CONVIVA

Q2
2021

EUROPE

Conviva's State of Streaming

This regional report includes streaming traffic measured from the following countries and territories in Q2 2021:

Northern Europe	Southern Europe	Eastern Europe	Western Europe
Aland Islands	Albania	Belarus	Austria
Denmark	Andorra	Bulgaria	Belgium
Estonia	Bosnia and	Czech Republic	France
Faroe Islands	Herzegovina	Hungary	Germany
Finland	Croatia	Moldova	Liechtenstein
Guernsey	Gibraltar	Poland	Luxembourg
Iceland	Greece	Romania	Monaco
Ireland	Vatican City State	Russian Federation	Netherlands
Isle of Man	Italy	Slovak Republic	Switzerland
Jersey	Macedonia	Ukraine	
Latvia	Malta		
Lithuania	Montenegro		
Norway	Portugal		
Svalbard and Jan	San Marino		
Mayen	Slovenia		
Sweden	Spain		
UK	Serbia		

Introduction

When streaming skyrocketed last year, many surmised that the global upswing was due to the COVID-19 pandemic temporarily altering viewing and social media behaviors. While viewing habits certainly changed, those temporary spikes have turned out to be not so temporary. The pandemic has spurred a tipping point in streaming that shows no signs of reversal. In fact, streaming continued to climb over the pandemic heights of Q2 2020, up 19% in Europe and 13% globally.

In addition to the increase in streaming viewing, investment in social media, particularly video content, rose as platforms commanded huge, highly engaged audiences. The advertising implications of all this growth are starting to take shape, too; more eyes mean more revenue opportunities and as the quality and measurement for streaming ads improve, even more investment is likely to follow.

All of this is to say, streaming media isn't going away, it's not slowing down, it's only growing—and its dominance is forcing digital businesses everywhere to reevaluate how they create content, market to consumers, advertise, and invest in providing great viewer experiences.

Conviva's data is primarily collected using proprietary sensor technology with a global footprint of more than 500 million unique viewers watching 180 billion streams per year across 3.3 billion applications streaming on devices. Embedded directly within streaming video applications, the sensor measures across content and ads to analyze nearly two trillion real-time transactions per day for its customers. In this report, the year-over-year data from Q2 2021 as compared to Q2 2020 was normalized based on Conviva's customer base.

Q2 2021 highlights:

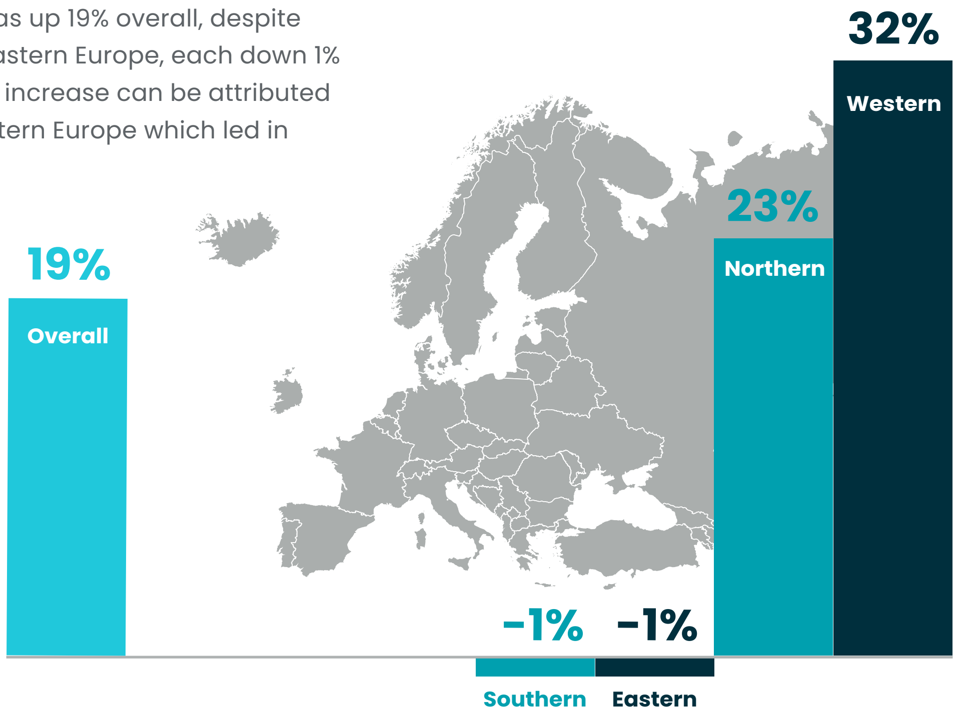
- Streaming rose in Europe by 19% in Q2 2021 versus the same time last year, led by western Europe with the largest growth of 32% and northern Europe with 23%.
- While other big screens enjoyed increases in Europe, with smart TVs up 29% and connected TV devices up 19%, gaming consoles decreased 11% in the region.
- While 16% of ads are missed opportunities as they went unfilled or failed to play as expected, this number has decreased significantly, down 37% from the previous quarter.
- The streaming show with the most cross-platform engagements on social media in Q2 2021, was the long-running *Grey's Anatomy* which edged out Netflix's Spanish-language drama *Elite* in the number two spot.
- On YouTube, mobile phones accounted for 63% of views but just 52% of watch time, as consumers tallied nearly twice as many minutes per view when watching YouTube on a console or connected TV than they did on mobile or tablet in Q2 2021.
- European football leagues showed tremendous quarter-over-quarter growth up 68% in engagements despite only increasing videos by 2% and posts by 20%.

