

Connected More than Ever

Apps and digital natives: the new normal

2019–2020 Trends and insights on children's screen-time habits
across major markets and popular app categories...

Effects of Covid-19 in online habits and predictions for what's next...

Expert advice to help families achieve digital safety
and wellbeing...



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ABOUT THIS REPORT

This report looks at trends and shares insights on children's screen-time habits based on app use across three major markets – the U.S., the U.K. and Spain – between 2019 and 2020. The report focuses on most popular online activities today – online video, social media, gaming and education – and includes practical advice for parents from leading experts in psychology, medicine, law and technology.

The goal of this report is to give everyone interested in children's safety and wellbeing a 360-view of everything that is going on in the digital world of app and digital natives today. We aim to be a global and independent voice that cuts through the surplus of information related to screen-time and kids'

use of technology with insights that are timely, trustworthy and useful – a report that puts extra needed attention on this important topic and that parents, educators and researchers can turn to as a reliable reference.

This report is Qustodio's first of study into children's digital habits and we will follow up on these insights on an annual basis. It is also a companion report to the Digital Wellbeing study we released in March that looked at both parents' and children's attitudes toward their technology. Both reports provide useful tips from experts to help families achieve safety and balance online in our hyper-connected world.



ABOUT QUSTODIO

[Qustodio](#) is an independent digital safety and wellbeing company. We help families live smarter in an increasingly digital world. We aim to improve how families interact with technology through our parental control app, data insights and expert content to help families thrive online and beyond.

We want to ensure that when families use technology, they can use it with confidence, not in fear of their health, privacy or safety. Our parental control tools help make that happen. But, as the saying goes, it takes a village to raise a child. Not just parents, but everyone from corporations to governments to educators and researchers needs to stand up to make screen-time positive time.

Metho- dology

The information in this report is based on anonymous online habits data provided by 60,000 families, with **children aged 4-15 years old, in the U.S., the U.K. and Spain**. The research covers online habits from **February 2019 to April 2020** across four popular categories: **Online Video, Social Media, Video Games and Education**. Insights related to the 'Covid-effect' are from March and April of 2020.

Some apps span multiple categories, so for simplicity we have chosen just one category per app. For example, though TikTok and Facebook provide online videos, we have classified them as Social Media. We include YouTube in Online Video, and not Social Media, because even though a large proportion of its video is user-generated, it does include a subscription option and access to longer-form content, and it is considered the [second most preferred platform for watching videos on TV screens after Netflix](#). We've also included Twitch in our analysis of Online Video due to its long-form content.

For the parenting advice in this report, we worked with top tier, long-standing **doctors, psychologists, lawyers and wellbeing, gaming and technology experts** from around the world.



Thanks

We want to thank all of the experts who contributed to the creation of this report by sharing their professional advice, experience and insights:

Malcom Bain, English Solicitor and Spanish Lawyer

Dr. Nicole Beurkens, Holistic Child Psychologist

Manuel Bruscas, Qustodio VP of Product and Data Expert

Josep Gaspar, Qustodio co-founder and Gaming Expert

Dr. Cecily Dvorak Havert, Family Medicine Physician

Maria Guerrero, Family Psychologist

Marc Masip, Child Psychologist and Addiction Expert, Director at Desconecta

Georgie Powell, Digital Wellbeing Expert

Lauren Seager-Smith, CEO of Kidscape

We also want to say **thank you to all of the parents in the world today** who are doing their best to raise safe, healthy and happy children in an increasingly unpredictable and digital world. So tonight, when we go out on our balconies at 8pm to applaud the efforts of the entire medical community, as is the tradition in Spain where Qustodio has its headquarters, we will also be clapping for you.

KEY TAKEAWAYS

Kids' app habit insights



Main highlights from the four app categories
– online video, social media, video games and education.



- 1. YouTube is the still king of online video** for kids ages 4 to 15, despite being for 13+. (But for how long? TikTok & Netflix are on the rise).
- 2. Kids now spend an incredible 85 minutes a day on YouTube.** In the U.S. the average is 100 minutes a day.
- 3. TikTok is taking over social media.** It drove the growth of social app use by 100% in 2019 and 200% in 2020. On average kids now spend 80 minutes a day on TikTok.
- 4. Social media only stops when children sleep,** invading the school-time hours that had acted as a buffer to screen time pre Covid-19 lockdowns.
- 5. Sorry Fortnite, kids love Roblox,** the most popular game in the U.S. and the U.K. in 2019 and 2020 so far. On average, it's played around 20 minutes longer than other video game apps.
- 6. Kids spend around 1 hour a day playing video games.** This remained stable in 2019, but spiked during Covid-19.
- 7. Like social media, video game play has invaded the school-time hours** that had acted as a buffer to screen-time prior to Covid-19.
- 8. Educational apps are now household names.** Especially Google Classroom, which is now used by 65% of children in Spain.

KEY TAKEAWAYS

Expert advice for parents

Tips from psychologist, doctors, lawyers and technology and wellbeing specialists for today's hyper-connected digital families.



- 1.** Tear down the walls between you and your kids by **co-watching** online videos and **co-playing** video games whenever possible.
- 2.** Turn screens off **1 hour before bedtime to avoid blue light and improve sleep quality**. Screen-time should never replace sleep time.
- 3.** Balance screen time with adequate movement and exercise. **Screen-time should not take the place of being physically active. Get at least 60 minutes or more a day of vigorous activity.**
- 4.** Be aware that most online video, gaming and social media platforms are designed to be addictive. Setting screen time limits is key. **Take a screen break after 45 minutes.**
- 5.** Point out [positive role models](#) on social media your child could follow, and make sure to be one yourself.
- 6.** Keep video game consoles in common areas of the house as make sure your kids retire their digital devices to a common area at night.
- 7.** Check video game ratings (PEGI, ESRB, Common Sense) to ensure content is age appropriate, **block games that contain loot boxes** and chat rooms with strangers, and set firm time limits.
- 8.** Make sure your child uses education apps to supplement their learning, not replace it – **lack of face-to-face instruction has a negative overall impact on learning and development.**



Intro

Already in 2019, children were spending more time online than ever before. Doctors, psychologists and **even the creators of apps themselves, upped the alarm about online privacy, safety and wellbeing.** Corporations, often in response to the threat of legislation, began to show concern too by creating commercials warning us about how screen-time might be harming our eyes, our families, our lives, and by adding more controls related to child privacy and online safety.

In 2020, the increase in screen-time and the **attention to health has only accelerated** largely due to the coronavirus lockdowns which have doubled the amount of time kids spend online and brought the relationship we all have with technology into the spotlight: as adults, as children, as families. In the words of [The New York Times](#), “The coronavirus ended the screen-time debate. And screens won.”

But for how long? That our lives have accelerated online and won’t go back even to 2019 levels is probable. But, the apps our children are using and the time they are engaging with them will continue to change rapidly. And some increases, like those in online education,

are probably temporary, and will ebb, though not entirely, when children go back to school. But others, such as the rise in online video calling and the use of TikTok, are likely here to stay.

This **additional time online comes with additional dangers and limitations.** Online learning is not the same as being in a classroom, a Zoom is not the same as real face-to-face interaction. And cases of online harm, child exploitation, grooming and addiction are on the rise. Now is the time for parents to step up their understanding of the digital landscape and of how to build healthy habits online, and for app makers and legislators to do even more to keep kids safe.

Whatever your interaction with children is, anyone who cares about the future of today’s digital natives can benefit from reading the chapters ahead on online video, social media, videogames and education. Through better understanding of industry trends, children’s habits, and expert advice we can do more than be prepared for ‘the new normal’, we can be part of making it a safe and healthy place where kids can thrive online.

Online Video

Industry Trends

What to know

Online video is here to stay. Through 2019 and into 2020, the well-established trend of switching from linear to online TV continued, with the average person now watching [84 minutes of video online every day](#). Children now [watch twice as many videos every day compared to 4 years ago](#). According to Common Sense Media, the average time those kids spent watching online videos roughly doubled to an hour a day, numbers which are reflected in our own data.

The 'streaming wars' continued with **Netflix** spending \$12 billion on content and reaching 158 million subscribers globally, and with **Amazon Prime** growing rapidly on its heels with a move into sports by investing in the football premier league, APT Tennis and the NBL. **Disney+** joined the competition in November and immediately accrued over 10 million subscribers, a number that accelerated to 50 million during Covid-19.

While these premium players continue to fragment the market, and fight it out for

subscribers who often 'bounce' between services in search of the latest shows, **YouTube** also continues to grow, but not without challenges. In 2019, the [FTC found that YouTube was not compliant with COPPA guidelines around the management of children's data and was fined \\$170m](#) - a record in regulatory history but tiny as a proportion of YouTube revenues. YouTube is now requiring all creators to declare whether or not their content is targeted at children. **YouTube Kids**, on the other hand, continues to remain a niche offering, with many children preferring the wider array of content available on the main YouTube platform.

The replay on YouTube of the [mass murder last year in New Zealand](#) gave the world cause for pause and increased the importance of more rigorously policing the dissemination of content across online video platforms. And, it gave parents a wake up call to the need not only to be careful about the time their children spend watching videos, but the content of those videos.

Kids' App Use

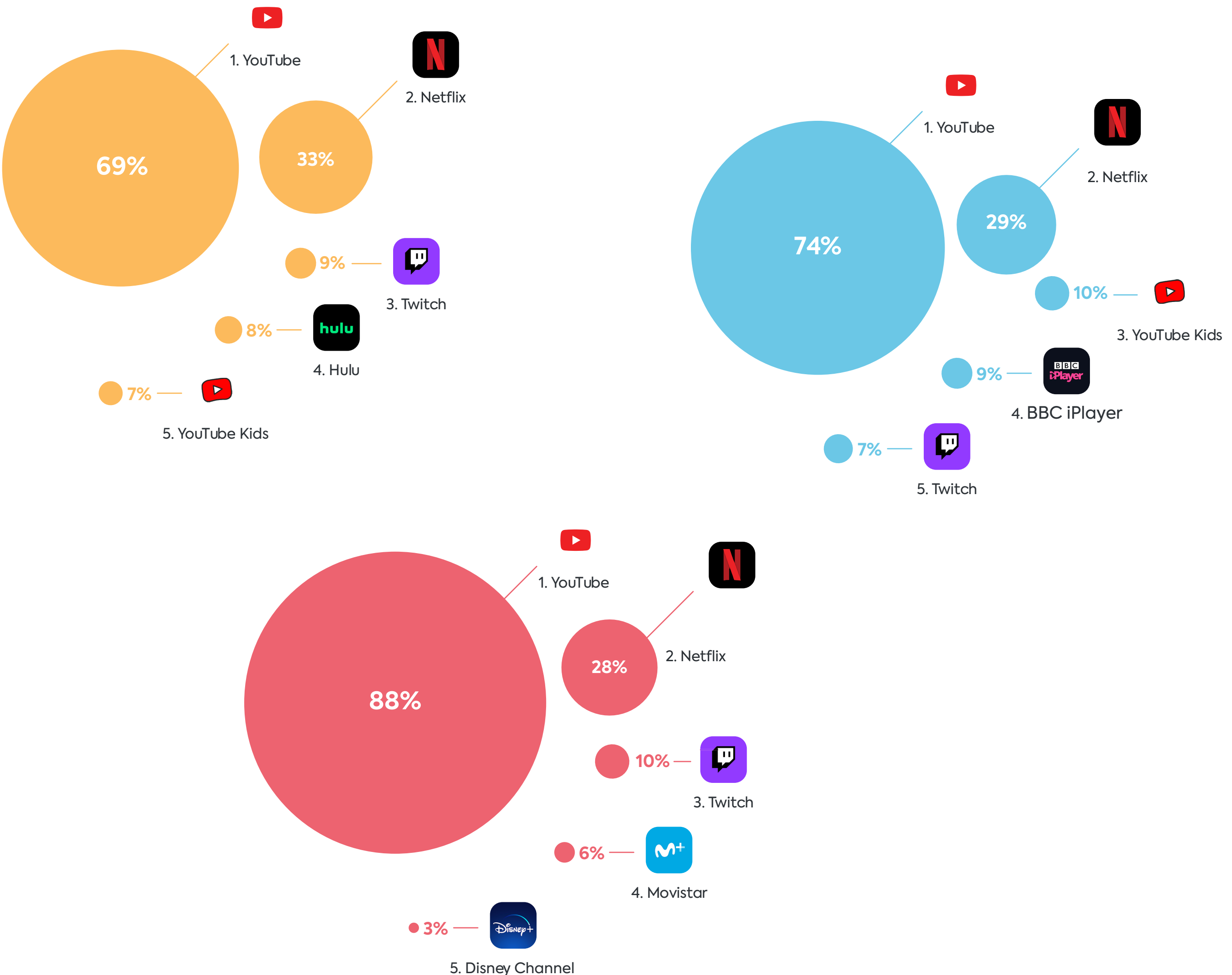
What are children watching

When it comes to kid's video, **YouTube is king**. The online video platform continues to dominate viewing habits with 69% of kids watching it in the U.S., 74% in the U.K. and 88% in Spain. Meanwhile YouTube Kids, the YouTube platform designed for children under 13, was watched by just 7% of kids in the U.S., 10% of kids in the U.K. and wasn't even on the radar in Spain, which means they are watching plenty of regular YouTube too. For example, focusing on children aged 7-9 in the U.K., 6% of them watched YouTube Kids, whereas nearly half of children in that age range watch YouTube.

