HOW THE WORLD GOES ONLINE IN 2024

The latest data suggest that **5.35 billion** people around the world are now online, equating to more than **66 percent** of the world's total population.

However, user numbers alone don't tell us enough about whether internet access is delivering on its potential to actively improve people's lives.

As the Alliance for Affordable Internet (**A4AI**) states in its excellent "Meaningful Connectivity" **paper**,

"*Not everyone connects to the internet in the same way. If policymakers only rely on broad, binary metrics* [like user numbers]*, their efforts to improve access for all will not succeed. Indeed, ignoring the huge differences in how people connect will only exacerbate inequalities, online and offline*."

In order to address these shortcomings, A4AI has set out minimum thresholds for "quality" of access across the four dimensions of internet access that matter most to users:

1. **Regular internet use** – minimum threshold: daily use
2. **An appropriate device** – minimum threshold: access to a smartphone
3. **Enough data** – minimum threshold: an unlimited broadband connection at home or a place of work or study
4. **A fast connection** – minimum threshold: 4G mobile connectivity

In this article, we'll explore progress across each of these dimensions – albeit in a different order – using the latest data collected for our ongoing **Global Digital Reports** series.

However, it's important to stress that many of the data points we'll explore below represent national averages, and as such, they may not accurately depict the everyday realities and challenges faced by people in different socioeconomic groups.

Devices used to access the internet

It's perhaps no surprise to learn that mobile phones are the clear leader when it comes to the devices that people use to access the internet in 2024.

However, you may be surprised to learn that computers still play an important role in internet activity, especially across higher-income countries.

Just before we explore that data though, it's worth highlighting that the latest data from **GSMA Intelligence** puts global mobile penetration at **69.4 percent**.

The organisation reports that there were more than **5.6 billion** unique mobile subscribers at the end of 2023, with that figure increasing by **2.5 percent** – or **138 million** users – over the course of 2023.

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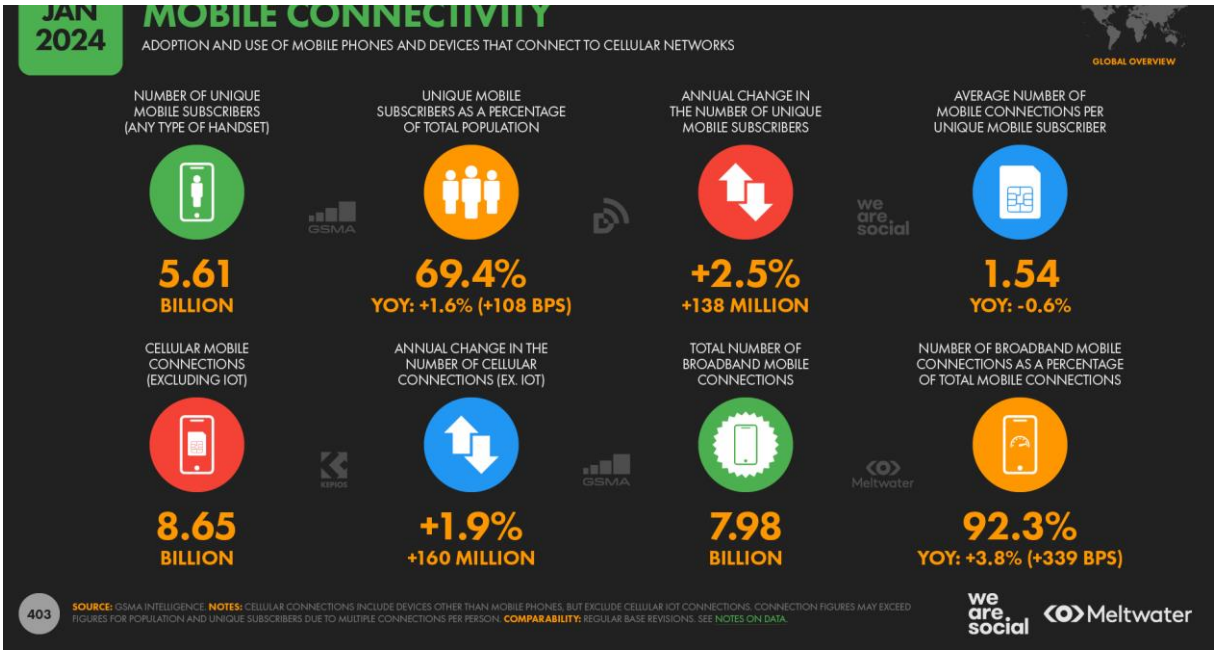

However, it's important to note that the penetration figure cited above represents adoption against the global population as a whole, and mobile adoption amongst adults is likely already in excess of 80 percent.

Indeed, GSMA Intelligence's **data** shows that roughly three-quarters of the world's adults aged 18 and above (73 percent) were using mobile internet in 2022, and that figure has likely increased further since that data was collected.

But GSMA Intelligence also **reports** that roughly 350 million people who own a smartphone do not yet use mobile internet, so it's important to look beyond device ownership, and explore actual behaviour.

Mobile internet use around the world

Across 53 of the world's larger economies – which collectively account for about 87 percent of the world's total connected population – **GWI** reports that **96.5 percent** of working-age internet users go online using a mobile phone.

Overall, 94.6 percent of internet users go online using a smartphone, but it's worth highlighting that 3.8 percent still use a "**feature phone**" for at least some of their internet activities [*note that some people use both smartphones and feature phones to go online*].

However, the same research shows that more than 6 in 10 internet users between the ages of 16 and 64 still use laptop and desktop computers for at least some of their internet activities.

Amongst this cohort, roughly 55 percent of internet users go online using their own computer, while just over 26 percent use a computer provided by their employer.
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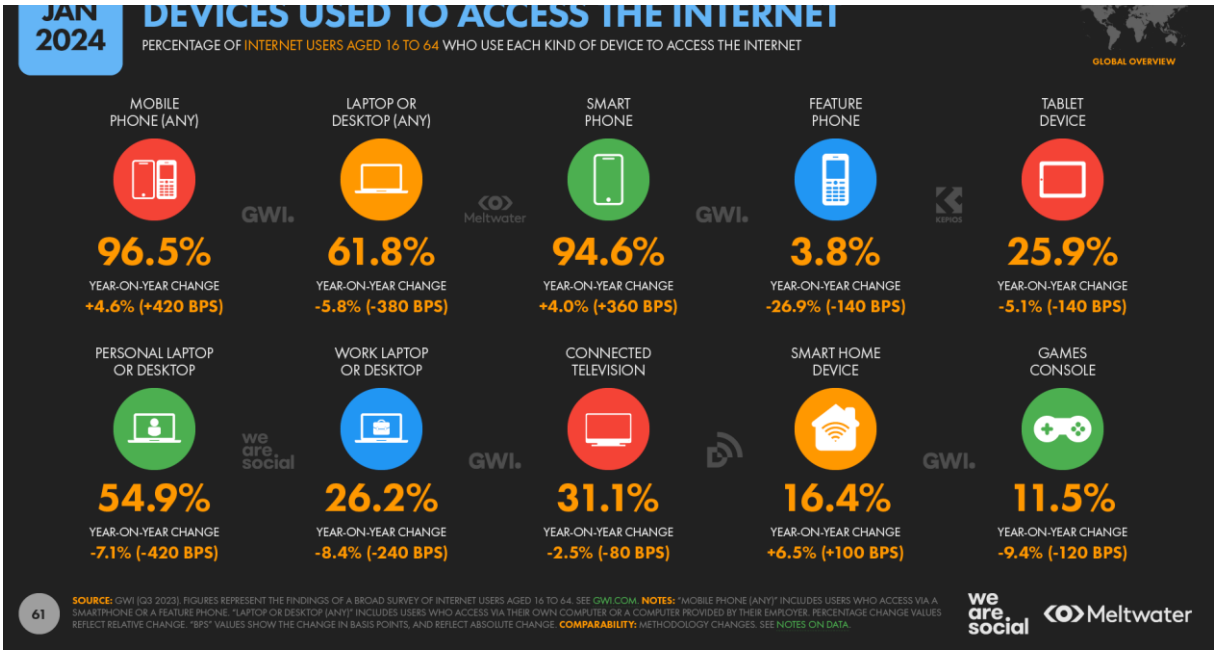