Viewing time is up big in most of Europe

Streaming viewing time in Europe was up 19% overall, despite slight decreases for southern and eastern Europe, each down 1% year over year. The broader region's increase can be attributed to northern Europe, up 23%, and western Europe which led in growth, up 32%.

Regional growth in viewing time

Q2 2021 vs Q2 2020



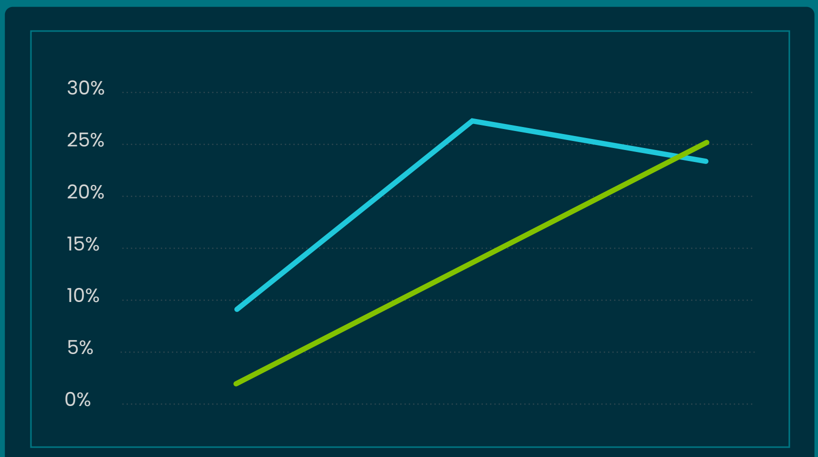
Europe's contrasting Q2 monthly path

Diving further into the comparison between two quarters marked by the beginning and (what the world hoped was) the ending of the COVID-19 pandemic, April 2021 had the most modest growth of the quarter across all regions given the massive stay-at-home induced spike in April 2020.

Europe, which led the world in year-over-year growth in viewing time in April of 2020, still tallied an increase year over year, albeit of just 9% in the first month of the quarter. May fared a little better at 14% global growth with Europe boosting their viewing time by 27%, the highest month of the quarter for the region. Europe closed out the quarter with impressive growth of 24% in June, in line with the 25% global year-over-year growth in June.

Growth in viewing time

Q2 2021 vs Q2 2020



	APR	MAY	JUN
Europe	9%	27%	24%
Global	2%	14%	25%

Less spinning wheel of death, higher picture quality

Quality was mixed in Europe in 2021 as viewers ventured out of their homes and increased mobile streaming. Minutes per play was down 1% in Europe overall as three of the four subregions saw a decrease likely driven by less in-home, long-form viewing. The only exception was western Europe with a modest 1% increase in minutes per play. In Q2 of 2021, time spent watching with each session was almost uniform across Europe with northern Europe's 24.4 minutes per play just edging out southern and western Europe, and eastern Europe seeing the fewest minutes per play at 19.8.