Netflix, the leader amongst adults, is number two across all markets in our age 4-15 data set, being watched by 35% of kids in the U.S., 29% of kids in the U.K. and 28% of kids in Spain. Twitch appears in the top 5 for all three markets. The top regional players, Hulu in the U.S., iPlayer in the U.K., and Movistar in Spain, all ranked 4th in their respective markets.

% of kids using most popular video apps

US UK ES



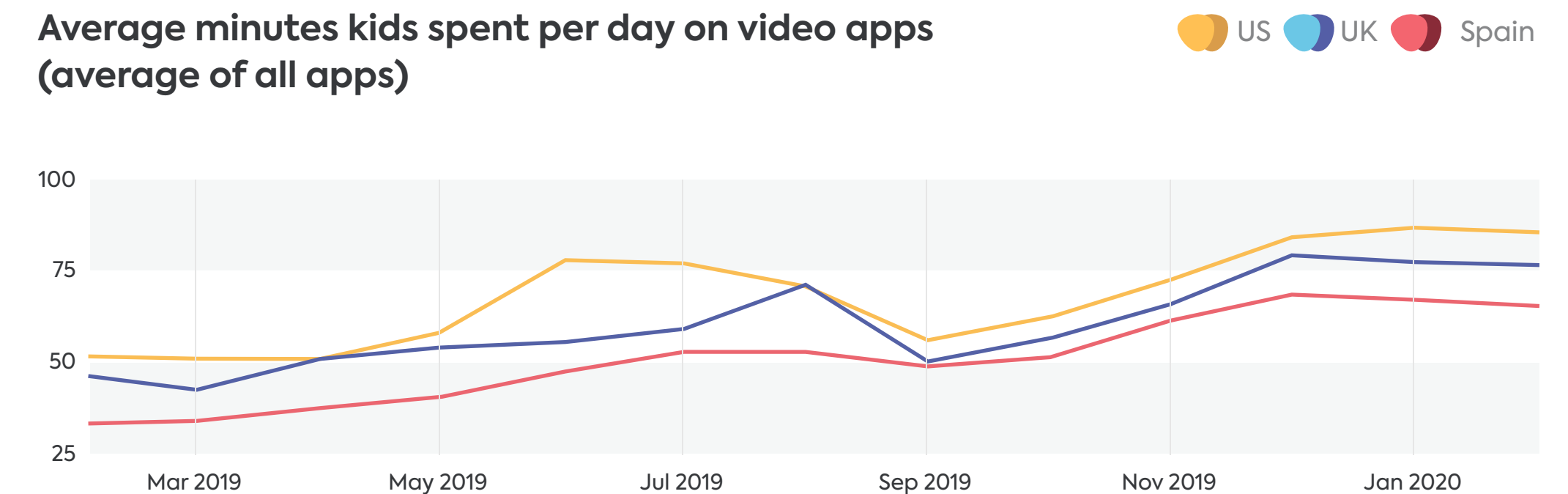


While the names of most popular apps – YouTube, Netflix, Hulu, Twitch, BBC, Movistar, Disney, etc. – might not be surprising, the amount of time children spent watching online videos is. In 2019, on average kids spent 88 minutes per day in the U.S., 77 minutes per day in the U.K. and 66 minutes per day in Spain. While the average time spent online varied by country, all spiked over holiday periods. For example during the half term holidays

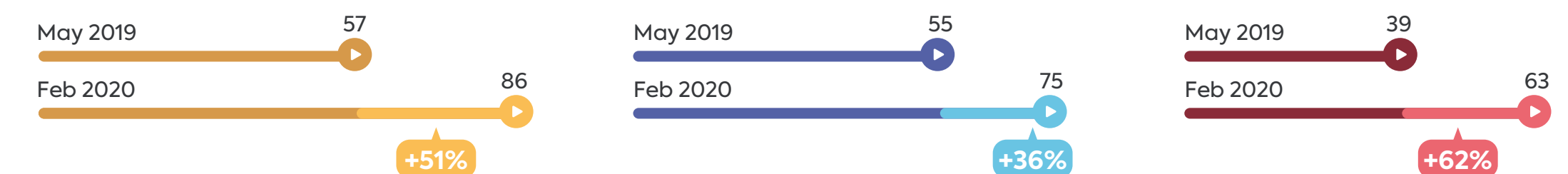
in the U.K., the average use of YouTube increased by 46%.

Much of the non-seasonal growth during the year was driven by YouTube. By early 2020, children spent 86 minutes per day on the popular video service in the U.S., 75 minutes per day in the U.K. and 63 minutes per day in Spain, an increase of about 50% compared to May 2019.

**Average minutes kids spent per day on video apps
(average of all apps)**



Average daily minutes kids spent on YouTube



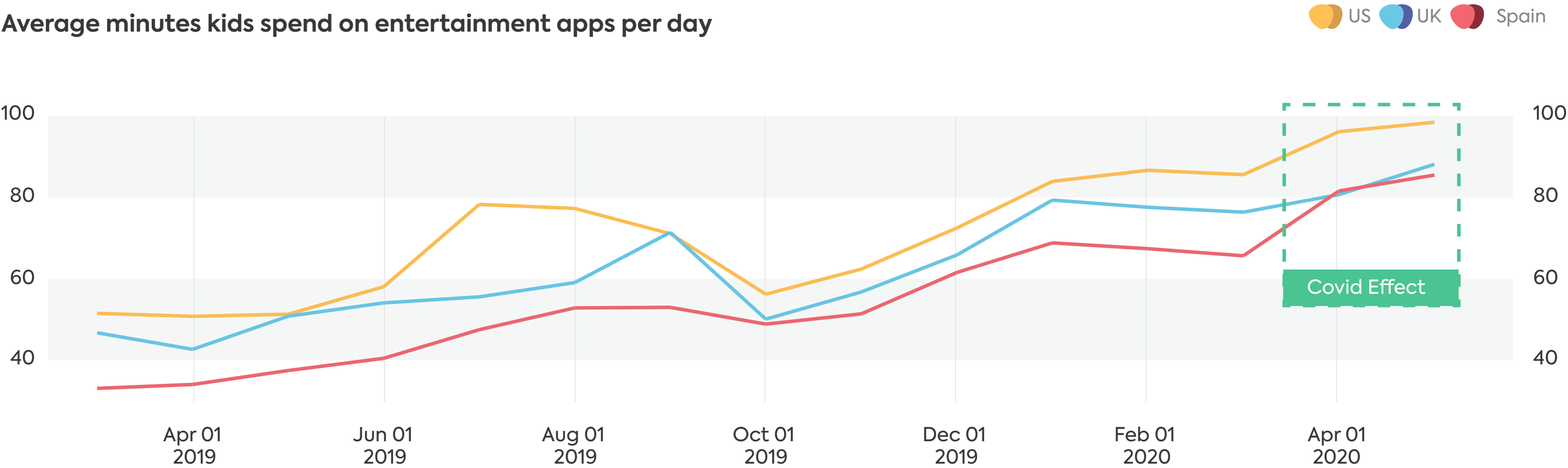
The Covid-effect

The **Covid-19 lockdowns have accelerated the growth trends already seen in 2019 and early 2020.** The average time children spent on entertainment apps by mid-April, at the height of coronavirus social distancing measures in all three regions, was up to 99 minutes per day in the U.S., 88 minutes per day in the U.K. and 86 minutes per day in Spain respectively.

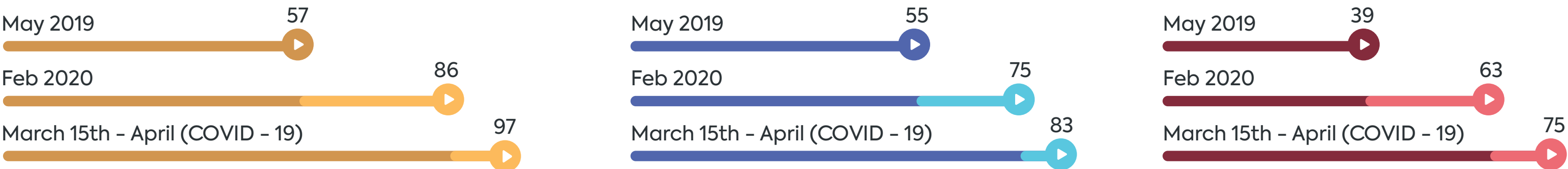
Once again, this trend was largely driven by YouTube, with the average time kids spent on the platform reaching nearly 100 minutes a day in the U.S. (up from 57 minutes compared to May last year).

While we classify TikTok as a social app, it bears mention here in online video, too. During the Covid-19 pandemic, TikTok use increased, making it the social video platform of choice for most young people. Although the content they offer is different to what can be found on YouTube, there is still significant overlap and TikTok is increasingly a direct competitor. See the Social Media next chapter to learn more.

Average minutes kids spend on entertainment apps per day



Average daily minutes spent on YouTube



What's Next

What to expect

In the coming year, we expect the **ongoing shift to digital will continue to accelerate**, with traditional TV remaining the heartland only for local programming and news. We also think it will be a few more years before the fragmentation of the video market reverses. In 2020, families will still be subscribing to multiple streaming platforms, in order to view all the top series. Expect some new blockbuster series from each platform, including YouTube. We expect Disney+ to become an increasingly popular choice for children and teens.

We predict that just as Facebook has become irrelevant for many young people, **YouTube may face a similar fate**. This is because newer platforms like **TikTok will grow in appeal**, but also because many of YouTube's children content creators will start to leave the platform due to increasing regulation and resulting loss of monetization.

Expect to see TikTok diversifying their offering to include music videos, premium content and sports in the near to medium-term. Though still under scrutiny for [child privacy violations](#), the positive measures TikTok has taken to [improve](#)

[safety on their platform](#), as well as their [recent donation of \\$250m to the Covid-19](#) cause also helps their case. Having said all this, we expect YouTube to still hold the top spot in our 2020 Online Video data, but by a smaller margin

We don't expect a 'reset' to pre-Covid-19 screen times now that more children and parents have become used to increased screen-time. This means the **amount of time spent watching online video will stay at the higher 'lockdown' levels, and may even continue to increase**. How can that be? With more competition in the market, video platforms will have to do more to keep users hooked, so expect persuasive design and recommendation algorithms to be working overtime.

On a positive note, we believe YouTube and TikTok will follow in the footsteps of [Netflix](#), and make moves to **improve safety measures for children**. These developments will continue, providing better visibility on age-gating, the removal of inappropriate content, and the monitoring and management of screentime.



We expect that the ongoing shift to digital will continue to accelerate.

Expert advice for parents

What to do about it

In the meantime, what can parents do to get screen-time under control? For starters parents need to **‘tear down the walls.’** All too often, families are separated by walls and screens as they experience their own entertainment journey. This makes families less connected by common experiences and puts children more at risk of exposure to harmful or unwanted content. It also makes them more susceptible to binge watching or excessive screen time which can lead to obesity and can harm eye health. We recommend parents find opportunities for co-watching, by bringing the family together again around a video that everyone can enjoy. Or simply watch whatever the child is watching.

We understand that is not always possible, which is why we created our YouTube Monitor feature which allows parents to check and see which videos their child accesses. It brings great peace of mind and is an excellent conversation starter.

Manuel Bruscas, Qustodio VP of product and creator of our YouTube Monitoring feature,

emphasizes that “People, especially children, don’t realize that video platforms like YouTube are **specifically designed to keep you hooked.** Like social media, these platforms often use the power of recommendations and retargeting to increase the watch-time of users. And with YouTube’s default auto-play setting, It is just too easy for children to get pulled into mindless, explicit or even dangerous content. Parents need to be aware of what their children are watching and set consistent time limits to ensure healthy viewing habits. Try to **set breaks every 45 minutes.**”

Dr. Nicole Buerkens, Holistic Child Psychologist, reminds parents that “the research is clear that increasing exposure to blue light prior to bedtime can affect sleep patterns. Children who do not get their full hours of recommended sleep have poor concentration and behavioral problems. I suggest parents enforce strict rules around screen time at bedtime. **Screens should be off at least 1 hour before bedtime.**”

Dr. Havert, Family Medicine Doctor, is especially concerned that more young people are

spending increasing amounts of time watching videos online, and at younger and younger ages. She warns, that “each additional hour of being sedentary without any corresponding physical activity contributes to an already troubling child obesity rate.” She recommends that “parents be mindful of how much time their children are spending on screens and balance that with adequate movement and exercise (**at least 60 minutes or more a day of vigorous activity**). This is helpful not only for one’s physical health, but also supports mental health. Physical activity can foster better self esteem, a greater capacity for learning, and can potentially help children and adolescents manage stress better. Developing these healthy habits when we are young is critical and can carry through to adulthood.”

“I recommend that parents be mindful of how much time their children are spending on screens and balance that with adequate movement and exercise”

Dr. Havert, Family Medicine Doctor



Social Media



Industry Trends

What to know

An [estimated 3.8 billion](#) people worldwide now use social media. And social distancing has made us more social with the “three sisters”, Facebook, Instagram and Whatsapp, all owned by Facebook, leading the pack of this new global information infrastructure.

Given its influence, this sector is facing increased scrutiny and the threat of regulation. In 2019, Facebook was forced to take responsibility over data ownership, fake news and online harms. Despite these blows, Facebook accounts continue to grow globally. But doubt is growing as to how long that growth will last. Children are spending less time on the app as they switch to other platforms such as Instagram and TikTok. In fact, in 2019, [TikTok became one of the top five most downloaded apps \(worldwide\), that was not owned by Facebook](#).

But those platforms have their issues too. Instagram hit headlines in early 2019, with the [suicide of Molly Russell](#) last year. Her parents partly attributed her death to self-harm

content she had engaged with on the app. The impact of social media on mental health is an ongoing point of investigation.