However, the use of computers to access the internet has been declining steadily in recent years, and GWI reports that the number of internet users going online via laptops and desktops declined by a relative 5.8 percent (-380 basis points) over the past year.

It's also interesting to note that the use of tablets to go online has also declined by a similar margin.

25.9 percent of GWI's survey respondents said that they accessed the internet via a tablet device in Q3 2023, which was 5.1 percent (140 basis points) lower than the figure for the same period the year before.

Device preferences vary by age

GWI's data also reveals that device use varies by age.

Overall, the use of mobile phones is relatively consistent across all ages, with men aged 55 to 64 the only cohort in GWI's survey to see use rates of below 95 percent.
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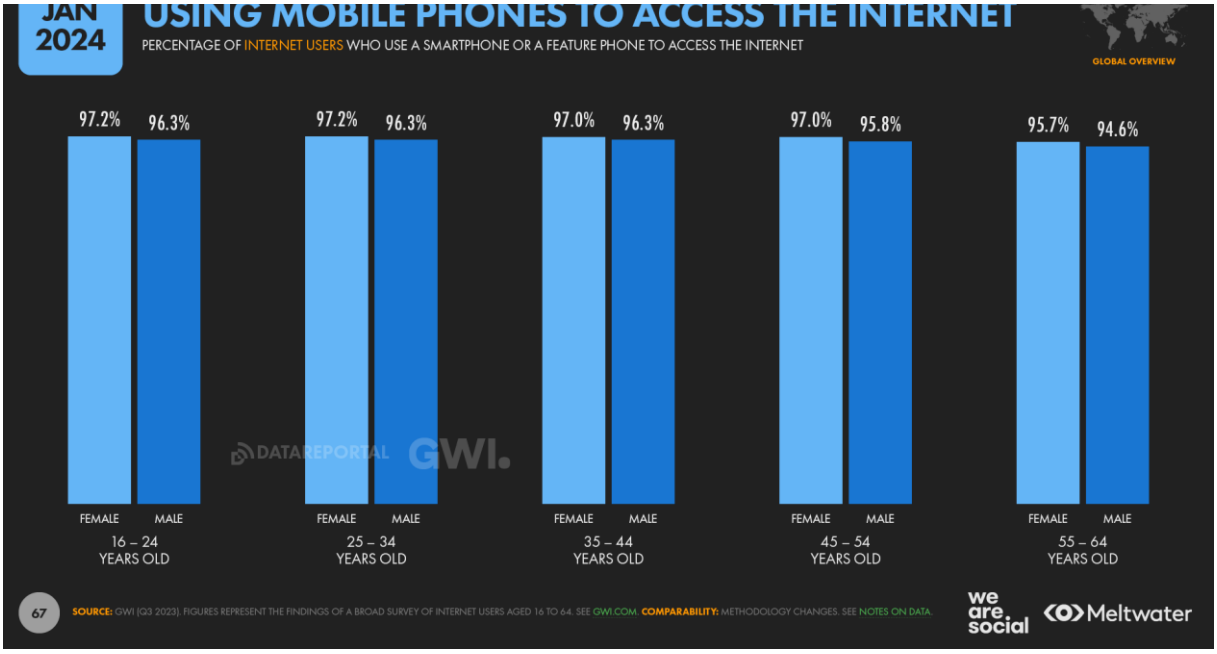

However, older generations are more likely to use computers to access the internet, with older men especially like to say they use laptops and desktops for at least some of their connected activities.

More than 7 in 10 men aged 55 to 64 said that they used computers to go online in Q3 2023, which compares with just 57.3 percent of women aged 16 to 24.
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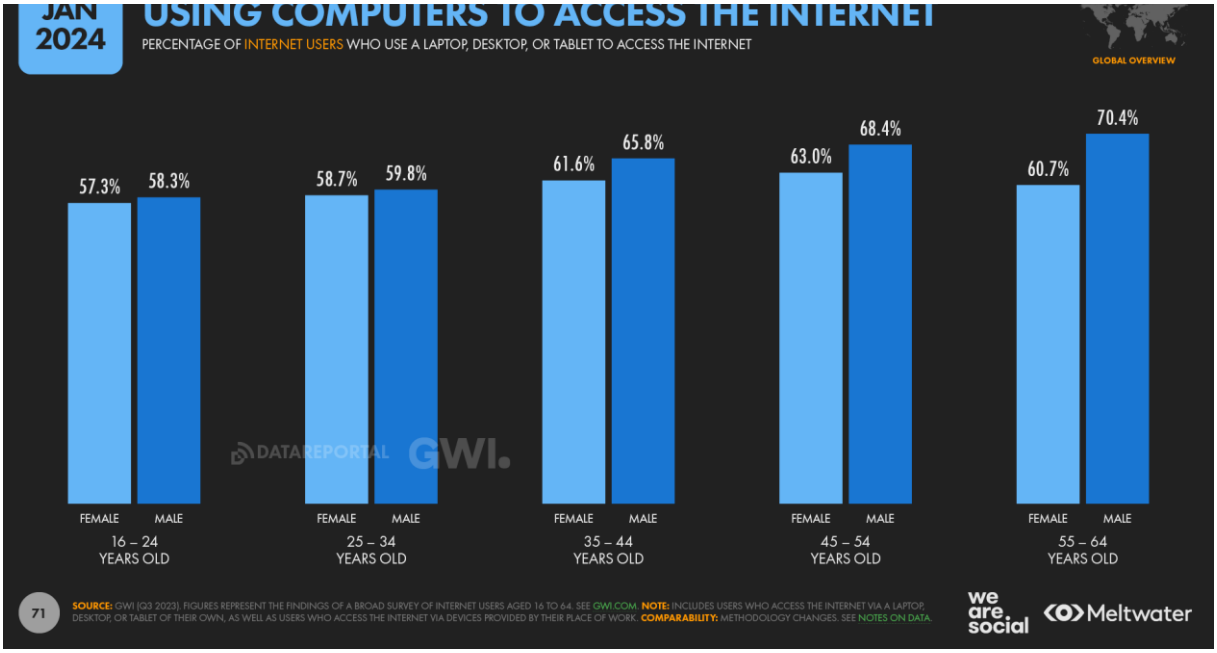

But when we look at the amount of time that people spend using each device, we see another perspective to these findings.