Quality by Region

Real Time | Europe Region | Filters | Metrics | Q2 2021

	Minutes / Play Q2 2021	Minutes / Play YoY	Video Start Failures Q2 2021	Video Start Failures YoY	Video Start Time Q2 2021	Video Start Time YoY	Buffering Q2 2021	Buffering YoY	Bitrate Q2 2021	Bitrate YoY
Eastern	19.8	-12%	1.04%	-21%	4.04	4%	0.37%	-39%	3.34	18%
Northern	24.4	-1%	1.23%	26%	3.84	-2%	0.19%	-35%	7.49	43%
Southern	22.8	-1%	1.69%	43%	4.30	4%	0.26%	-35%	6.98	51%
Western	22.0	1%	1.39%	-6%	3.82	-6%	0.23%	-33%	7.69	39%
Overall	23.0	-1%	1.35%	12%	3.92	-2%	0.22%	-36%	7.29	43%

Improvements in green, declines in pink | Best per category in green, worst in pink

Video start failures were down 12% in Europe overall, with some notable stumbles in northern Europe and southern Europe which increased 26% and 43% year over year in failures, respectively. With the increase, southern Europe earned the unfortunate title of worst video start failure rate in Europe at 1.69%. Conversely, eastern Europe enjoyed a 21% decrease in video start failures and had the least failures of the quarter at 1.04%.

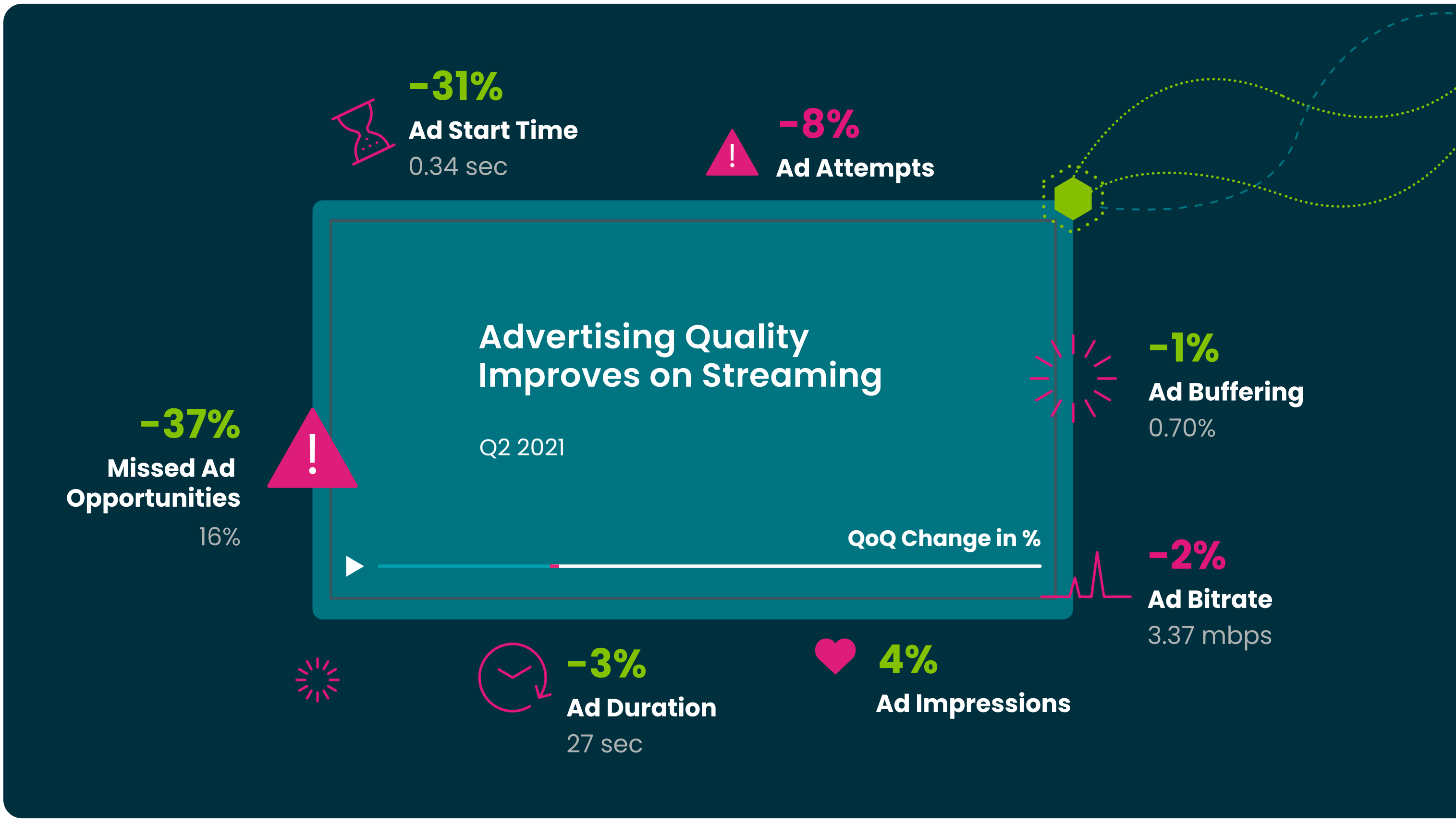
Eastern Europe and southern Europe each tallied 4% longer video start times on average, while northern Europe and western Europe saw modest improvements. Video start time in Europe overall was 3.92 seconds as western Europe had viewers waiting just 3.82 seconds on average while in southern Europe viewers waited an average of 4.30 seconds.