TikTok also has its hands full. The videos posted on the platform are mostly harmless, but some are dangerous, including the “[Skull-breaker challenge](#)” which has landed many young people in the hospital and others charged with aggravated assault. There have also been reports of online predators on the app. And in [2019, TikTok was forced to pay millions to settle a children’s privacy law violation](#).

In response to parental pressure and legislation, Social Media companies have put up age-gates, limits on the age children can access their apps. Today they are set at 13, the age dubbed “the Internet age of adulthood,” but many experts, parents and legislators think that this is too young and are pushing to increase the limit to 16. Nevertheless, age controls will be hard to enforce and easy to bypass, and though in-app parental controls are improving, they still have a long way to go to keep kids and their data safe.

Kids' App Use

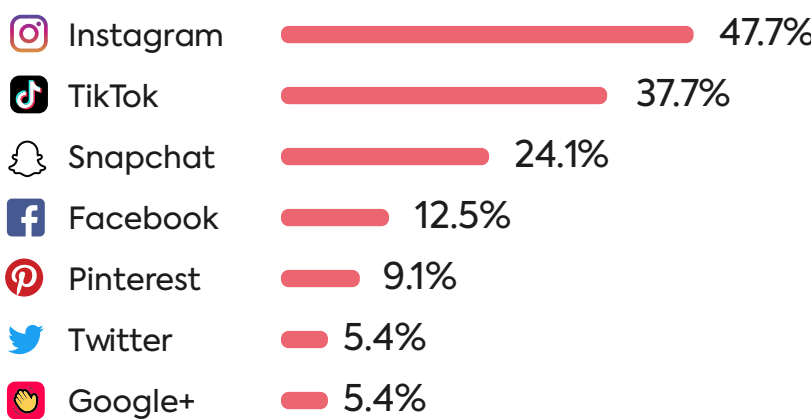
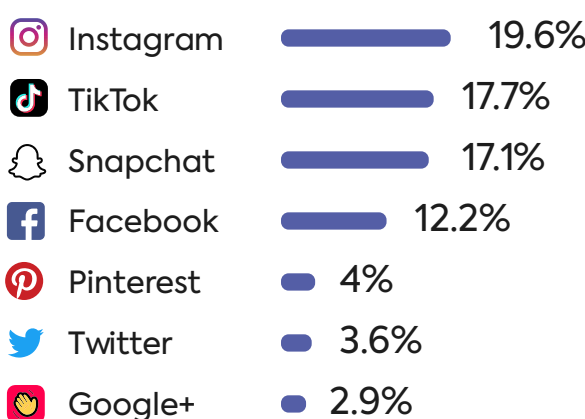
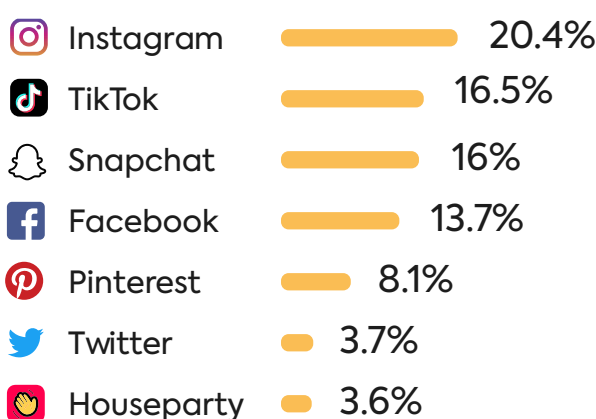
How are children socializing

In 2020, average time spent per day on social apps increased dramatically by around 100% across all platforms when compared with 2019. TikTok, Instagram and Snapchat ranked as the most popular social apps across all our key markets, with TikTok showing the biggest gains throughout the year.

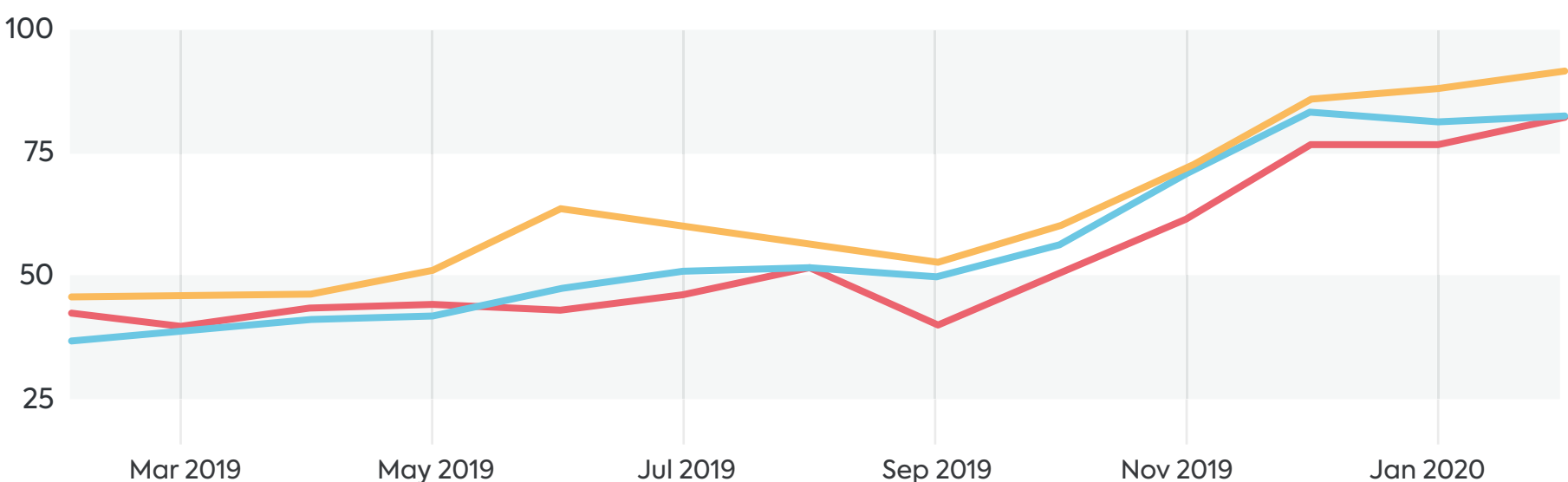
In Spain, average time spent per day on social media increased steadily from 37 mins in January 2019 to 83 mins in Feb 2020. Similarly, in the UK, it increased from 43 to 83 mins per day in the U.K., and from 46 to 92 minutes per day in the U.S.

TikTok was the main driver behind the growth in the average amount of time spent on social media apps with average time spent in each of our key markets almost doubling in just 9 months. Other popular social apps, such as Instagram and Snapchat also increased, but to a lesser extent.

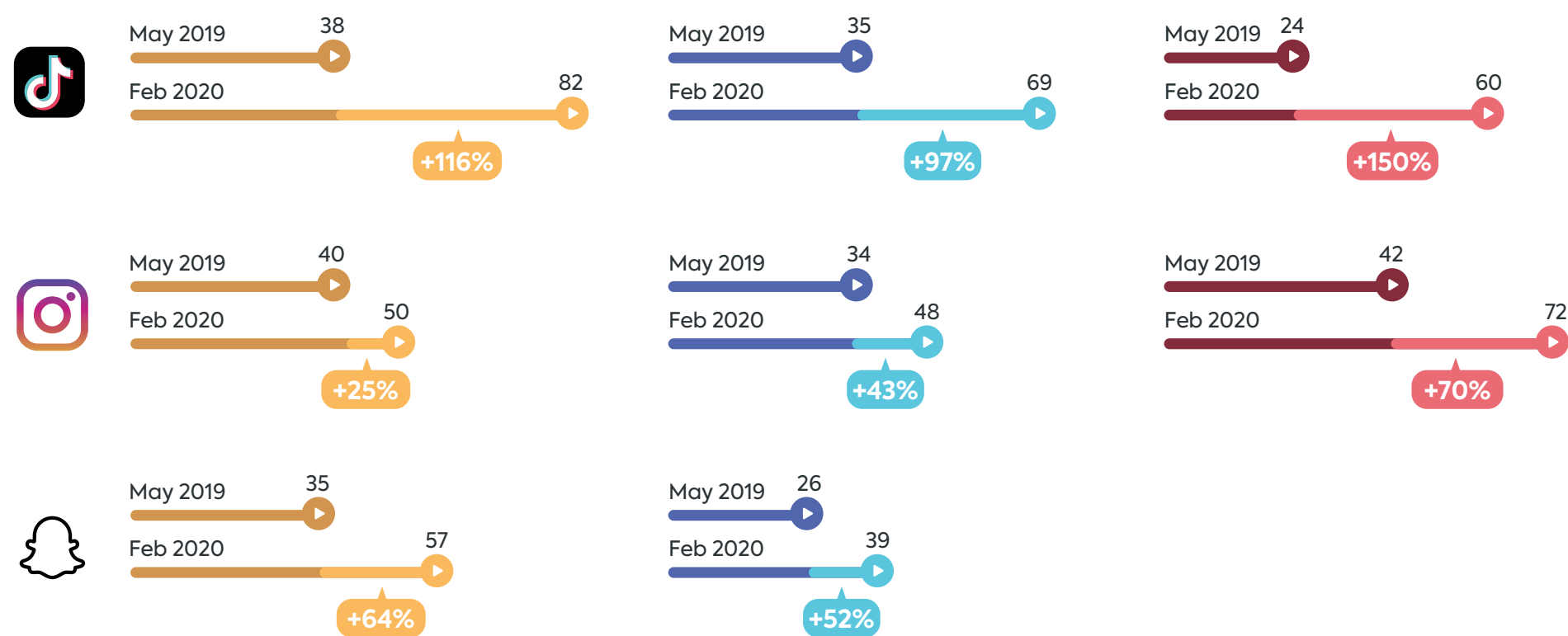
Percentage of kids using social media apps (Feb 2020)



