ranks as the first feature they'd like to see being applied to AR tech, which is also the second-most prominent VR feature, cited by over half of users.

VR and AR have already been applied to many spheres of education from **pre-school** to **vocational** and **higher** education, and the market continues to expand. Irish virtual reality company **Immersive VR Education**, for example, has secured a three-year deal with South Korean immersive digital content company D'Carrick to create educational programmes in the country.

With consumers increasingly conscious of their environmental impact, these technologies could also be the best way to experience destinations that would otherwise struggle to cope with the demand. Manufacturers can unlock more sales from consumer groups that have so far resisted the call of the technology. Meanwhile, travel brands that can deploy VR in their marketing strategies will know they're using the tech in a way that resonates with consumers. With multiple parties at play, **perceptions of VR/AR capabilities in general can potentially change, resulting in greater adoption**.

Question: Which of the below would you like to see augmented reality or VR more applied to?
Source: GlobalWebIndex January 2019
Base: 1,313 AR Users and 1,254 VR Users aged 16-64 in the UK and the U.S.

Market Insights: Gaming Devices Around the World



Notes on Methodology

All figures in this report are drawn from **GlobalWebIndex's online research among internet users aged 16-64**. Please note that we only interview respondents aged 16-64 and our figures are representative of the **online** populations of each market, not its total population.

OUR RESEARCH

Each year, GlobalWebIndex interviews over 575,000 internet users aged 16-64 across 46 markets. Respondents complete an **online questionnaire** that asks them a wide range of questions about their lives, lifestyles and digital behaviors. **We source these respondents in partnership with a number of industry-leading panel providers.** Each respondent who takes a GlobalWebIndex survey is assigned a unique and persistent identifier regardless of the site/panel to which they belong and **no respondent can participate in our survey more than once a year** (with the exception of internet users in Egypt, Saudi Arabia and the UAE, where respondents are allowed to complete the survey at 6-month intervals).

OUR QUOTAS

To ensure that **our research is reflective of the online population in each market**, we set appropriate **quotas on age, gender, and education** – meaning that we interview representative numbers of men vs women, of 16-24s, 25-34s, 35-44s, 45-54s and 55-64s, and of people with secondary vs tertiary education.

To do this, we conduct research across a range of international and national sources, including the World Bank, the ITU, the International Labour Organization, the CIA Factbook, Eurostat, the US Bureau of Labor Statistics as well as a range of national statistics sources, government departments and other credible and robust third-party sources.

This research is also used to calculate the 'weight' of each respondent; that is, approximately how many people (of the same gender, age, and educational attainment) are represented by their responses.

MOBILE SURVEY RESPONDENTS

From Q1 2017 on, GlobalWebIndex has offered our Core survey on mobile. This allows us to survey internet users who prefer using a mobile or are mobile-only (who use a mobile to get online but do not use or own any other device). Mobile respondents complete a shorter version of our Core survey, answering 50 questions, all carefully adapted to be compatible with mobile screens.

Please note that the sample sizes presented in the charts throughout this report may differ as some will include both mobile and PC/laptop/tablet respondents and others will include **only** respondents who completed GWI's Core survey via PC/laptop/tablet. For more details on our methodology for mobile surveys and the questions asked to mobile respondents, please download this **document**.

GLOBALWEBINDEX SAMPLE SIZE BY MARKET

This report draws insights from GlobalWebIndex's Q4 2018 and Q1 2019 waves of research across 45 countries, with a global sample of 278,359 respondents.

Argentina	3,116
Australia	8,057
Austria	2,560
Belgium	2,553
Brazil	4,680
Canada	4,539
China	30,480
Colombia	2,787
Denmark	2,522
Egypt	3,533
France	10,130
Germany	10,190
Ghana	1,990
Hong Kong	3,650
India	15,109
Indonesia	3,686
Ireland	2,499
Italy	10,373
Japan	3,604
Kenya	2,024
Malaysia	3,071
Mexico	5,274
Morocco	2,038

Netherlands	2,624
New Zealand	2,558
Nigeria	2,099
Philippines	3,272
Poland	3,651
Portugal	2,557
Romania	2,625
Russia	4,368
Saudi Arabia	2,886
Singapore	5,455
South Africa	3,039
South Korea	2,555
Spain	10,231
Sweden	2,604
Switzerland	2,550
Taiwan	3,545
Thailand	3,094
Turkey	3,145
UAE	3,482
UK	20,303
USA	50,087
Vietnam	3,164

Notes on Methodology: Internet Penetration Rates

ACROSS GLOBALWEBINDEX'S MARKETS

GlobalWebIndex's research focuses exclusively on the internet population and because internet penetration rates can vary significantly between countries (from a high of 90%+ in parts of Europe to lows of c.20% in parts of APAC), the nature of our samples is impacted accordingly.

Where a market has a high internet penetration rate, its online population will be relatively similar to its total population and hence we will see good representation across all age, gender and education breaks. This is typically the case across North America, Western Europe and parts of Asia Pacific such as Japan, Australia and New Zealand. Where a market has a medium to low internet penetration, its online population can be very different to its total population; broadly speaking, the **lower the country's overall internet penetration rate, the more likely it is that its internet users will be young, urban, affluent and educated.** This is the case throughout much of LatAm, MEA and Asia Pacific.