Buffering and bitrate are the real standouts in quality with improvements across every region. Europe decreased buffering around 35% in each subregion year over year, with Europe down 36% overall. Eastern Europe had the highest buffering at .37%, up from the overall rate of .22% and up considerably from the lowest regional buffering of northern Europe at .19%. Eastern Europe also had the worst bitrate at 3.34 despite improving 18% in the category year over year, which is strikingly low next to western Europe's 7.69 and Europe's overall 7.29 bitrate. Picture quality did improve across the board, with bitrate up 43% in Europe overall led by southern Europe with a 51% increase, northern Europe at 43%, and western Europe at 39%.

Big progress in streaming ad quality

While 16% of ads were missed opportunities as they went unfilled or failed to play as expected, this number has decreased significantly, down 37% from the previous quarter. The result is that even while ad attempts dropped 8% from Q1 to Q2 2021, more attempts were successful resulting in a 4% increase in ad impressions quarter over quarter.

For ads that were delivered, ad start times improved significantly as viewers spent 31% less time waiting for ads to play. Ad buffering also saw a minimal improvement, down 1% from the previous quarter. Picture quality for ads was the lone ad metric to falter a bit with a 2% decrease in quality in Q2 2021 as compared to the previous quarter. Meanwhile, to the delight of viewers, ad duration decreased 3% to 27 seconds.