Overall, men in that older age group say that they spend more than half of their daily online time using laptops and desktops, while women aged 16 to 24 say that mobile phones account for close to two-thirds of their daily online activity.
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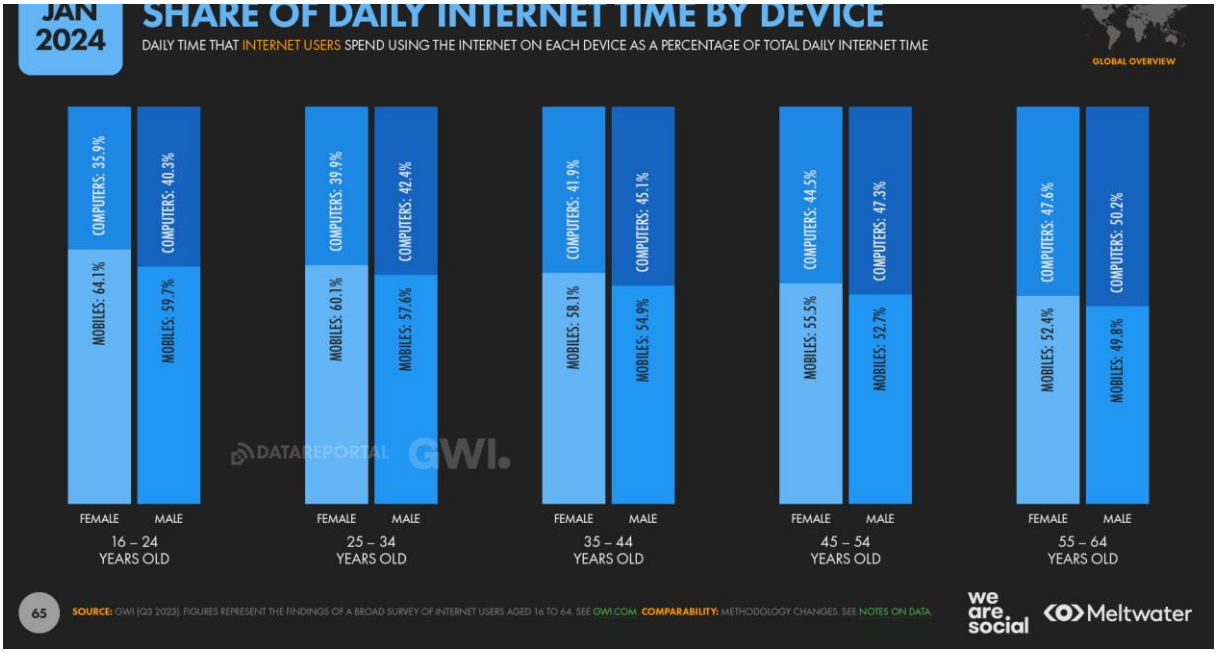

Location matters

Meanwhile, device use and preferences also vary significantly by country.

Once again, the use of mobile phones to access the internet is universally high, although there is still some variation.

GWI reports that 98.9 percent of internet users in **Indonesia** use mobile phones for at least some of their internet activities, with the **Philippines** just behind at 98.8.

South Africans rank third, with 98.7 percent of the country's connected adults saying that they go online via a mobile.

And it's worth highlighting here that South Africans spend the greatest amount of time using the internet each day, with their combined activity across all devices adding up to a hefty 9 hours and 24 minutes.

Danes report the lowest use of mobile phones for internet activity, but even then, 92.3 percent of the country's working-age internet users say that they use mobile handsets for at least some of their connected activities.

Canadians rank second-to-last, with 92.5 percent, while **Singapore** ranks a surprise third-to-bottom, with just 92.7 percent of the city state's internet users saying that they use mobiles to go online.
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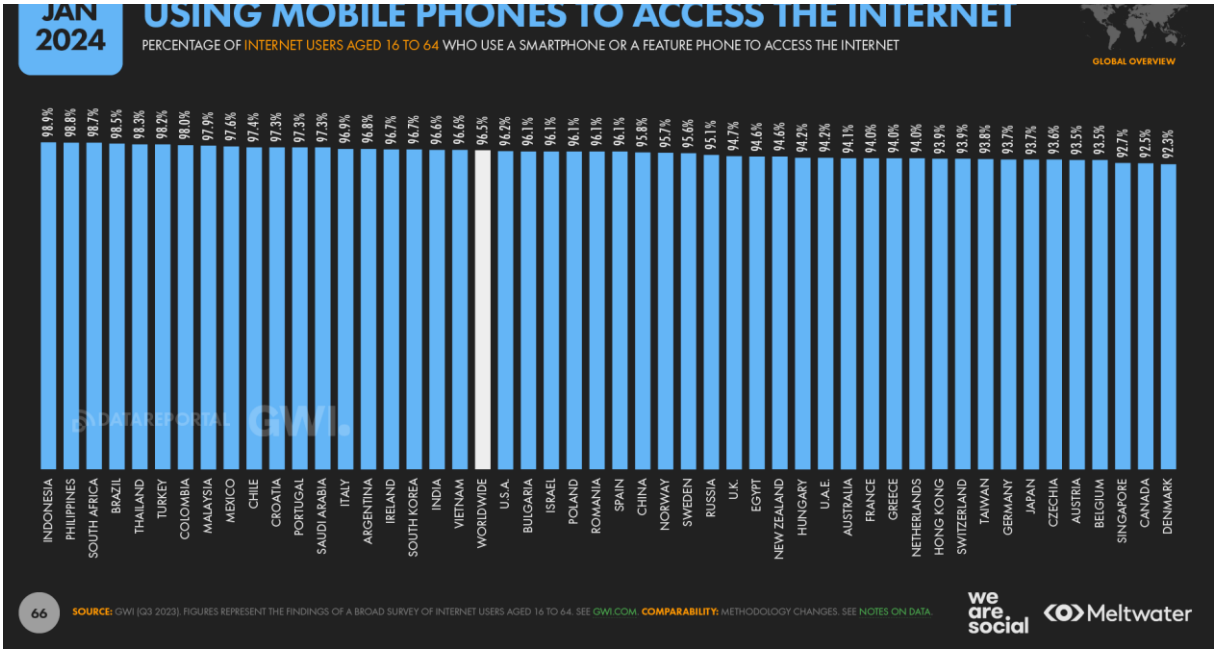

Computing the difference

But there's far more variation in the figures for computer access.

GWI's latest research shows that **Czechs** are the most active users of computers to go online, with 86.5 percent of the country's netizens saying that they use connected laptops and desktops on a monthly basis.

Croatians rank second, with 86.1 percent, while internet users in **Portugal** are the third most active when it comes to using the internet on computers, at 84.5 percent.

It's a very different picture at the other end of the spectrum though, with just 14.8 percent of internet users in **Morocco** saying that they go online via laptop and desktop devices.