Average time spent per day on social media apps



Average minutes per day spent on TikTok, Instagram and Snapchat

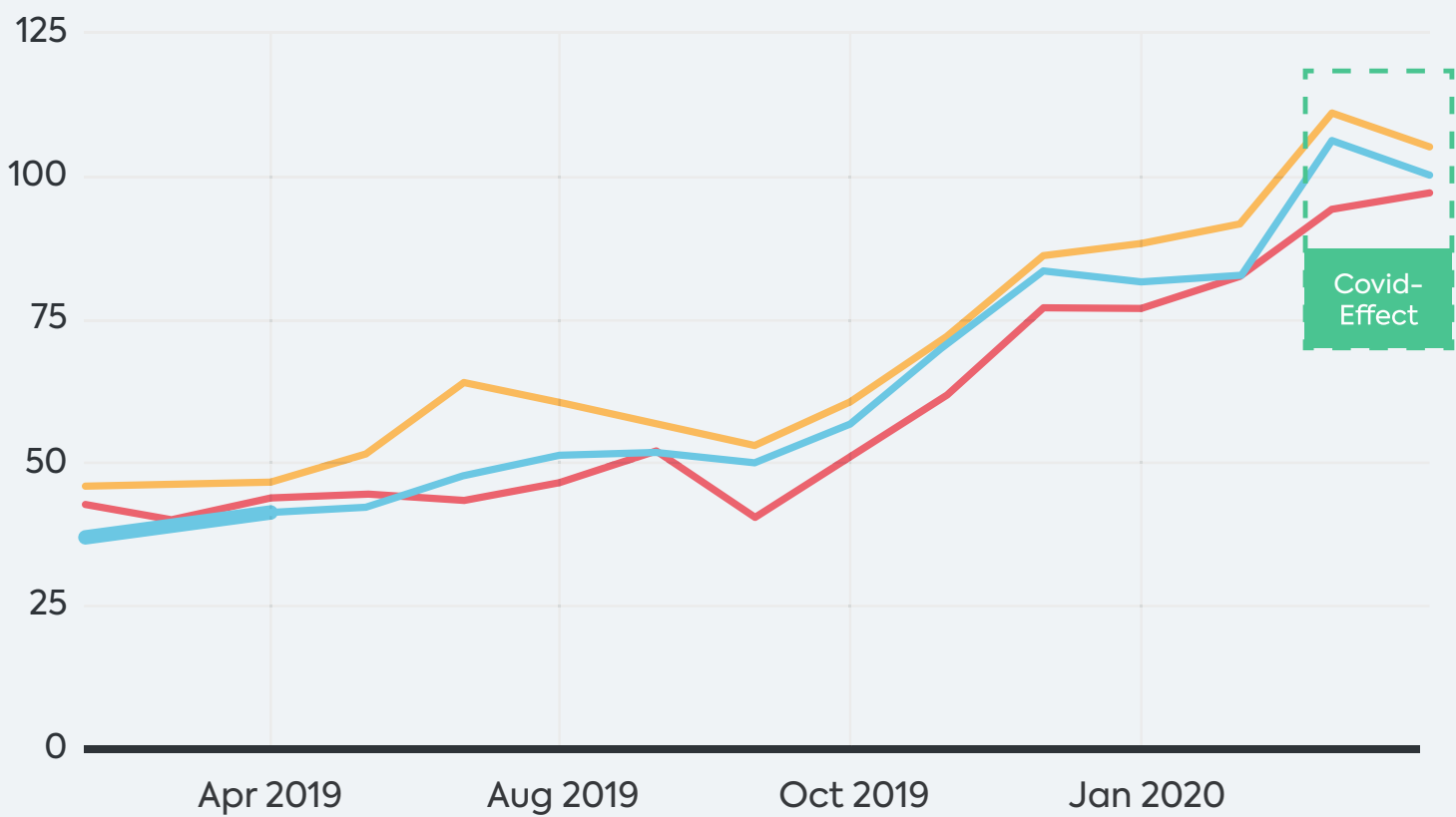


The Covid-effect

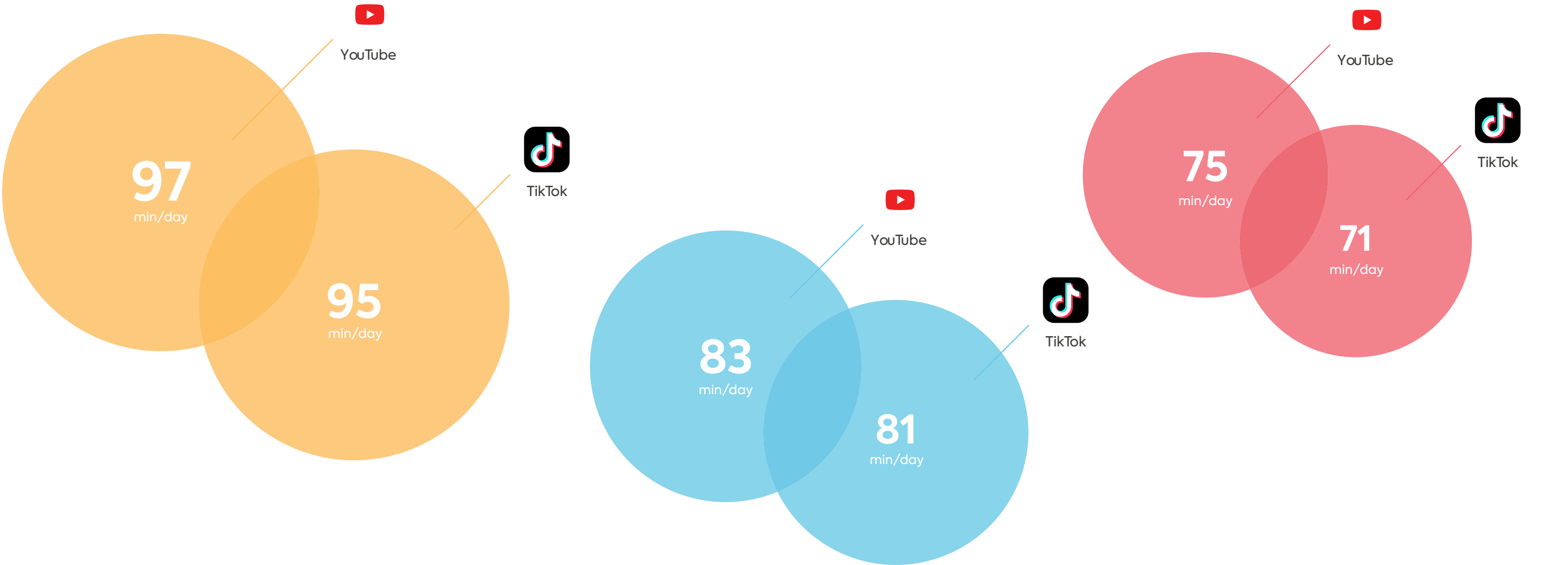
Covid-19 lockdowns pushed the huge rise in the popularity of social apps even further across major markets. The average amount of time kids spend using them continued to rise steadily, increasing 170% in comparison to the start of 2019 in Spain, and 130% in both the U.K. and the U.S.

March and April were also the months that officially crowned TikTok as king of social media with the highest percentage of kids using the app across all three markets. TikTok also rivaled YouTube as the app where children spend the most time per day.

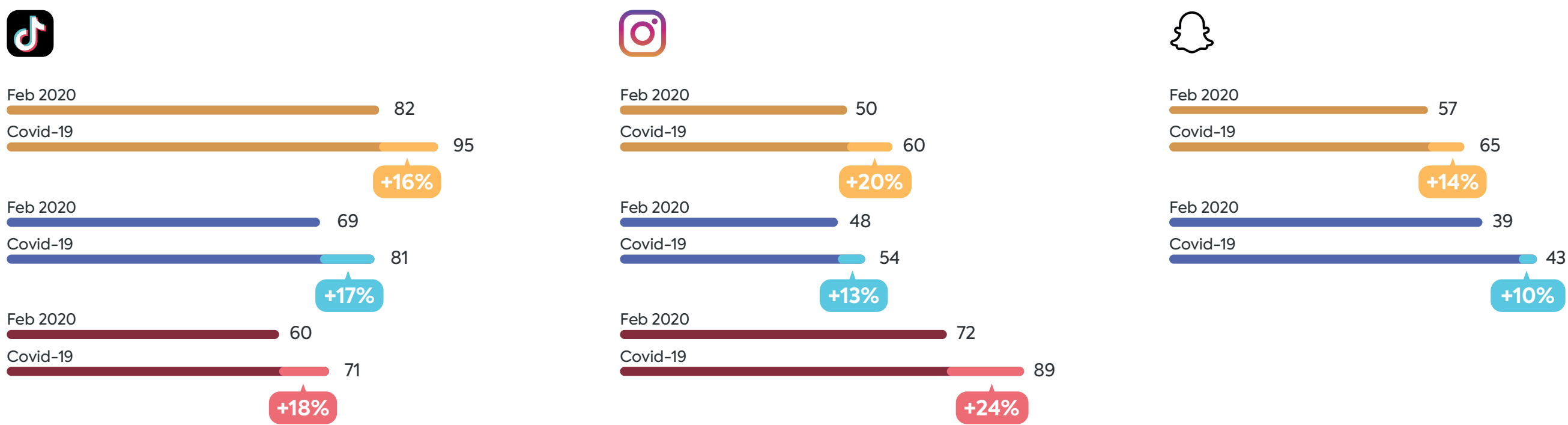
Average minutes spent per day on social media apps



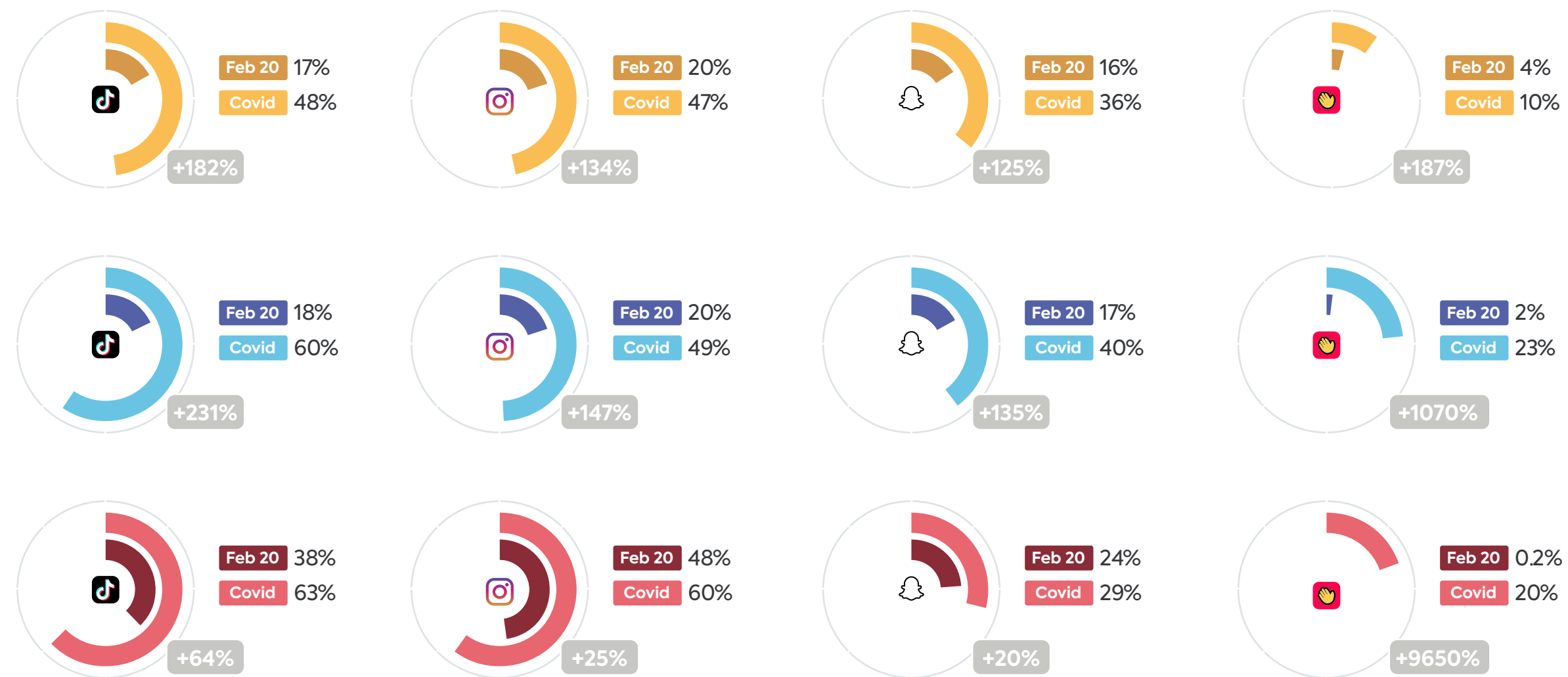
Average minutes kids spend per day on YouTube vs Tiktok during Covid-19



Average minutes kids spent on Tiktok, Instagram and SnapChat



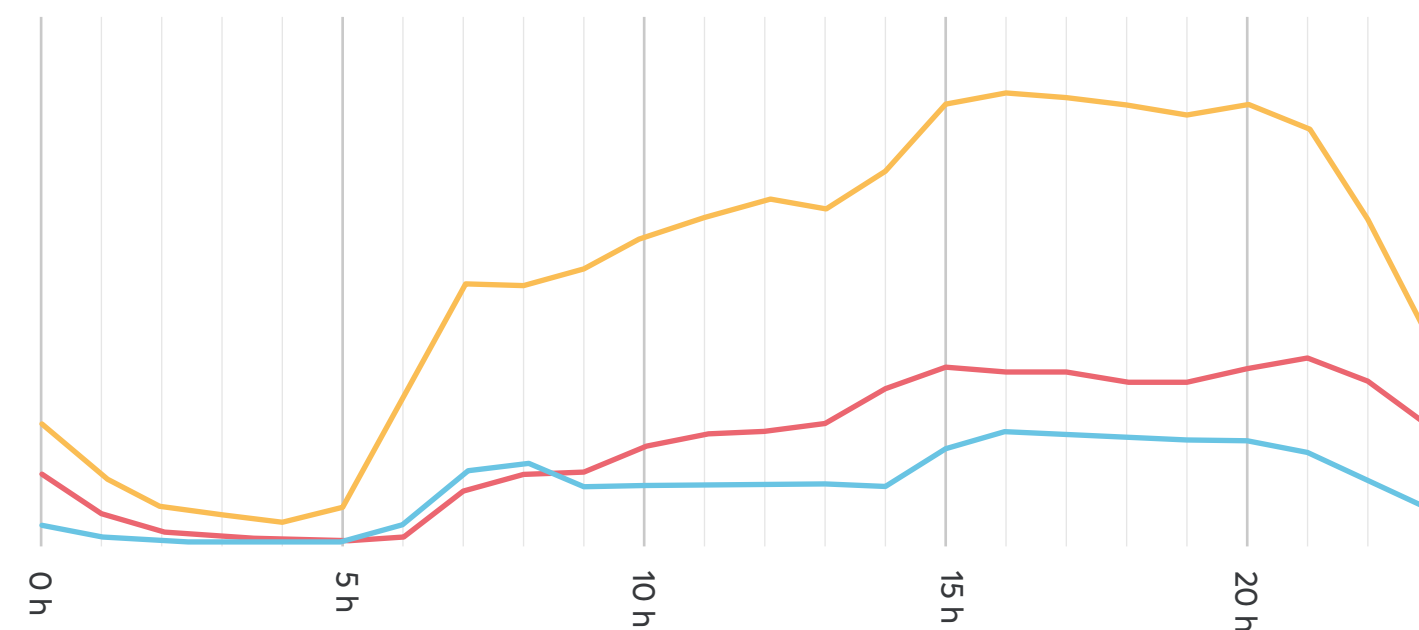
% of kids using TikTok, Instagram, Snapchat and Houseparty



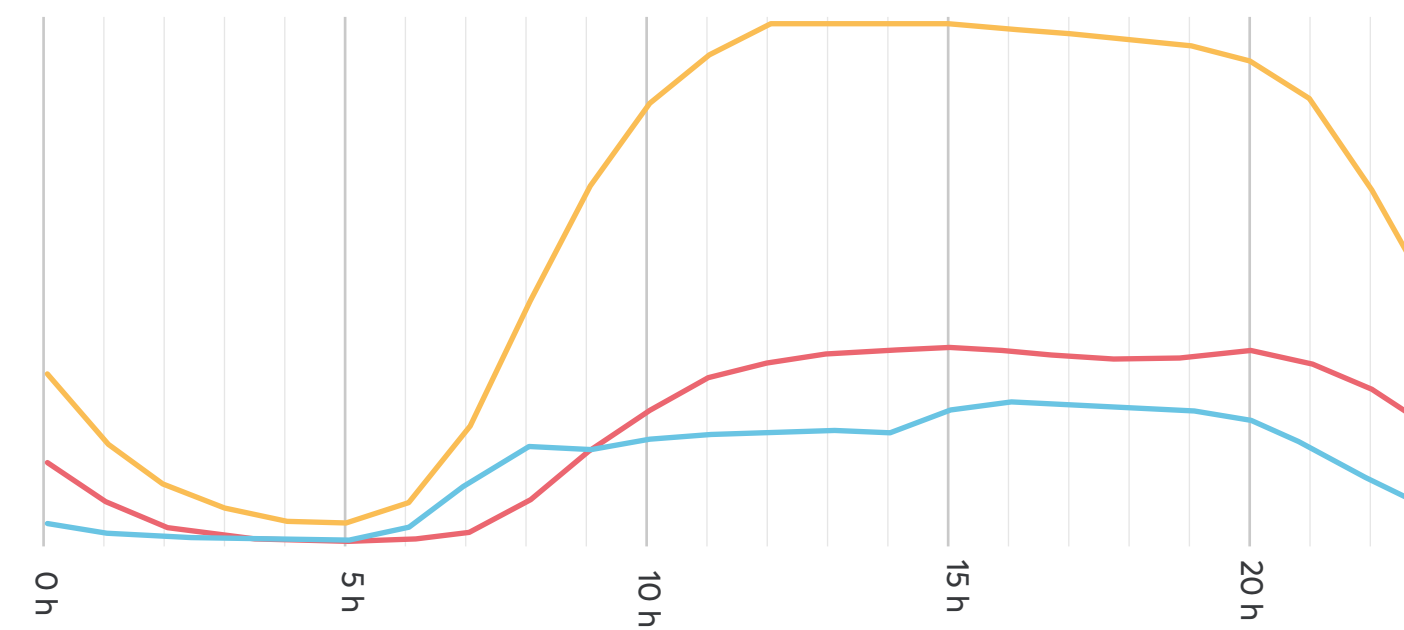
Houseparty bears special mention as the social video app which was unheard of in 2019 became a must-have for many kids during Covid-19. In Spain, where only 0.2% of kids were using Houseparty in February, 20% of them were using the app by April.