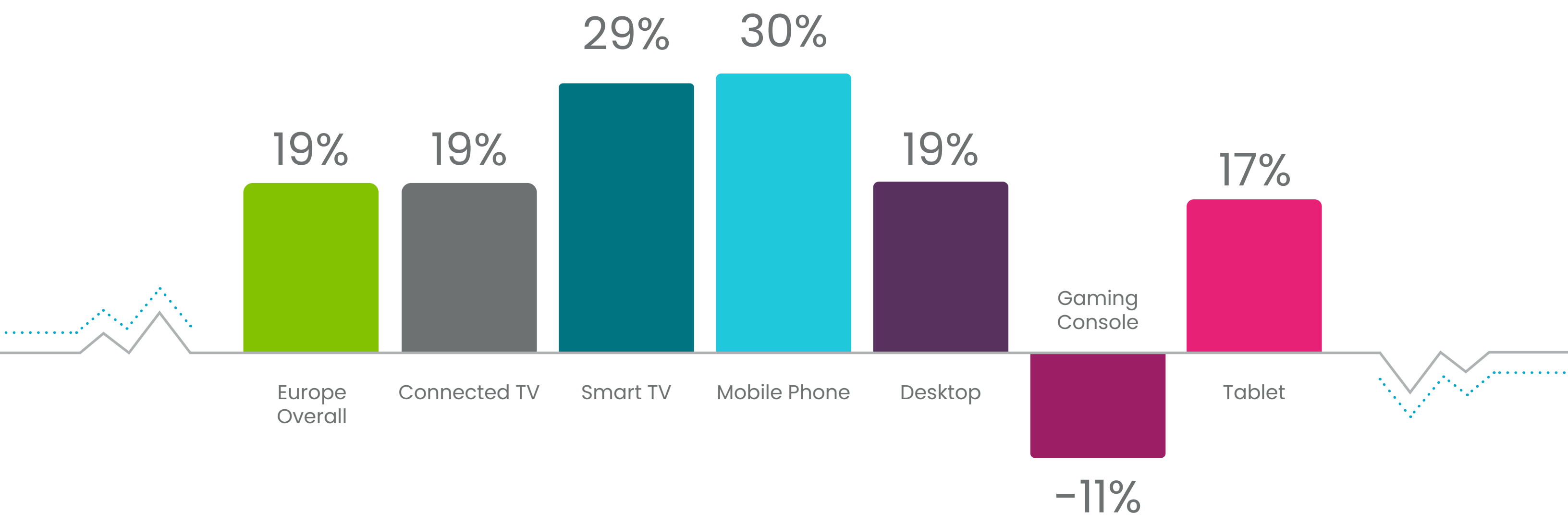


Rare decrease in device growth

As big screens gain in popularity, it seems to intrinsically set up a big screen versus small screen clash. For years, all devices have recorded global increases in viewing time, with bigger screens boasting bigger gains even as they dominated in share. In a rare shift, Q2 2021 marks the first quarter in recent memory that any device, and a TV device at that, has recorded a decrease. This drop among gaming consoles was seen not only globally, but in Europe as well. While other TV devices enjoyed increases in viewing time in Europe, with smart TVs up 29% and connected TV devices up 19%, gaming consoles decreased 11%. Among smaller screens, mobile grew 30% to lead in growth among all devices while desktop increased 19%, and tablets 17% year over year in viewing time.

Growth in Viewing Time by Device

Q2 2021 vs Q2 2020



Minimal change in viewing time by device

Europe saw very little change in share of viewing time by device comparing Q2 2021 to the previous Q2. Connected TV devices still dominated the region as the device of choice as they maintained 32% share of all viewing time in Europe. Desktop and tablets also saw no change from Q2 2020, still at 14% and 11% share, respectively. The changes came for mobile phones which were up 1% and smart TVs, up 2%, while gaming consoles dropped in share of viewing time, down 3%.