Nigeria sees similarly low levels of use at 17.9 percent, while less than a quarter of **Ghanaians** (24.9 percent) say they go online via a computer each month.
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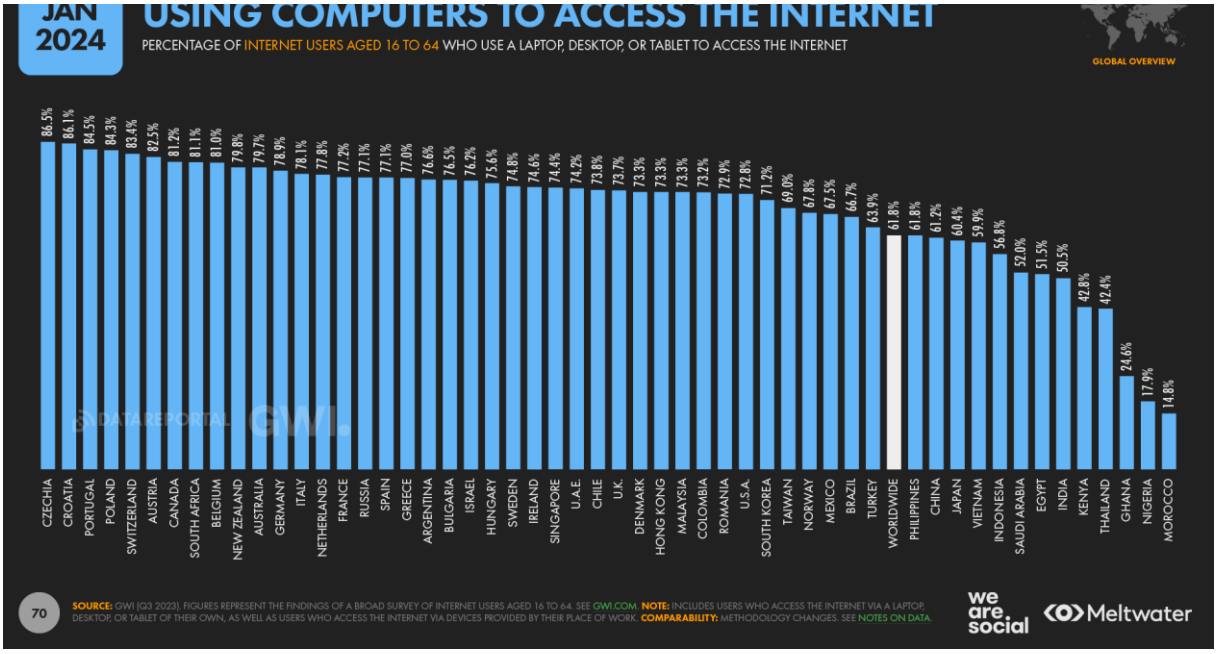

Perhaps most interestingly, however, more than half of respondents in 48 out of GWI's 53 survey countries say that they use computers for at least some of their connected activity, suggesting that computers are considerably more important than stereotypes might suggest.

However, it's important to remember that finances play a particularly important role in determining whether people have access to computers, and as such, people in lower- and middle-income countries are significantly less likely to use computers than people in richer economies.

But having said that, GWI's data suggests that finances aren't the only factor determining whether people use computers to go online.

Indeed, the company's latest research shows that more than 4 in 5 (81.1 percent) internet users in South Africa use laptops and desktops each month, despite GDP per capita in the country falling below the global average.
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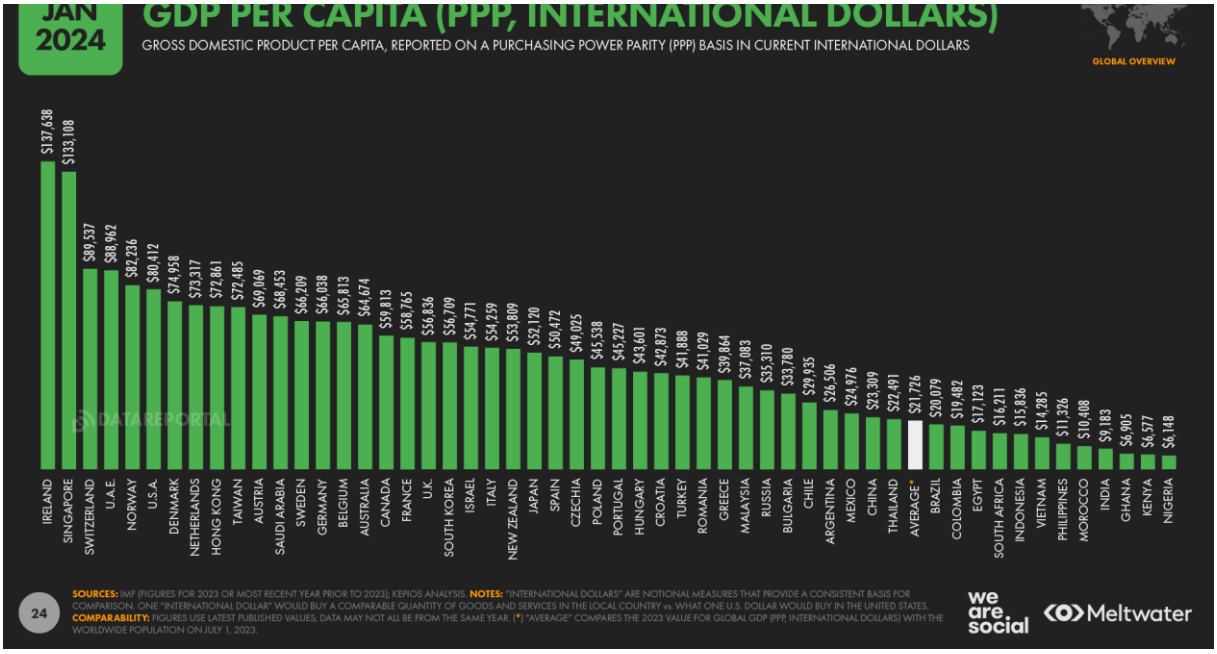

Time share

Once again though, comparing the share of time by device reveals some more valuable insights.

For example, **China** sees the greatest mobile "skew", with the country's netizens saying that mobile phones account for close to two-thirds (63.3 percent) of their daily internet time.

Mobiles also dominate in **South-Eastern Asia**, with **Thais** and Indonesians particularly likely to over-index on mobile time.

At the other end of the scale, **Belgians** spend the smallest share of their internet time on mobile phones, with GWI's research revealing that computers account for 54.8 percent of daily online time.

Danes and Czechs also see higher rates of computer use, while laptops and desktops also account for the majority of internet time in **Russia**.

Somewhat surprisingly, computers are still the "preferred" internet device across roughly 1 in 3 countries in GWI's survey, with users in 17 out of 53 countries spending more time using the internet on computers than they do on laptops.

The data alone doesn't offer any clear reasons for these variations, but – as we saw earlier – computers tend to be more popular amongst older populations.

This may be partly because computers offer larger screens and more tactile keyboards, and these factors may make them more appealing to older users with deteriorating eyesight and less dextrous fingers.

And this in itself has important implications for people considering how to connect older generations.

Moreover, governments need to take careful account of the challenges associated with using mobile phones when using the internet, especially when designing online services.

Governments around the world are increasingly encouraging their citizens to make use of mobile apps, but these may not be the best solution for seniors, who are often amongst those most dependent on government services and support.