Social media only stops when children sleep. While there are dips during school-times and in the evenings, children are still engaging at this time and all day long. Social app usage is clearly highest after school, but children stay connected up to midnight and at early hours of the morning too. During the Covid-19 period, kids use social apps throughout the day, filling in the downtime buffer that going to school used to create. The Coronavirus lockdowns have cemented social media as part of overall social engagement, not an alternative to it.

Social media app usage throughout the day (Feb 2020)



Social Media app usage throughout the day (Covid-19)



What's Next

What to expect

Though high levels of social use have become accepted as a normal way to socialize, especially during Covid-19 social distancing measures, we expect the rest of 2020 to be full of scrutiny as more time on these apps leads to increasing exposure to the dangers of bullying, online predators, sexting and so on. Additional legislation however, is not likely until 2021 as governments are largely overwhelmed by the coronavirus, rebuilding economies and upcoming elections. In the meantime, policing these apps will remain difficult.


Child mental health will continue to be a topic of great importance as researchers and professionals try to unpick social media's effect, both positive and negative, on children's happiness. We are hopeful of an environment where schools, parents and children get better at collaborating so that social media can deliver more good and less harm.

On the app level, in 2020, the popularity of TikTok will continue to grow. As was the case with Facebook 18 years ago, the audience will start

to shift upwards, with more adults and then brands embracing the product. Along those same lines, we expect Facebook's social network to start seeing more of a decline, but its importance as a platform underpinning much of the internet as well as its sister apps, Instagram and Whatsapp, will not go away.

All social media apps will look for ways to expand their reach to the point where you won't be able to tell if they are a video platform, a music platform, a chat or a game. Fortnite's partnership with TikTok in January to promote an emote (items players can buy to act out entertaining moves in a game) contest, is just one of many examples of this to expect this year and beyond.

These fusions, mashups, expansions or partnerships will make it harder for parents to manage parental control settings, and increase the need for independent apps, like Qustodio, to help families maintain consistency in time limits and content restrictions across apps.

A person with long blonde hair, seen from the back, wearing a red knit beanie and a dark jacket. They are holding a smartphone in their right hand, displaying a photo of a person. The background is a blurred autumn scene with yellow and orange leaves on trees.

We are hopeful of an environment where schools, parents and children get better at collaborating so that social media can deliver more good and less harm.

Expert advice for parents

What to do about it

Social media is now an integral part of young people's lives. But it is also a place where they can be exposed to uncensored, inappropriate content, to online bullies and to challenging social comparison. And, since Covid-19 lockdowns have brought more of life online, this has become the case nearly 24 hours a day. Here are some tips from our experts to help you deal with the threats posed by social media.

Georgie Powell, Digital Wellbeing Expert, reminds parents, "The single most important thing parents can do to help keep their children safe is to keep up open conversations about social media tools they are using, how they are using them and who they are using them with. Remember your kids don't see a distinction between online and offline life, so telling them they can't chat and play with a friend online is the same as saying they can't do those things in person. Try to **climb into your child's skin** before taking any harsh measures."

Manuel Bruscas, Qustodio VP of Product and Data Expert, reminds parents that "Facebook, Instagram and Whatsapp are owned and controlled by the same entity. This may in time lead to features which work across plat-

forms (like messaging for instance), but in the meantime, it is important to **remember that your child's data and usage profile is a collection of their activity across all Facebook platforms**. Need more information? Watch [The Great Hack](#)."

Maria Guerrero, Family Psychologist, encourages parents to "remind their children to be conscious and in control of how they engage with social media. **Point them toward positive role models online** (see [disrupt your feed](#) for examples), and help them be strict with themselves about when they use social media, and when they take a break. And remember you are also an important role model. Make sure your online activities are controlled and balanced, too."

Dr. Nicole Beurkens, Holistic Child Psychologist, recommends, "**If your child is on social media, you need to keep an extra eye on their habits as well as their overall mood and behavior**. Teenagers today are experiencing higher than ever levels of mental health issues, and social media use has been linked to problems with body image, depression, self harm and even suicide. The 24/7 nature of social media, its permanence, and its ability to cre-

ate a fake reality coupled with young people's underdeveloped frontal cortex – the rational part of the human brain that isn't fully developed until age 25 – may be to blame. If you have concerns about your child, and talking to them has not led to positive change, I recommend you contact your local health care professional for support."

Lauren Seager-Smith, CEO of Kidscape, the anti-bullying charity, warns, "We see first hand the risks of online bullying for children on social media. Whilst social media can be a really positive environment for socialising and building relationships, it is also home to the playground of bullies. But unlike the school playground, this can't be left behind – it is with the victims 24/7. If you suspect your child is a victim of bullying, be quick to collect evidence of the bullying activity, block your child's contact with the bully – remember a bully can enter not only through social media but through chat rooms on game platforms too. **Help the child understand that the bullying is not their fault** and that though hurtful, this is something they can overcome and learn from to become more resilient."



“If your child is on social media, you need to keep an extra eye on their habits as well as their overall mood and behavior.”

Dr. Nicole Beurkens
Holistic Child Psychologist

Games



Industry Trends

What to know

Mobile gaming, which last year [represented more market value than PC games or console games](#), is part of a huge and ever growing industry that often thrives on addictive content, much of it violent. While a convincing study from the [Oxford Internet Institute](#) absolved violent video games as the cause of some of society's violent behavior, evidence continues to mount around the negative effects of excessive game time and the addictive tactics used by makers of most online games.

Loot boxes, a common feature which allows players to pay for random items in video games are of particular concern because they have been linked to creating betting behavior in children. The [National Health Service \(NHS\) has seen a four-fold increase in child gambling addiction cases since 2016 and has had to open special clinics](#) to deal with the growing problem. In early 2019, the [World Health Organization \(WHO\) officially added gaming disorder](#) as a disease to its International Classification of Diseases diagnostic guide for clinicians.

And, game chat rooms are continually called out [as easy access points for sexual predators](#) to get in contact with and exploit young people. Crimes of sextortion, duping children into sending nude or explicit photos of themselves and then blackmailing them, is on the rise to such a degree that the [FBI launched "Stop Sextortion" awareness campaigns](#) in schools in September of last year.

Despite the warnings, the lure of mobile video games is increasingly strong. Mobile video **games are specifically designed to be addictive**. Add to that the attraction of being rich and famous, such as when [American teenager Kyle Giersdorf](#) made headlines worldwide for taking home \$3 million for winning a Fortnite tournament and the Covid-19 lockdowns, and it is not surprise kids are spending more time playing online games than ever before in history, and [86% of parents complain it is too much](#).

China has done the most so far to protect children from the harm of mobile video games. In 2019, the Chinese government took the bold move of [banning children from playing online games](#) for more than 1.5 hours a day and between 10pm and 8am. The western world still lags behind and leaves most of the responsibility of protecting kids from the harm of video games in the hands of parents.

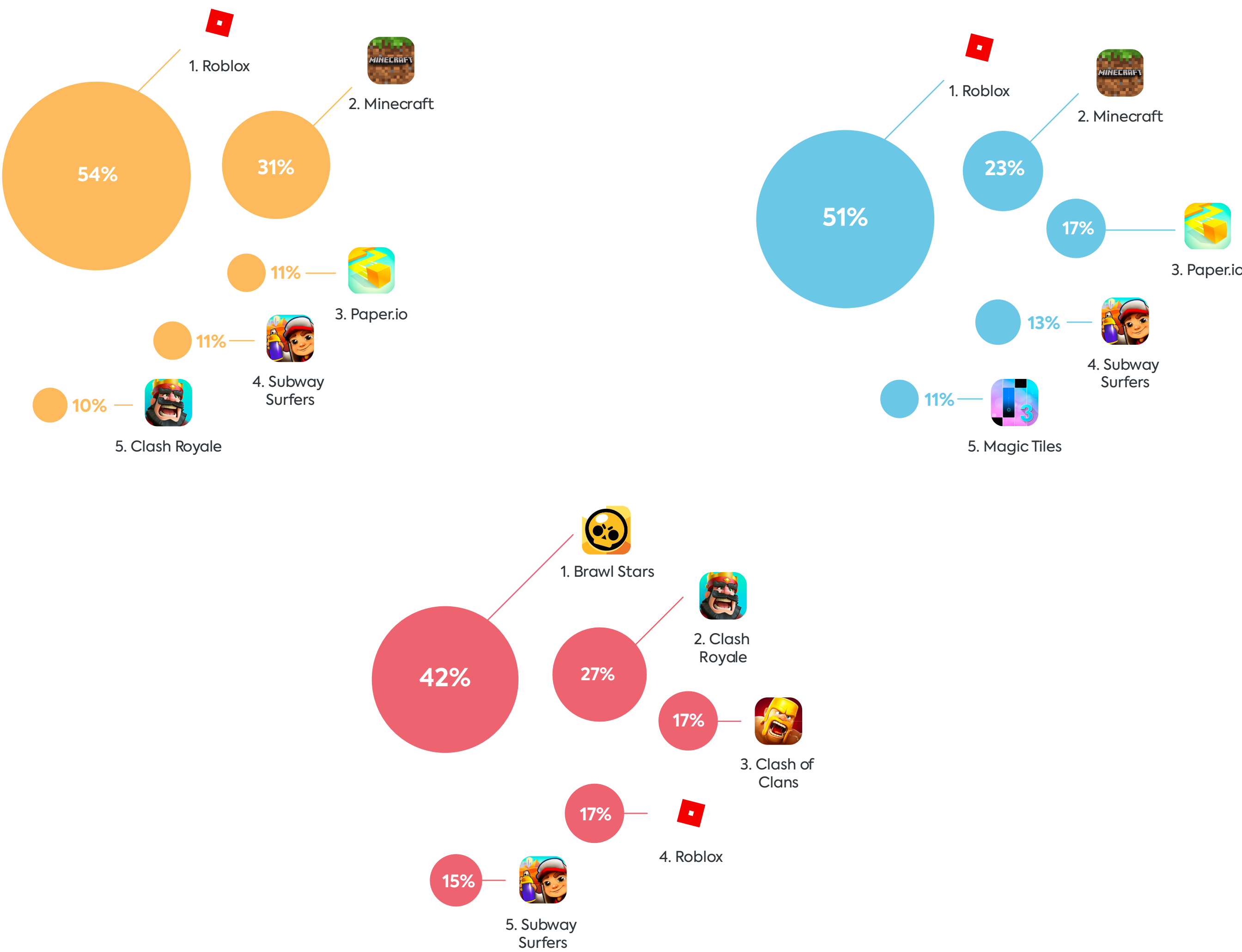
Kids' App Use

What games children are playing

When it comes to kids' gaming, there are quite significant differences in the penetration of different game apps by country. Roblox is by far the most popular app in the U.S. & the U.K., where half of children play it. However, in Spain, only 17% of kids play **Roblox**. Similarly, **Minecraft** is used by 31% of kids in the U.S., 23% in the U.K., and only 15% in Spain. In Spain, **Brawl Stars** is the most popular game, followed by **Clash Royale** and **Clash of Clans**.