How Europe’s regions streamed on devices

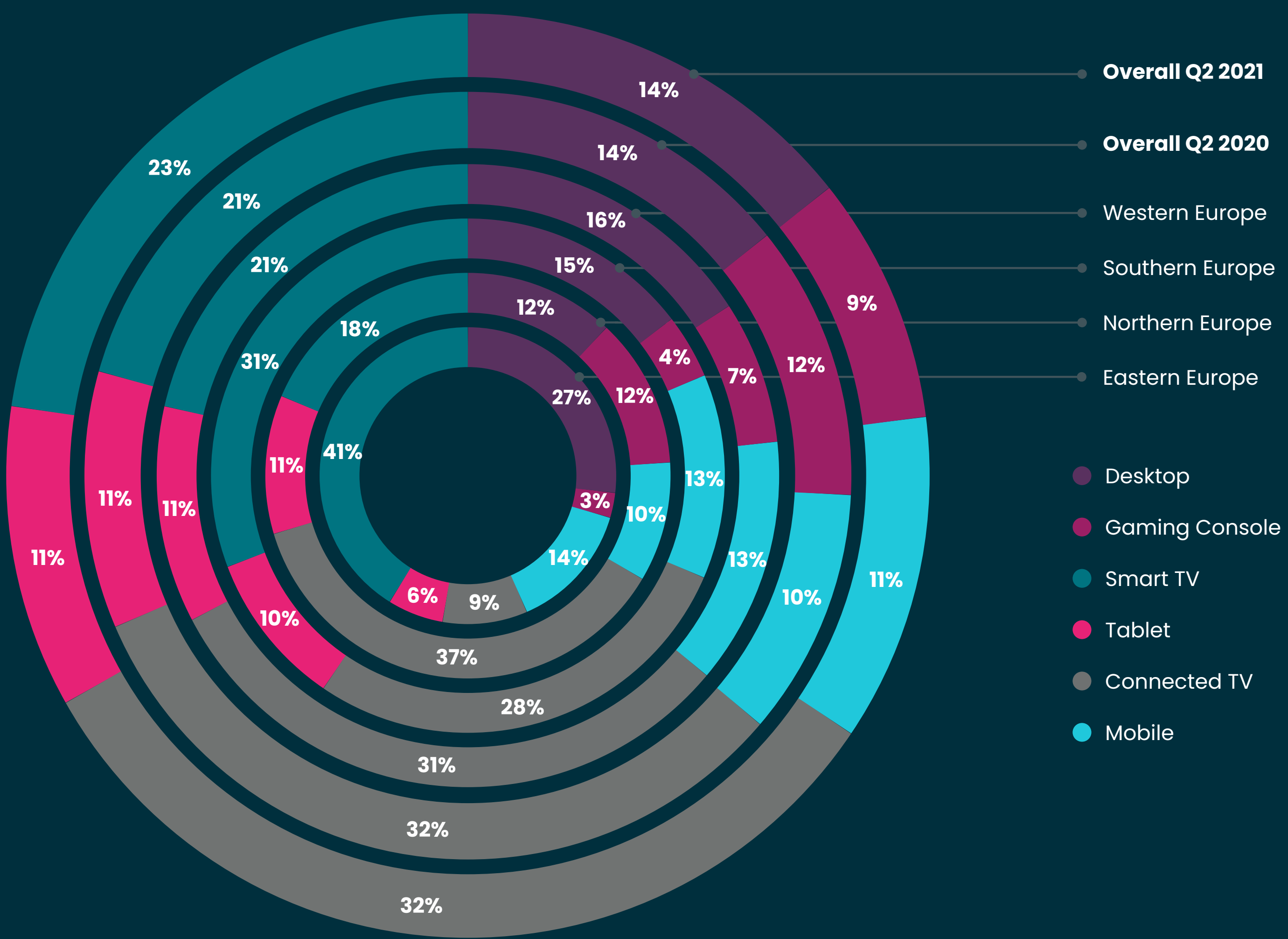
Throughout Europe, big screens commanded the most share of viewing time in Q2. Connected TV devices led among devices with 31% share in western Europe and 37% in northern Europe and came in a close second with 28% share in southern Europe. In eastern Europe, connected TV devices captured the least share at just 9% while smart TVs dominated with 41% share. In southern Europe, smart TVs beat out connected TV devices for the most share with 31%. Smart TVs also came in second in the other two regions. Gaming consoles captured the most share in northern Europe with 12%, but otherwise represented 7% or less share in the other regions.

Among smaller screens, eastern Europe was a bit of an outliner as their second-place device was not a big screen, but desktops at 27%. Desktops also captured 16% of viewing in western Europe, 15% in southern Europe, and 12% in northern Europe.

Among handheld devices, tablets accounted for around 10% of viewing time in western, northern, and southern Europe, and just 6% in eastern Europe. Mobile phones fared only slightly better with 10% share in each of the regions.