As a result, while mobile phones are often the most affordable and accessible means of accessing the internet, it's important not to ignore other devices.
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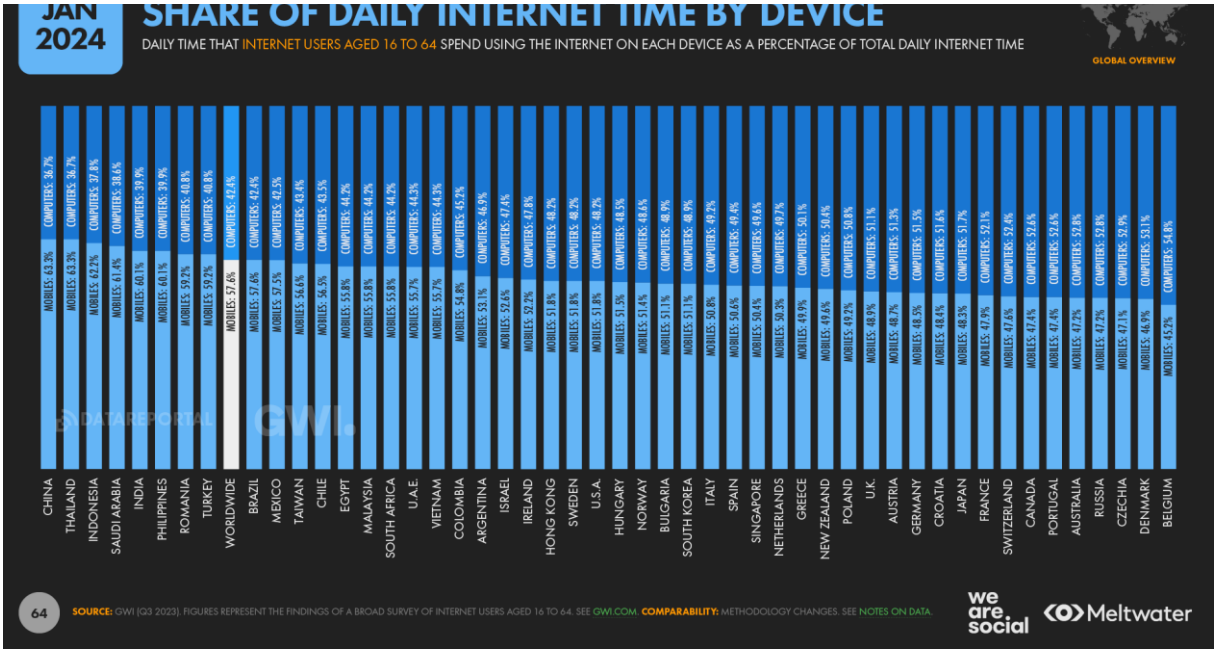

Other perspectives on connected devices

Meanwhile, web browsing data from **Statcounter** provides more valuable insights into how people go online.

Just before we explore this data, it's worth noting that "the web" only accounts for a relatively small share of mobile activity, and analysis from **data.ai** reveals that the use of web browsers only represents 6.3 percent of daily smartphone time.

However, web traffic data still offers a valuable perspective on connected behaviours by country.

The company's latest data indicates that just under 57.9 percent of web traffic originates from mobile handsets, which is very similar to the 57.6 percent share of overall internet *time* that we saw in GWI's data above.

Statcounter's data does show that mobile's share of web traffic fell by a relative 3.9 percent (-234 **basis points**) over the past year, but we often see fluctuations like this in Statcounter's

web traffic data, and our analysis of longer-term data suggests that this doesn't represent a sustained trend.

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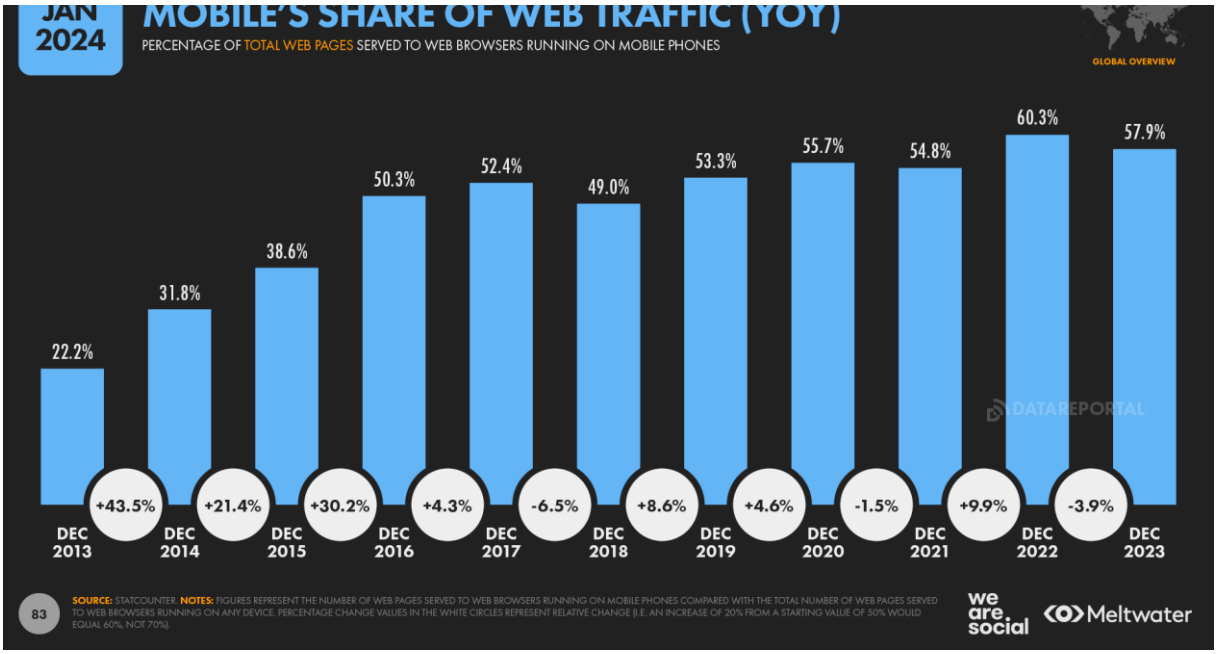

Meanwhile, laptops and computers account for 40 percent of total web traffic, while tablets account for slightly less than 2 percent.

We've included "other" devices (e.g. games consoles and connected televisions) for completeness, but at less than 0.1 percent of total global traffic, these devices aren't of primary importance.