Most popular games amongst kids 4-15 (As a % of all users in February 2020)

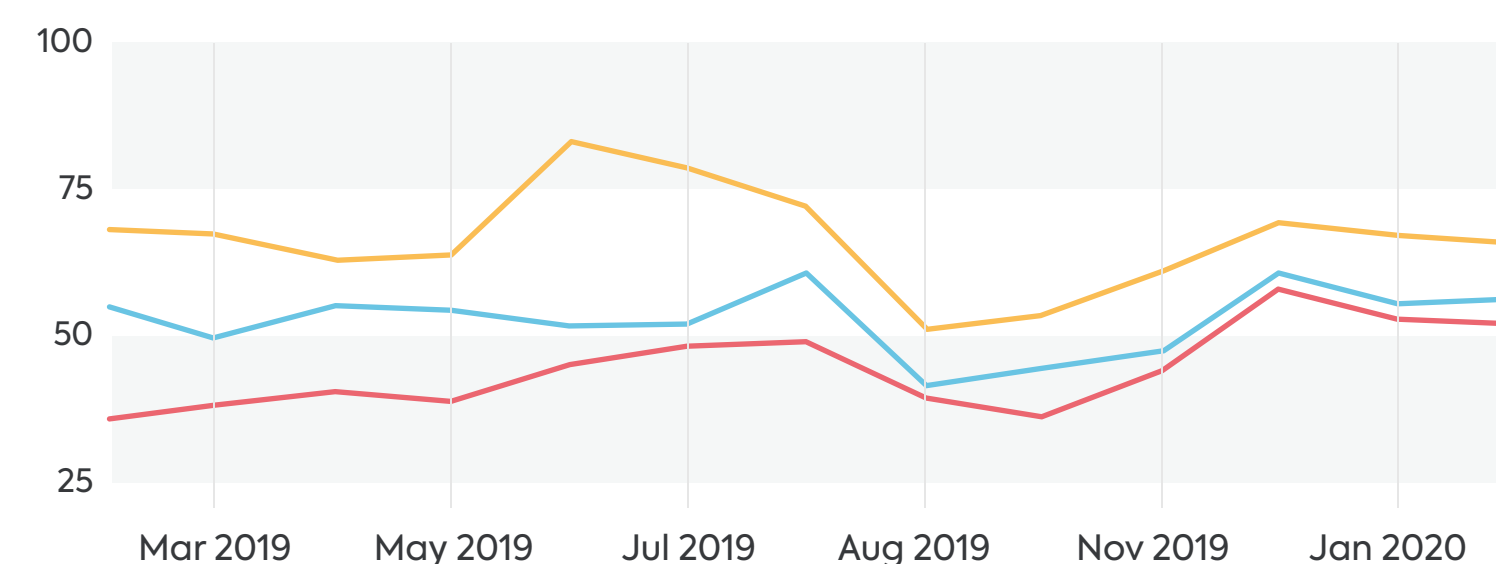
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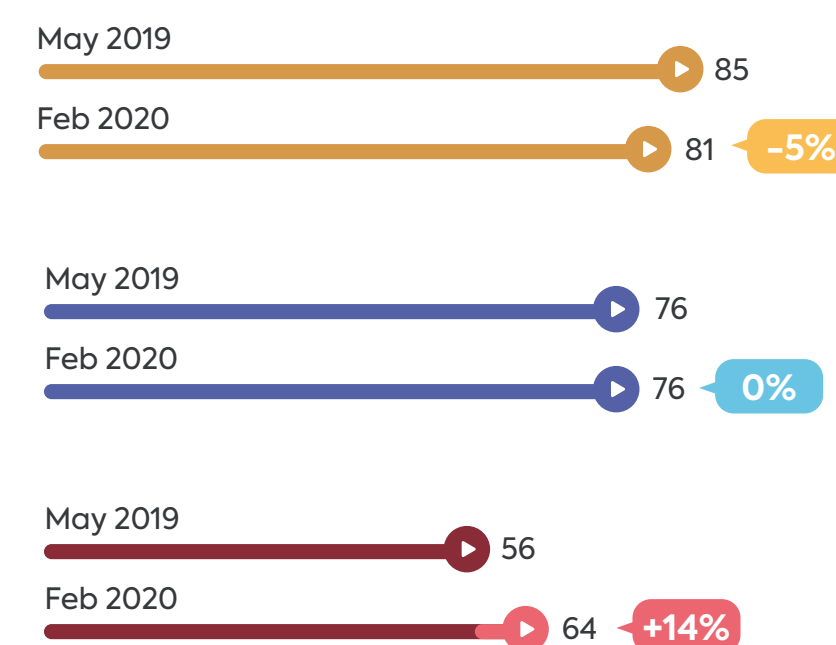
Source: Qustodio. February 2020



**Average minutes kids spent per day on gaming apps
(as an average of all apps)**



Average minutes kids spent per day on Roblox



● US ● UK ● Spain

On average, children spent 66 minutes per day playing mobile game apps in the U.S., 56 mins per day in the U.K., and 52 minutes per day in Spain.

Unlike online video and social media apps, the average time per day has not changed significantly between 2019 and 2020. Infact, in the U.S., the average time spent gaming actually reduced slightly from 68 mins in Feb 2019, to 66 mins in Feb 2020, before the Covid-19 lockdown impact.

Roblox is not only the most popular game in terms of percentage of users, it is also the game where kids spend the most time per day (more than the average gamer). In February 2020, this accounted for 81 minutes per day in the U.S., 76 minutes per day in the U.K. and 64 minutes per day in Spain.

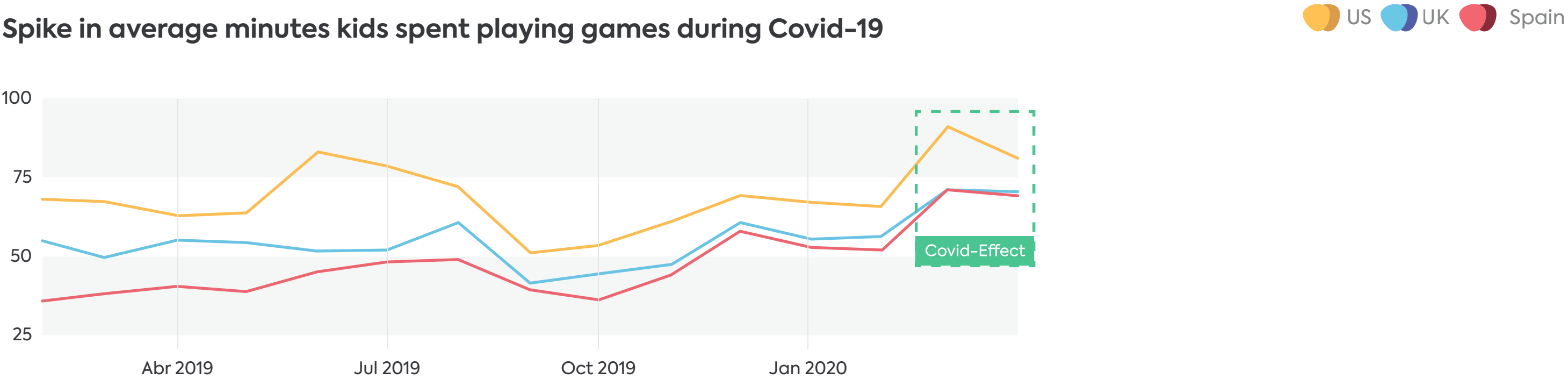
The Covid-effect

Interestingly, the Covid-19 lockdown restrictions have not had a huge impact on the percentage of children who are using gaming apps – a trend which is consistent across all apps.

However, the amount of time kids spent playing games has increased, rising from 52 to 69 minutes per day in Spain., from 56 to 70 minutes per day in the U.K. and from 66 to 81 minutes per day in the U.S. This upward trend has been most influenced by Roblox, with the amount of time kids spent on the popular gaming app up 31%, 17% and 45% respectively in the U.S., the U.K. and Spain. In the U.S., kids spent as much time on Roblox as they did on YouTube, at 100 minutes per day.

As with the use of social media apps, during Covid-19 lockdowns, the time of day when kids played online games expanded to fill the traditional school-time hours that used to act as a buffer to screen-time.

Spike in average minutes kids spent playing games during Covid-19

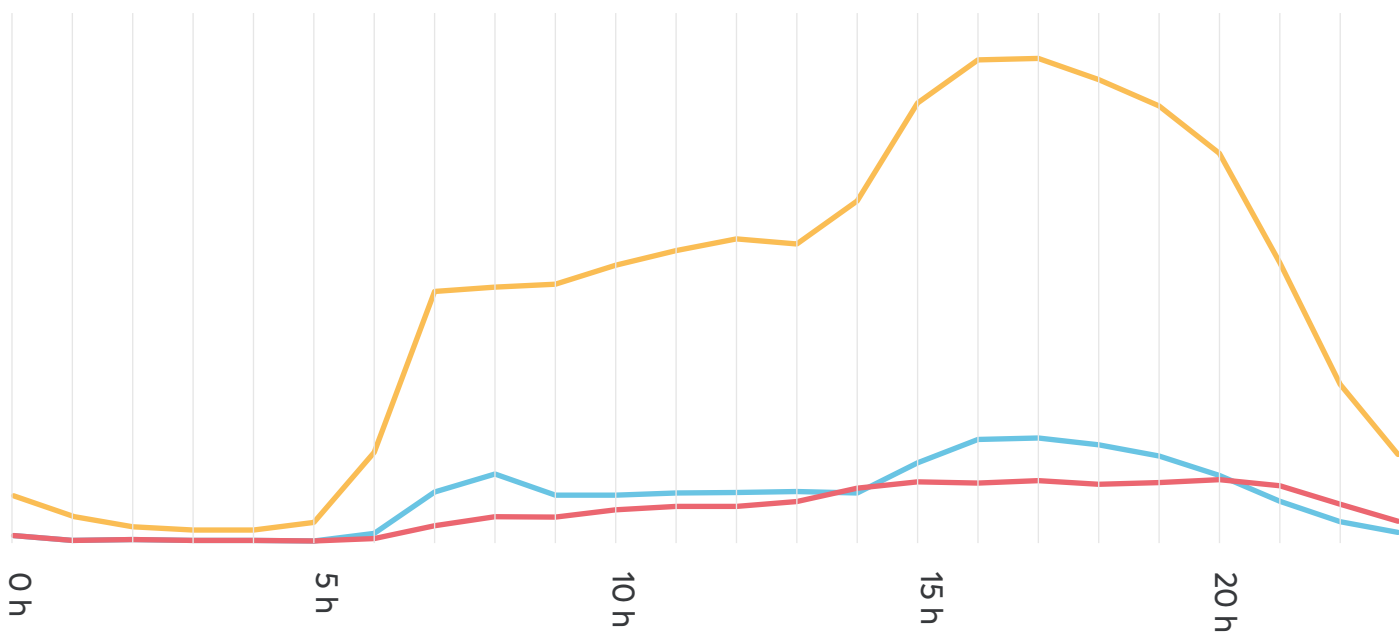


Average minutes kids spent per day on Roblox

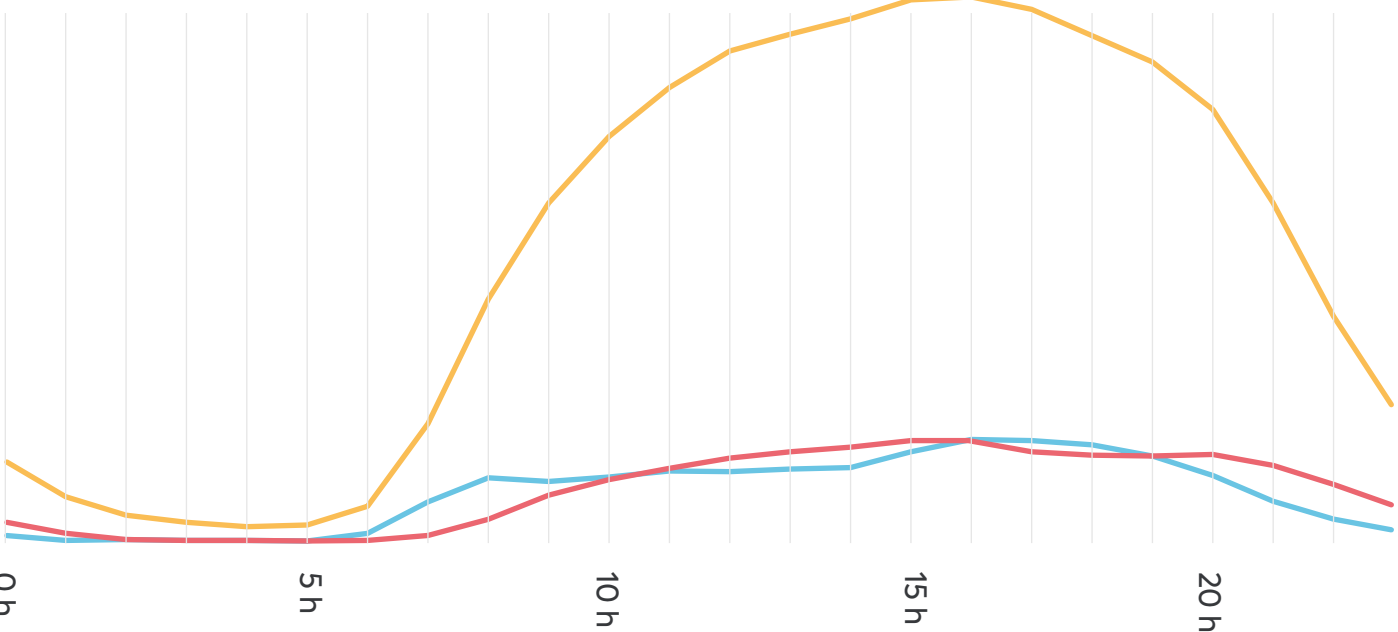


Times of days when kids play video games

November 2019 - February 2020



March 2020 - April 2020 (Covid-effect)




What's Next

What to expect

The gaming industry will continue to grow – the video game lobby is strong, the addictive nature of the games is built-in, and though Covid-19 lockdowns will loosen, the truth is games are fun. Kids, and adults, love to play them. We just hope stricter laws will come into place to protect children from the gambling habit-forming element and that the legal loopholes for loot boxes will be closed, if not this year, in early 2021.