Share of Viewing Time by Region

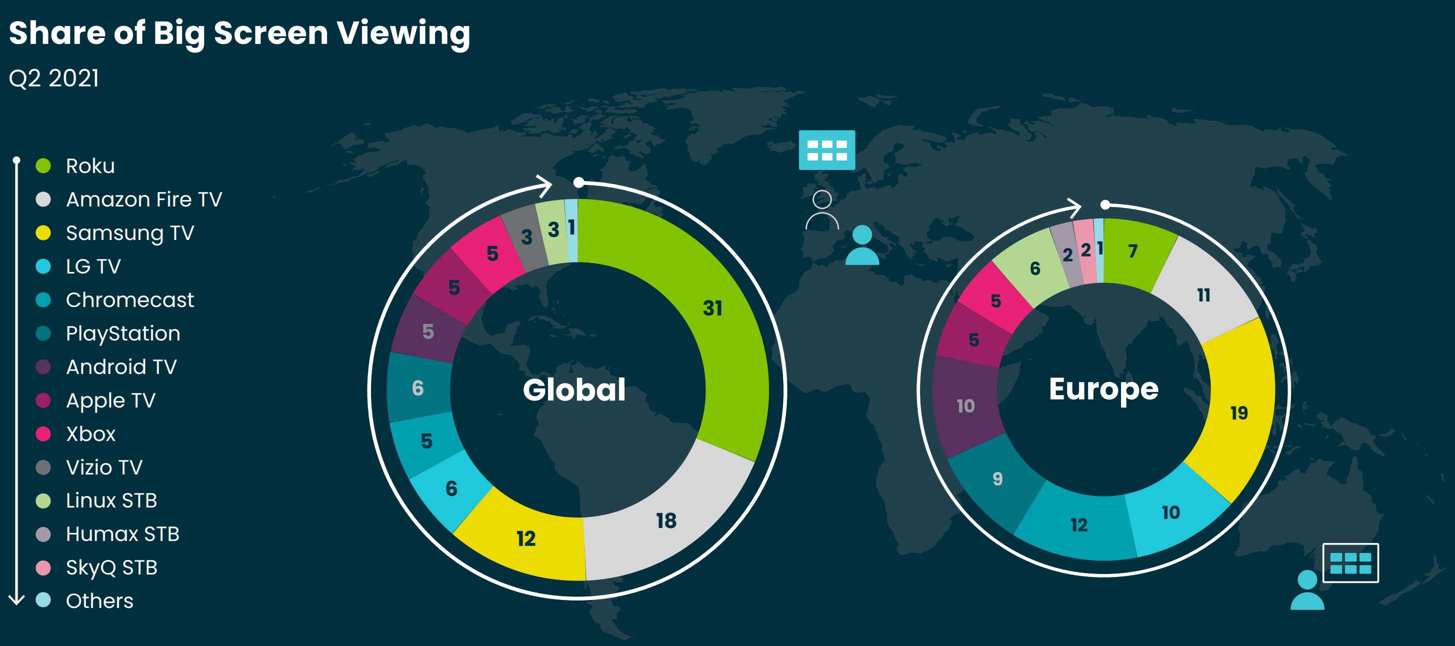
Q2 2021 vs Q2 2020



Which big screens did Europeans prefer?

As noted, big screens triumphed in all European regions, but which brands really dominated? Samsung TV took the crown with 19% and the closest competitors were Chromecast at 12%, Amazon Fire TV at 11%, and LG TV and Android TV tied for third with 10%. Still making honorable mentions were Roku at 7%, LinuxSTB with 6%, and in another third-place tie, Xbox and Apple TV with 5%.

This looked a little different than the overall global share where Roku lead the way with 31% followed by Amazon TV at 18% and Samsung TV at 12%. The rest of the share was split among nine other devices, all just one to five percentages apart, as device fragmentation continues to increase the complexity of the ecosystem.



Device quality continues to surprise

Device quality never remains constant, that's the nature of streaming.

When comparing year over year, buffering and bitrate saw extremely positive improvements. All devices saw double-digit decreases in buffering with desktop leading the way, down 44%, and all devices seeing at least 32% improvement year over year. All devices also saw double-digit rise in picture quality with smart TVs improving 55%, followed closely by gaming consoles at 49% and connected TV devices at 46%. In Q2 alone, buffering and picture quality varied significantly between the highest and lowest with gaming consoles at .11% versus mobile phones at .44% for buffering rate and smart TVs with 9.77 versus desktop at 4.02 bitrate.

Quality by Device

Device	Min/Play Q2 2021	Min/Play YoY	Video Start Failures Q2 2021	Video Start Failures YoY	Video Start Time Q2 2021	Video Start Time YoY	Buffering Q2 2021	Buffering YoY	Bitrate Q2 2021	Bitrate YoY
Overall	23.0	-1%	1.35%	12%	3.92	-2%	0.22%	-36%	7.29	43%
Connected TV Devices	30.1	1%	1.28%	52%	4.12	3%	0.15%	-32%	8.00	46%
Smart TV	25.7	-4%	0.99%	41%	4.73	-2%	0.17%	-38%	9.77	55%
Mobile Phone	11.4	-3%	1.66%	15%	3.15	-3%	0.44%	-33%	4.81	11%
Desktop	26.5	3%	1.19%	-36%	4.48	-2%	0.36%	-44%	4.02	19%
Gaming Console	30.9	5%	1.32%	19%	3.35	-26%	0.11%	-42%	8.47	49%
Tablet	18.7	5%	1.72%	14%	3.39	3%	0.25%	-33%	6.02	42%

Improvements in green, declines in pink | Best per category in **green**, worst in **pink**

In Q2 of 2021, gaming consoles just edged out connected TV devices for minutes per play at 30.9, as gaming consoles, connected TV devices, desktop, and tablets all had year-over-year increases in the metric. Despite a number of devices seeing longer viewing times, Europe was down by 1% in minutes per play overall as mobile phones, with fewest minutes per play at 11.4 and down 3%, and smart TVs, down 4%, dragged down the average.