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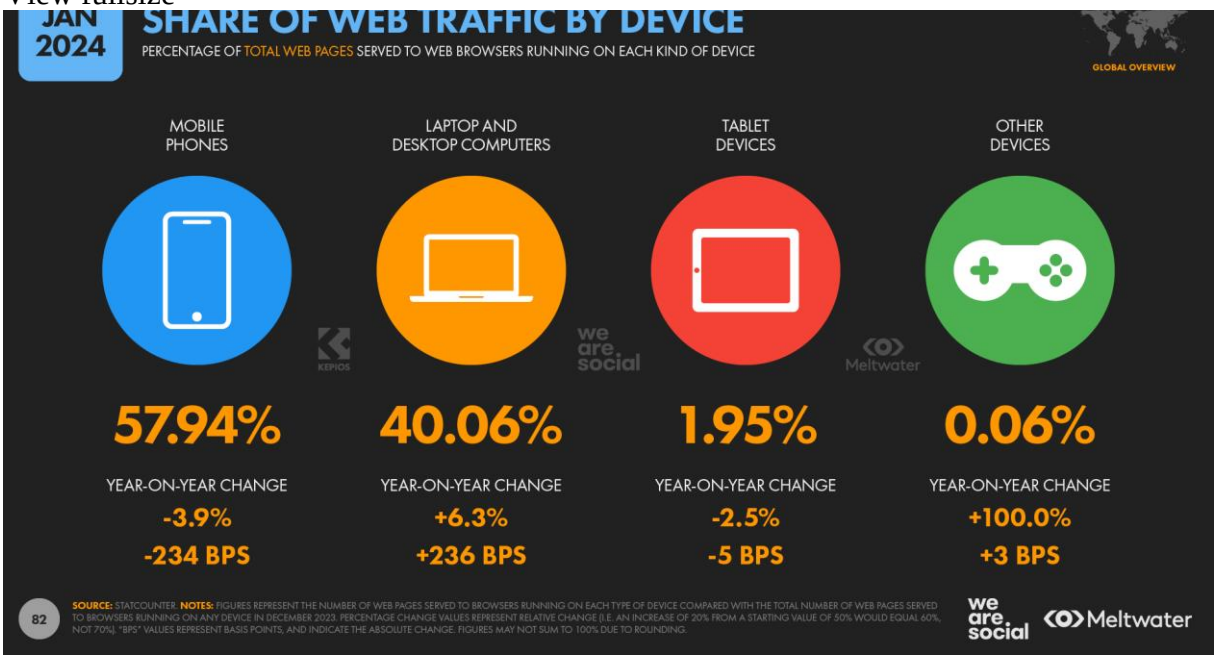

Just as we saw in GWI's data though, the relative role of mobile varies significantly by country.

Statcounter reports that Nigeria has one of the strongest skews towards mobile, with 87.6 percent of the country's web traffic originating from mobile phones in December 2023.

Similarly, mobiles account for more than 80 percent of web traffic in **Vietnam** and South Africa.

However, looking beyond our "featured" countries, we see even greater imbalances in some other countries.

Chad sees the strongest skew towards mobile in Statcounter's latest data, with 92.8 percent of the country's web traffic in December 2023 originating from mobile devices.

Sudan ranked second with 91.4 percent, while the **Democratic Republic of the Congo** ranked third, at 89.9 percent.

However, even in these countries, it's important to highlight that computers still account for *some* internet activity, albeit only a small share.

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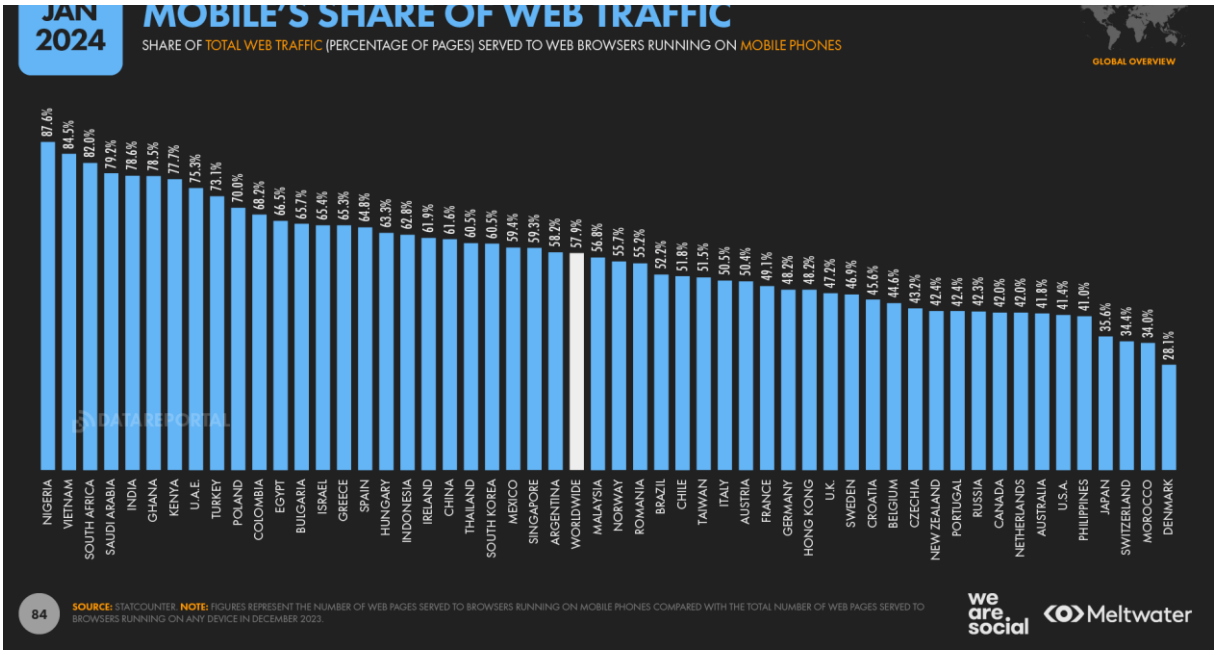

Moreover, just as we saw in GWI's data, internet users in various countries still seem to prefer using a computer to go online.

Amongst our "featured" countries, Denmark sees the strongest preference for computers, with more than 70 percent of the country's web traffic originating from laptop and desktop devices.

Somewhat surprisingly though – and in stark contrast to the GWI data we above – Morocco also ranks highly for the use of computers to access the web, with laptops and desktops accounting for almost two-thirds of web-page requests originating from the **North-African** country.

Beyond these featured countries, Pitcairn tops Statcounter's latest ranking, with 100 percent of web traffic originating from laptops.

However, with a population of just 54 people, the sample base for this data is too small to be considered representative.

The same can also be said for Christmas Island and the Vatican, so we've removed these three locations from our analysis, although it's worth noting that all three territories have an elevated dependence on computers when it comes to accessing the web.

Beyond those three geographies, **San Marino** sees the highest representative share of web traffic originating from computers, with 78.6 percent of the country's web traffic originating from these devices.

Armenia, **Estonia**, and **Latvia** also see strong skews in favour of computers, with laptops and desktops accounting for more than 70 percent of web page requests originating from these countries.

And while we're on the subject of web browsing, it's also interesting to note that Google Chrome accounts for just under two-thirds of all web page requests at a worldwide level, while Apple's Safari browser claims just over 18½ percent.