This table provides GlobalWebIndex forecasts on internet penetration (defined as the number of internet users per 100 people) in 2019. This forecasted data is based upon the latest internet penetration estimates from the International Telecommunication Union (ITU) for each market that GlobalWebIndex conducts online research in.

GLOBALWEBINDEX VERSUS ITU FIGURES

As GlobalWebIndex's Core Research is conducted among 16-64 year-olds, we supplement the internet penetration forecasts for a country's total population (reproduced above) with internet penetration forecasts for 16-64s specifically.

Forecasts for 16-64s will be higher than our forecasts for total population, since 16-64s are the most likely age groups to be using the internet.

Internet Penetration Rates

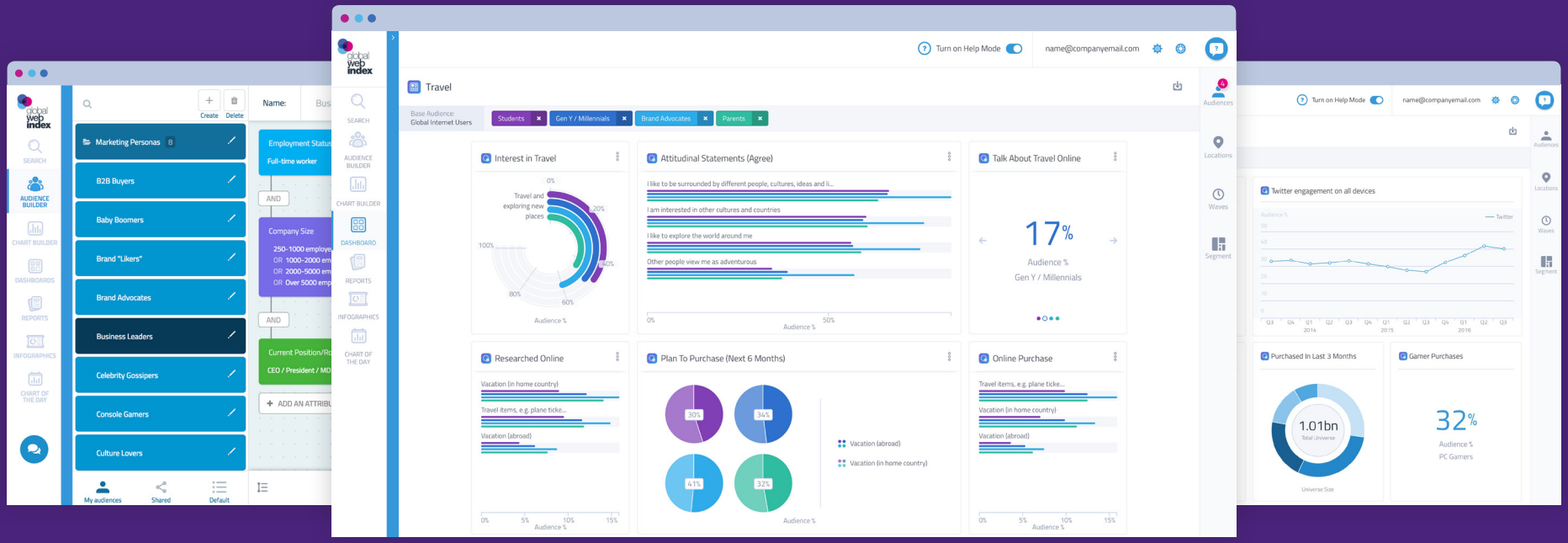
GlobalWebIndex's Forecasts for 2019 based on 2017 ITU data

Argentina	78%	Indonesia	39%	Russia	80%
Australia	88%	Ireland	87%	Saudi Arabia	83%
Austria	88%	Italy	62%	Singapore	85%
Belgium	89%	Japan	92%	South Africa	62%
Brazil	71%	Kenya	43%	South Korea	95%
Canada	94%	Malaysia	83%	Spain	87%
China	59%	Mexico	69%	Sweden	96%
Colombia	66%	Morocco	69%	Switzerland	96%
Denmark	97%	Netherlands	93%	Taiwan	83%
Egypt	54%	New Zealand	93%	Thailand	58%
France	85%	Nigeria	36%	Turkey	71%
Germany	88%	Philippines	64%	UAE	95%
Ghana	48%	Poland	79%	UK	96%
Hong Kong	91%	Portugal	78%	USA	80%
India	42%	Romania	72%	Vietnam	55%

Like what you've read?

There's plenty more where that came from.
Browse our latest reports and infographics
examining key consumer trends across markets.

Access More Reports



Get more from your data.

Run your own custom studies using our panel of 22 million consumers, and get instant access to insight tailored to your business needs.

Request Custom Research

Jason Mander
Chief Research Officer

jason@globalwebindex.com

Viktoriya Trifonova
Insights Analyst & Writer

viktoriya@globalwebindex.com

www.globalwebindex.com