Meanwhile we look forward to seeing the development of more 'honest games', those that are not designed to create addictive behavior and that do more to protect children from online predators. We also hope that game companies will introduce fair and realistic spending limits to prevent young people from spending thousands in games.

While **we don't expect game use to decrease**, we also don't expect it to rise. With this plateauing game usage and increasing scrutiny on addictive gaming practice, we expect game companies to find new ways to attract users or reawaken interest in their games, like the Fortnite partnership with TikTok mentioned in the chapter on Social Media. Cross-selling of this kind is likely to become the norm, blurring the lines between app categories and making it increasingly difficult for parents to set up controls to keep their children safe while playing the games they love.



We look forward to seeing the development of more 'honest games', those that are not designed to create addictive behavior and that protect children from online predators

Expert advice for parents

What to do about it

Between concerns around violence, screen time addiction, micropayments and loot boxes, parents have their hands full when it comes to kids and video games. Here are some more tips from our experts to help you manage your child's safety in the increasingly competitive and complicated gaming world.

Maria Guerrero, Family Psychologist, recommends, “parents sit down with their kids and watch them play, or even better, play together. When that's not possible **parents need to do their homework by checking video game ratings**. I recommend the [Entertainment Software Rating Board \(ESRB\)](#), the [Pan European Game Information \(PEGI\)](#) video game content rating system and [Common Sense Game Reviews](#). Regardless of the rating, parents need to ask themselves if these games reflect their family's values.”

Dr. Nicole Beurkens, Holistic Child Psychologist, points out “there is increasing evidence linking excessive time playing video games to poor physical and mental health. To reduce this risk, the American Academy of Pediatrics (AAP) recommends that parents of kids and teens 5-18 years old place consistent limits on

screen time from playing video games on consoles to tablets to smartphones. Playing video games should never take the place of getting a good night's sleep. A good way to ensure this is to **keep video game consoles in common areas of the house as well as to make sure kids retire their digital devices to a common area at night**. And set consistent screen time limits using parental control software like Qustodio.”

Dr. Cecily Havert, Family Medicine Physician, cautions, “**Video games should not take the place of being physically active**. Though some games can improve hand-eye coordination or require kids to move to manipulate the game through physical movement, most games do not. And **nothing replaces actually playing outside or participating in crafts or sports**. To get sedentary kids moving, make sure they have appealing activities outside of school. Even regular household chores can help your child get the minimum of 2 hours of physical activity they need every day.”

Marc Masip, Psychologist and Expert in Addiction, advises, “Do not allow your child to play games that contain loot boxes because

they prime gamers for other forms of gambling and gambling problems. We know if a child is exposed for very long periods of time to addictive experiences they risk developing any of the known **inevitable side effects from prolonged addictions such as social withdrawal**, mood disorders, anxiety or depression. It's just too much for a young mind to handle.”

Josep Gaspar, Qustodio's Head of Technology and Gaming Expert, concludes, “Playing games can be good for kids. But just like not all movies or TV shows are appropriate for their young minds, not all games are either. I **encourage parents to push the gaming industry to develop ‘honest games’, not addictive ones**. Parents need to double their effort to have a good understanding of their kids' digital life in a time when our kids are playing games more than ever and their time is at the center of such a huge economy.”



“Video games should not take the place of being physically active.”

Dr. Cecily Havert
Family Medicine Physician

Education



Industry Trends

What to know

The online education sector has seen rapid growth over the past few years providing new solutions for children and adults alike looking to advance their learnings. Many schools have also adopted online platforms to help them manage messaging and homework with children and their parents. In this classroom education market, tech giants like Google and Apple sell their computers or tablets to schools and parents at low prices as essential to learning and to closing the ‘digital divide.’

Meanwhile, there has also been growth in supplementary education apps which help to advance subjects such as math (e.g. Polymath) and languages (e.g. Duolingo). There are also a number of quiz apps emerging, many of which could also be considered games.

While this all sounds positive, education apps have also come under scrutiny. In 2019, parents, especially in the U.S., started to really question the presence of technology in schools. For example, Facebook started losing support for its Summit Learning platform. And, students, as concerned about screen-time as their privacy, are starting to complain too, [staging protests from Brooklyn to Kansas](#).

The backlash comes in large part due to the lack of studies proving a correlation between access to a device like a Chromebook and academic success. There is also growing worry about protecting students’ data. Some of the top private schools in Silicon Valley, where the children of the very makers of these apps go to school, have gone screen-free.

Meanwhile, in Europe, the [French government’s ban on using mobile phones during school hours](#) for all students at state primary and secondary schools is also being reviewed and implemented in the United Kingdom, Denmark or Sweden in order to prevent cyberbullying in the schoolyard and to cut down on distraction in the classroom.

Most recently, online education has really come under the spotlight, as the coronavirus pandemic has closed schools around the world and forced lessons online from home. As education platforms boom in use, parents are often overwhelmed with the new technology and worry about how all that additional time online will affect their children’s health. They also wonder, will their children be able to learn as and at the same rate? Preliminary research indicates [face-to-face learning is more effective](#), but the jury is out.

Kids' App Use

How children are learning online

Education apps as a whole (Classroom, Supplementary and Quiz apps) did not see much growth in 2019 and early 2020. Classroom apps led in all markets with Google Classroom the top education app overall in the U.S. and in Spain with 34% of kids using it in each market. In the U.K., however, Google Classroom ranked only fourth, and Show My Homework was the most popular education app in the U.K. with 38% of kids using it.

Among the supplemental apps that help children learn STEM (Science, Technology, Engineering and Math) skills and languages, Photomath (math) and Duolingo (languages), took top spots across all three markets. Meanwhile, Quiz apps Kahoot and Quizlet, were in the top 10 in all three markets.

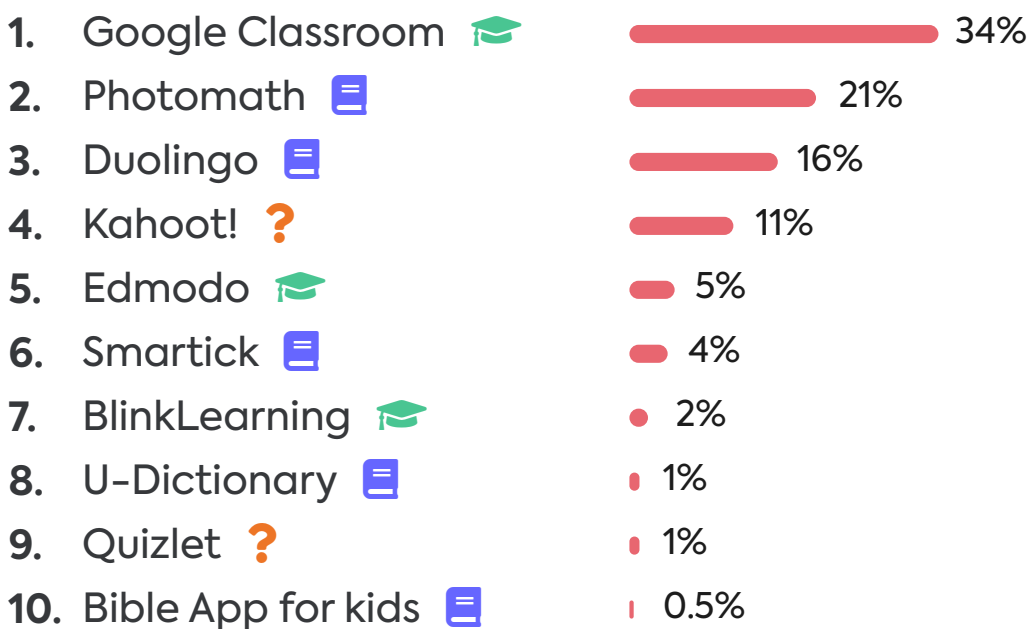
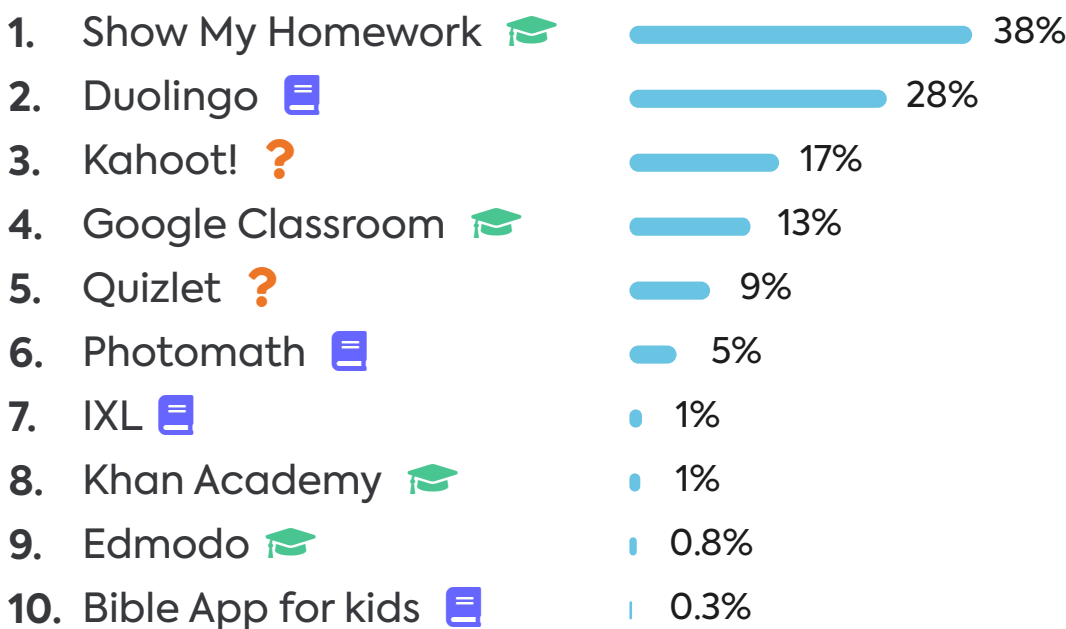
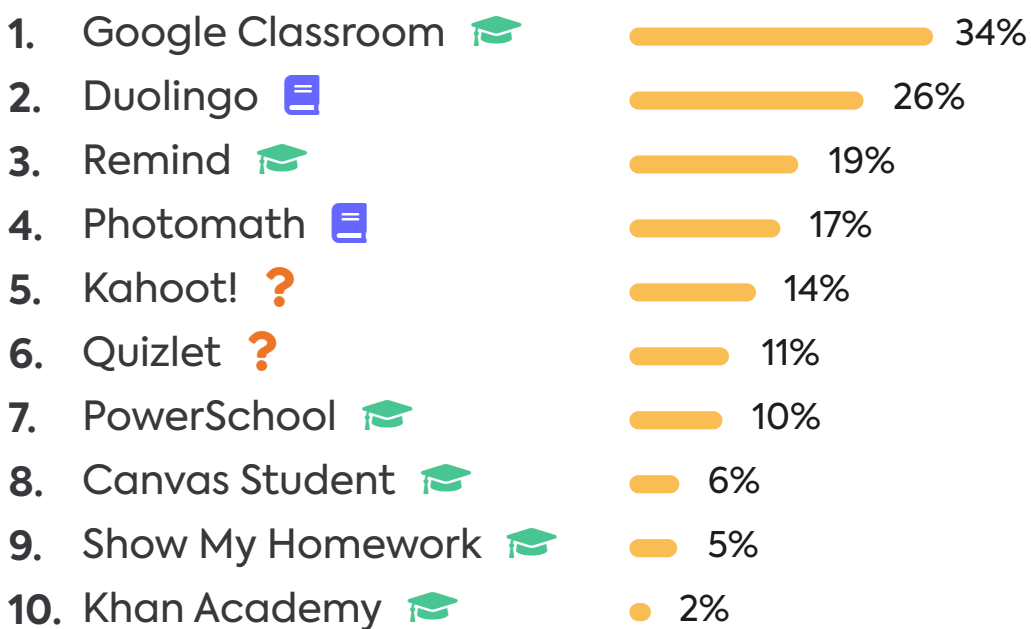
When looking at time spent on all education apps, it is insignificant when compared to other categories like social media. In February 2020, children in the U.S. spent only 8 minutes per day on education apps, 6 minutes per day in the U.K. and 14 minutes per day in Spain. Meanwhile they were spending an average 70

minutes a day on TikTok (see the Social Media chapter).

Despite the low numbers, we know from experience that children are now online for school much longer than 6 to 14 minutes. That time is not reflected here as is being spent on school-loaned devices that parents don't have control over and by video conferencing apps like Zoom which do not fall within our education category.