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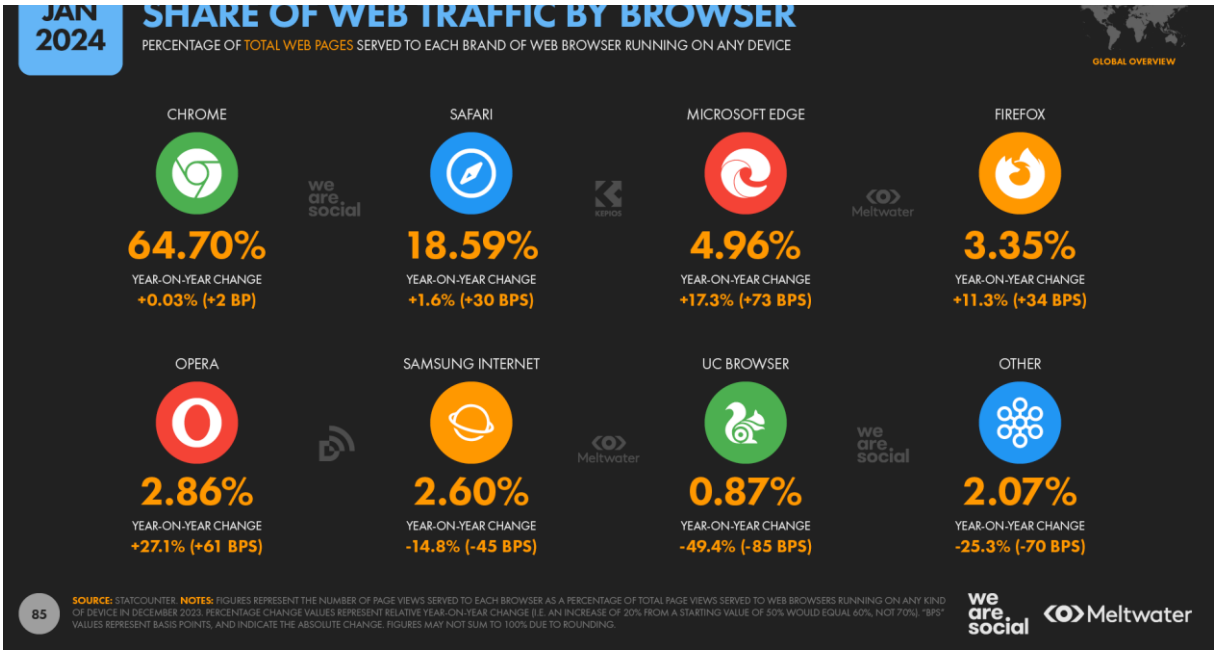

Internet connection speeds

It's important to highlight that the devices people choose to use to access the internet may depend in large part on the quality of access that they can expect from each device.

Connection speeds are a particularly important consideration here, so let's explore the latest data from **Ookla**, to understand how bandwidth varies around the world.

Average internet connection speed

At a worldwide level, Ookla reports that **mobile** internet users enjoyed a **median** download speed of **48.61 Mbps** in November 2023.

In simple terms, this means that – around the world – half of all mobile internet connections were *faster* than this, and the other half were *slower*.

This median download speed increased by **43 percent** over the past 12 months though, meaning that the typical mobile internet user now has close to 15 Mbps more bandwidth than they did this time last year.

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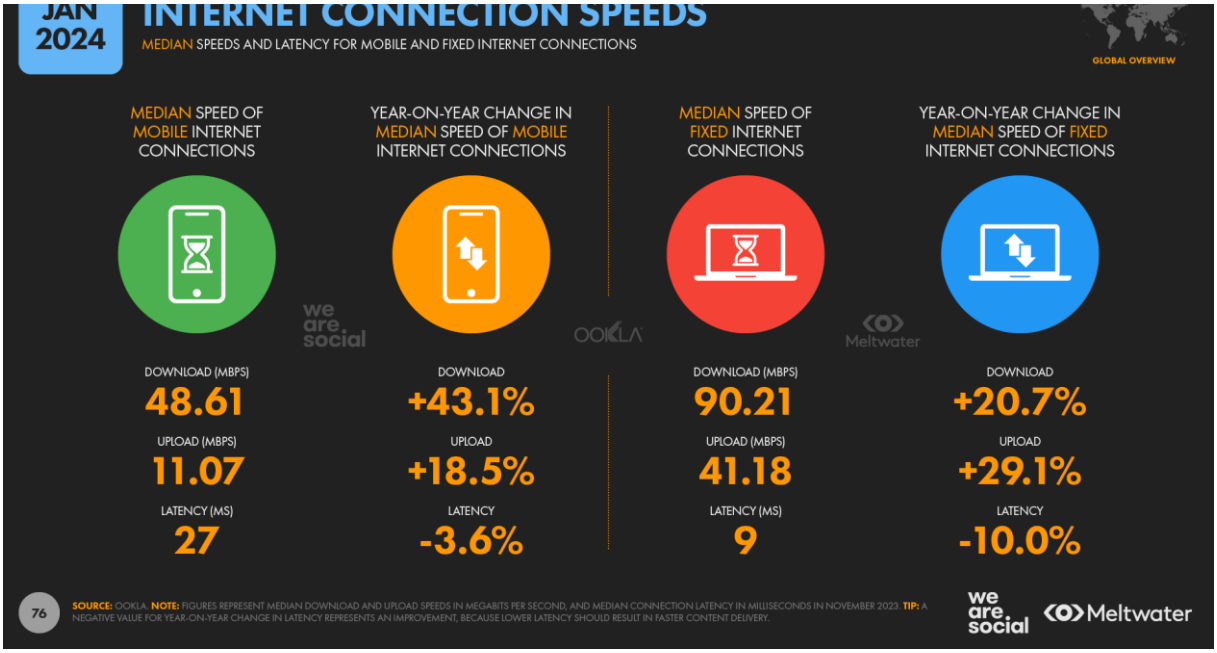


However, as we've seen various times in this analysis, the user's location plays a central role in defining their connected experience.

Ookla's data shows that mobile users in the **United Arab Emirates** enjoyed the fastest median mobile connections in the world in November 2023, with the typical connection delivering downloads speeds of almost 325 Mbps.

For perspective, Netflix **states** that viewers need at least 15 Mbps of bandwidth in order to watch content in "ultra-high definition", so – at least in theory – the typical mobile user in the UAE can now stream 21 separate **4K** movies via their mobile connection *at the same time*.

Neighbouring **Qatar** places second in Ookla's mobile ranking for November 2023 at 244 Mbps, while **Kuwait** ranks third, with 189 Mbps.

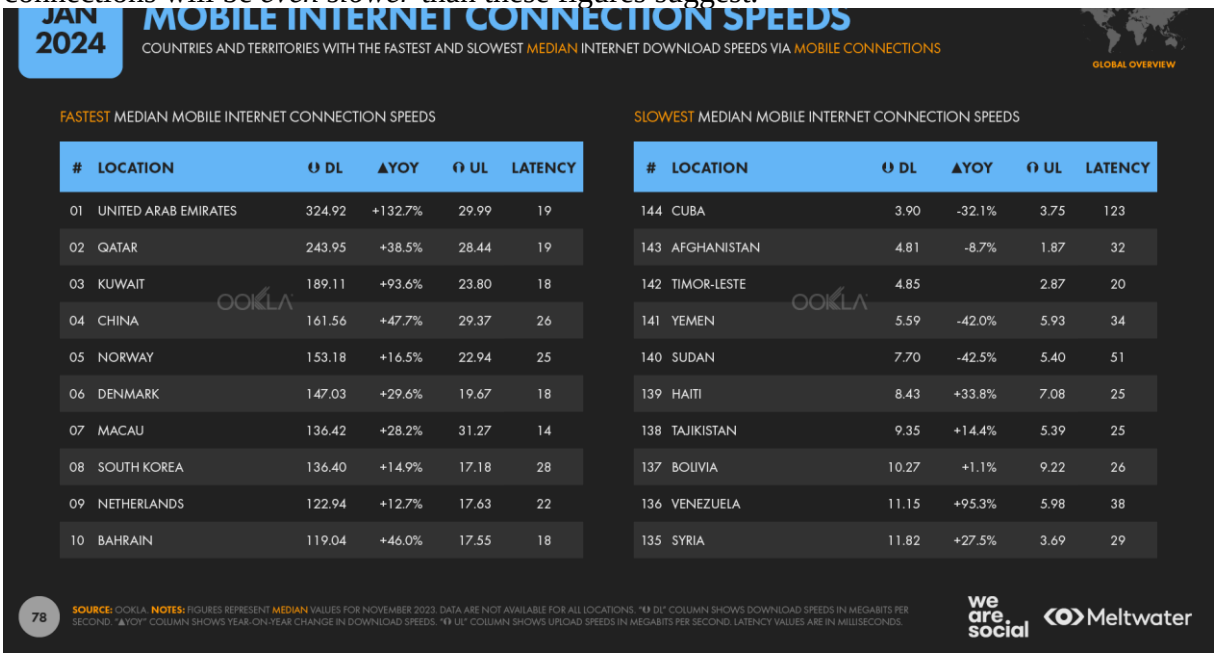
However, we see a very different story in other parts of the world.