Education apps kids used most (as a % of all users, February 2020)



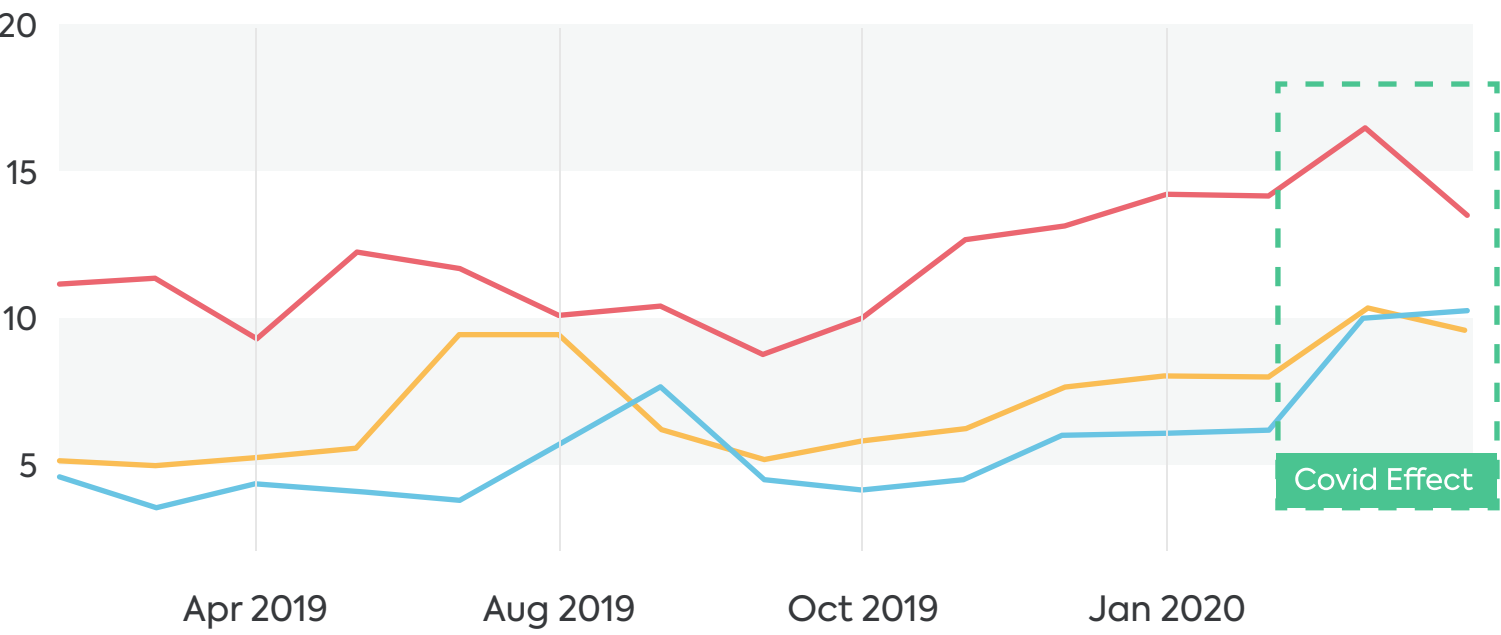
📖 / Quiz Apps
 🎓 / Supplemental learning
 ?

The Covid-effect

Covid-19 lockdowns brought education apps, especially classroom apps, into the mainstream. The clear winner is Google Classroom, with 65% now using this app in Spain, 50% in the U.S. and 31% in the U.K. where Show My Homework is trying to hold onto its position as top app.

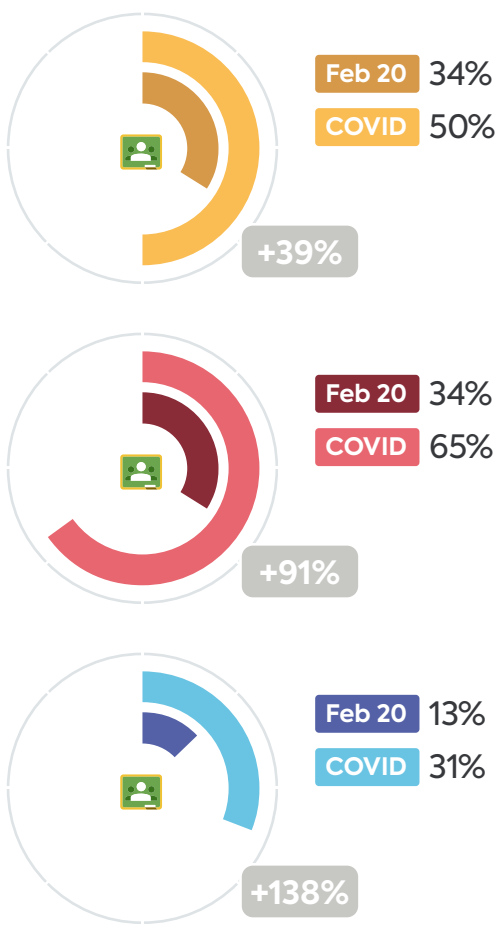
But classroom apps weren't the only apps to benefit from the Covid-19 lockdowns. Supplementary education apps also spiked in popularity across all markets, especially Kahoot which became the 5th most popular education app in the U.S. and the U.K. and jumped 104 positions in Spain.

Average minutes kids spend on all education apps per day during Covid-19

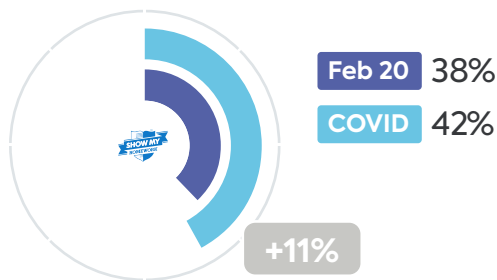


% of children now using classroom apps

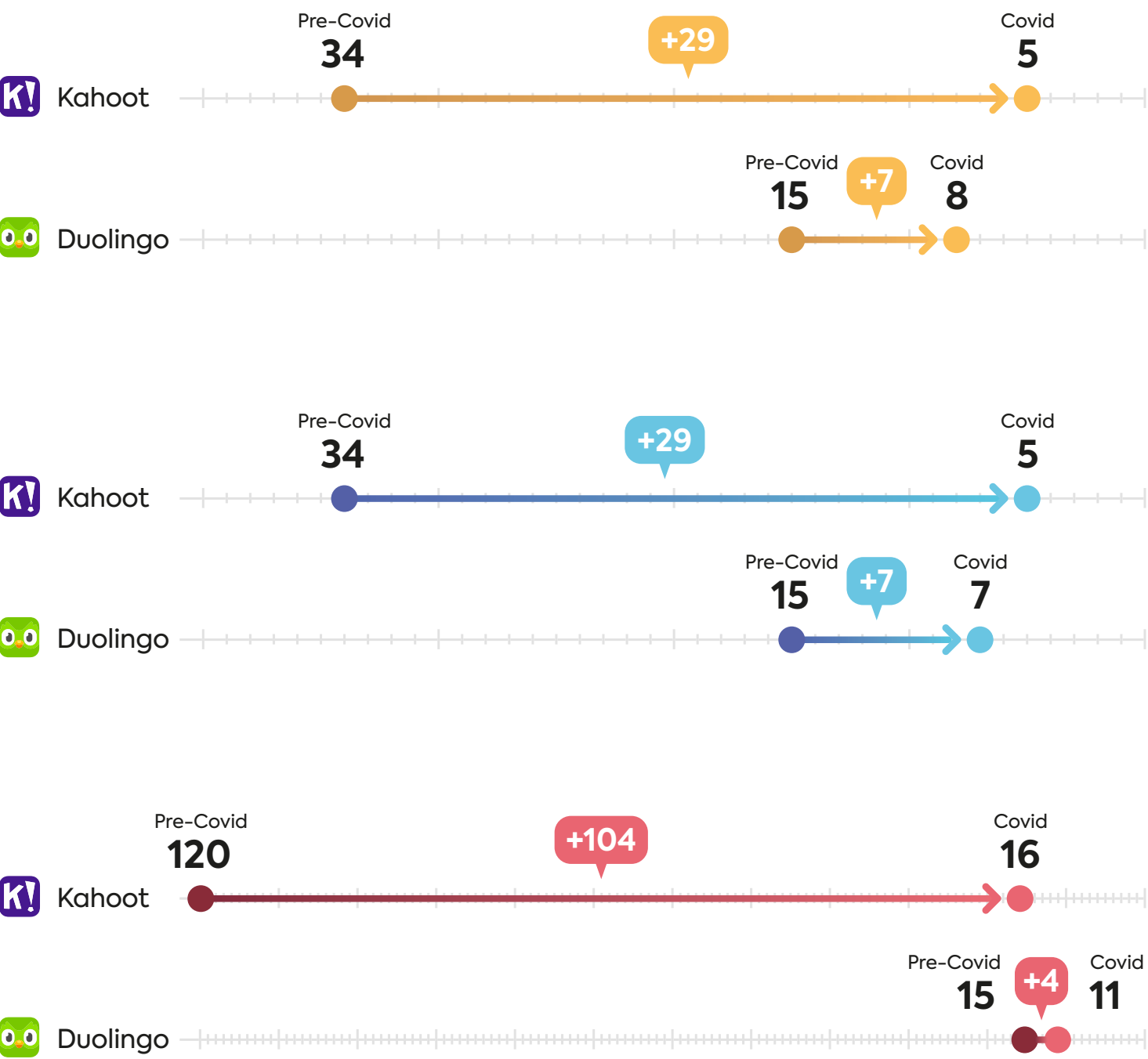
Google Classroom



Show My Homework



Improvement in rank of popular supplementary education apps (February 2020 vs April 2020)



What's Next


What to expect

The coronavirus pandemic has forced a more rapid adoption of classroom education platforms, as more schools need ways to stay connected to parents. It is difficult to imagine that this trend will reverse. Over the next year, expect these platforms to become increasingly refined, helpful and widespread. Google Classroom is the clear market leader around the world, a trend that is expected to hold. It will also likely bump Show My Homework out of top position in the U.K.

The impact of screen-time on children will continue to be a topic of scrutiny – particularly as children spend more time online during the Covid-19 lockdowns. In regard to the debate on banning smartphones in schools, we expect it to be put on pause in 2020. Schools

still teaching students at a distance will be busy tackling other issues like the rising trend in children using online services to cheat in their school work and exams – something which, as a parent, it is worth keeping an eye on.

We expect the use of supplemental education apps related to language learning and STEM subjects to continue to grow, as well as quiz apps. We are excited to see the positive tech solutions which may be developed or borrowed from other sectors like gaming to genuinely support children with their online learning habits.



We are excited to see the positive tech solutions which may be in development to genuinely support children with their online learning habits.

Expert advice for parents

What to do about it

We understand the backlash concerning technology in schools. Yet, we believe education apps can be useful learning tools and that banning technology can lead to poor digital literacy. Qustodio advocates balance; the key to being a successful and healthy adult in the modern world.

We also recommend parents **make an appointment with their child's school to find out exactly what programs they use and what they do with data**. Laws, such as the Children's Online Privacy Protection Act (COPPA), place rules on companies collecting data about kids under 13, [but there are loopholes](#). With Covid lockdowns, as children spend the entire school day online and connected to new platforms, it is more important than ever for parents to know what is happening to the hours and hours of their child's behavioral and educational data.

Dr. Nicole Beurkens, Holistic Child Psychologist, emphasizes that "though a good educational app can open doors to new skills and interests, research clearly shows that a quality teacher is key to learning. [Lack of face-to-face instruction has negative impacts](#)

on overall learning and development. Thus, I recommend parents and educators work together with children when learning using apps. During coronavirus lockdowns this is more challenging than ever, but I do not recommend that parents rely solely on independent online courses for their child to get instruction or remedial help, unless no other option is available. Apps that make learning fun and engaging, and help children learn more about topics of interest, are great ways to further their academic development."

Marc Masip, Psychologist and Addiction Expert, works year-round with schools talking with students to help them deal with the problems associated with screen addiction. A strong proponent of keeping smartphones out of schools, he says, "There is no room for Smartphones in schools. They create distractions in the classroom and distractions are the antithesis to learning. On the playground they are addictive and anxiety inducing. If you want to stay in touch with your child a 'dumb' mobile phone will do, or only **allow the smartphone to have call functionality during school hours**. This hot debate has become

irrelevant as children have to learn from home during the Covid-19 crisis, but I have no doubt that it will be back as children return to the classroom. And **with screen time at alarming levels, it is important we carve out times of day that are truly screen free**. School time should be one of them."

“With screen time at alarming levels, it is important we carve out times of day that are truly screen free. School time should be one of them.”

Marc Masip
Psychologist and Addiction Expert



Conclusions

When we first started working on this report at the end of 2019, we were already concerned about the growing rates of time children were spending online. Then **along came the spikes in screen-time due to Covid-19. The increases were unbelievable, first 50%, then 100%, then 200% increases in average daily time online across regions with strict lockdowns. While those rates have calmed down, they will never go back to 2019 levels. We have reached a new normal.**

We now live in a world with an estimated 25 billion connected devices worldwide. Many of those are in the hands of children. Today, on average a child in the U.S. watches nearly 100 minutes of YouTube per day, a child in the U.K. spends nearly 70 minutes on TikTok per day, a child in Spain plays Roblox over 90 minutes a day, and 100% more children everywhere are spending time learning online.

All of those devices and all of that extra time online means more exposure potentially in-

appropriate, dangerous or addictive content and to predators. It also means doing less of other things that are essential to children's mental and physical health such as exercise, sleep and real human contact.

In short, children are at risk and that risk is growing. They are digital natives, not digital experts. And, it is our job as corporations, governments, schools and parents to do everything possible to protect and guide them. Corporations need to fiercely protect user data and monitor and remove inappropriate content. Schools also need to do more to protect data **and make sure screen-time doesn't take over the classroom.** Governments need to improve existing laws to do even more to protect children online.

And, parents need to double-up their efforts to understand the technology their children are using and take online threats seriously. It's time for them to talk to their children about the benefits but also the costs of time online,

the dangers on the internet and why the use of parental controls will help to protect them and create consistent, healthy screen-time habits. It's time to shut down and get outside, if you can. There is no excuse. In the words of Qustodio co-founder and CEO, Eduardo Cruz, **"If we have digital kids, we need to be digital parents."**

The world is not going to return to the way things were, because screen-time rates were already increasing, Covid-19 just accelerated the process. But there is hope for greater safety and balance. And, the information and advice in this report can help families achieve it in 2020, the most connected year ever, and beyond.

“If we have digital kids, we need to be digital parents.”

Eduardo Cruz
Qustodio co-founder and CEO