Ookla's **Speedtest** data shows that the typical mobile connection in **Cuba** crawled along at just 3.9 Mbps in November 2023, and – worryingly – that figure was 32 percent lower than the one the company recorded 12 months prior.

Afghanistan comes second-to last in Ooklas' mobile speed ranking, with a median connection of just 4.81 Mbps.

Meanwhile, a total of seven countries saw median download speeds languish below 10 Mbps in November 2023, while users in 17 countries still wouldn't meet Netflix's 15 Mbps requirement for 4K video.

It's important to highlight that these figures are medians too, so half of each country's connections will be *even slower* than these figures suggest.



Fixed internet connection speeds

Somewhat surprisingly, the UAE's median mobile connection is now faster than the world's fastest median fixed connection, with wired connections in top-ranked Singapore "only" delivering a median of 263.5 Mbps.

However, at a worldwide level, fixed connections outpace mobile connections by a factor of almost 2 to 1.

Ookla's data for November 2023 suggests that fixed internet users enjoyed median download bandwidth of 90.2 Mbps, with that figure up by more than 20 percent year on year.

As with mobile connections though, speeds vary significantly by geography.

Both Singapore and **Hong Kong** enjoy median connections in excess of 250 Mbps, while the figures for **Chile**, China, and **Monaco** fall only slightly below that benchmark.

Once again, Cuba finds itself at the bottom of the rankings though, with the country's typical fixed connection offering a measly 2.11 Mbps in November 2023.

Afghanistan finds itself in familiar territory too, with a median of 3.12 Mbps placing it second-to-last in our latest ranking of fixed internet connections.

Reassuringly, both countries saw fixed speeds increase over the past year, but at current growth rates, it would take almost 50 years for Cuba to attain Singapore's current speeds.
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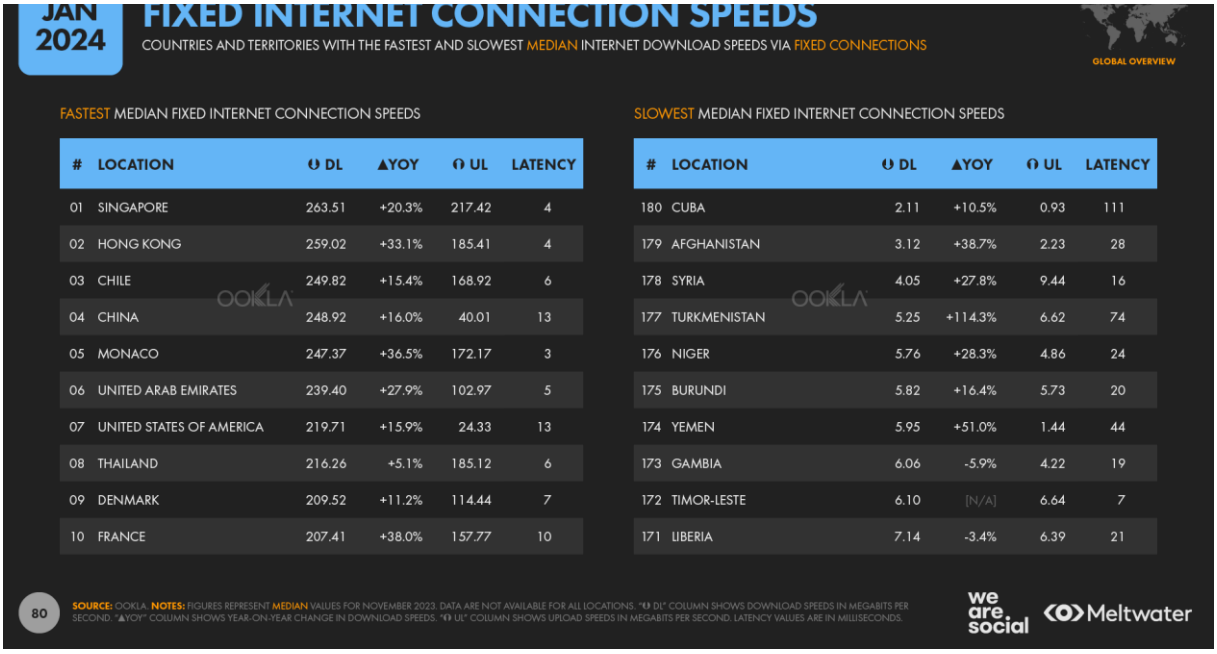

Frequency of internet use

It's surprisingly difficult to find data on the frequency of internet use (or access) by country, so we can't offer any easy way of quantifying progress towards A4AI's target of daily use for everyone.

However, if we consider that social media is the most popular online activity in the world – including for users in lower- and middle-income countries (LMICs) – then platform usage frequency might provide some useful insights.

First up, app intelligence from **data.ai** suggests that WhatsApp enjoys the highest daily use rate of any of the large social media platforms, with 83.2 percent of active users opening the app on a daily basis.

Facebook, **YouTube**, LINE, **TikTok**, and **Instagram** all see similar usage frequency, with 60 to 65 percent of each platform's active users opening its respective Android app each day.

Meanwhile, amongst working-age internet users, GWI reports that 82.4 percent of WhatsApp users access the platform every day, while almost 84 percent of active YouTube users say that they visit the platform on a daily basis.

For added perspective, roughly 73 percent of Facebook users say that they use the platform at least once per day, while that figure is 74 percent for Instagram, and 63 percent for TikTok.

At an aggregated level, GWI's data suggests that more than 98 percent of social media users use at least one platform each day.

It's important to highlight that these figures only reflect use amongst each platform's active, adult user base though, so these figures are not representative of overall use of the internet amongst all internet users.

In particular, our analysis suggests that social media users likely only account for 90 to 95 percent of all internet users, and it seems plausible that people who *don't* use social media will use the internet less frequently than active social media users do.

More importantly, social media use tends to be lower across LMICs than it is in more advanced economies, so these social media insights are probably less representative for the audiences that matter most when we're considering the quality and frequency of internet access.

But despite these caveats, our analysis of the available data suggests that roughly 9 in 10 users around the world access the internet at least once per day.

Dig deeper

If you'd like to explore all of this data on a country-by-country basis, we offer free reports on internet adoption and use for almost every country in the world in our **DataReportal library**.

Disclosure: Simon Kemp is a brand ambassador for both GWI and data.ai.

ABOUT THE AUTHOR

SIMON KEMP
Simon is DataReportal's chief analyst, and CEO of **Kepios**.
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THE TIME WE SPEND ON SOCIAL MEDIA

DIGITAL 2024: GLOBAL OVERVIEW REPORT

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