Video start failure had the most, well, failures of all the quality metrics. Almost every device worsened, up double-digits, with connected TV devices up a whopping 52% and smart TVs not doing much better at 41%. Despite the decline over the previous year, smart TVs still had the lowest video start failures at .99%, while tablets had the highest at 1.72%. Among devices, only desktop improved in failures.

Finally, video start time varied too. Smart TVs had the highest start time at 4.73 and mobile phones had the lowest start time of 3.15. Viewers had to wait longer for their videos to start on connected TVs and tablets, each up 3%, but gaming consoles saw a huge decrease in start time of 26%. Mobile phones, desktops, and smart TVs all had modest decreases, bringing Europe overall down by 2%.

 |

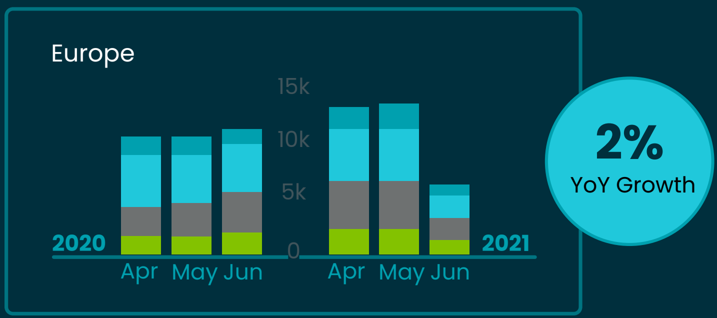
Europe's football leagues celebrate resurgence on social media

For many reasons, Q2 of 2020 was perhaps the most challenging quarter in sports history, and this was highlighted by the performance of sport teams on social media. As leagues were shut down, postponed, and quarantined in 2020, social media tanked. Q2 2021 was the first quarter since the beginning of 2020 in which all sports leagues showed an increase year over year across posts, videos, and engagements.

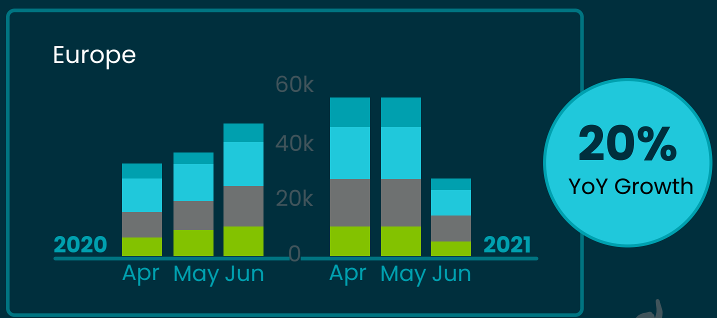
Even with a slow June as the UEFA Euro 2020 tournament took precedence over league play, European leagues, including Bundesliga, La Liga, Premier League, and Serie A showed tremendous quarter-over-quarter growth up 68% in engagements despite only increasing videos by 2% and posts by 20%.

- Serie A
- Premier League
- LaLiga
- Bundesliga

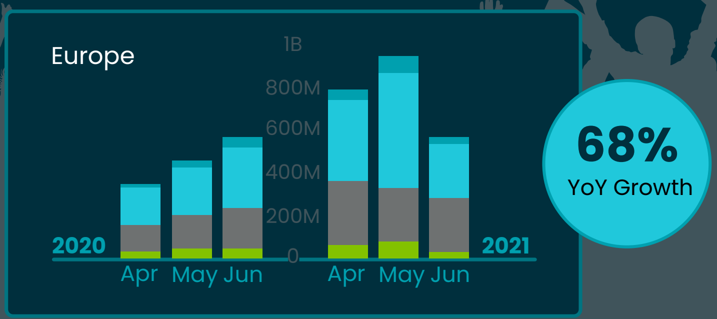
Sports Total Videos



Sports Total Posts



Sports Total Engagements



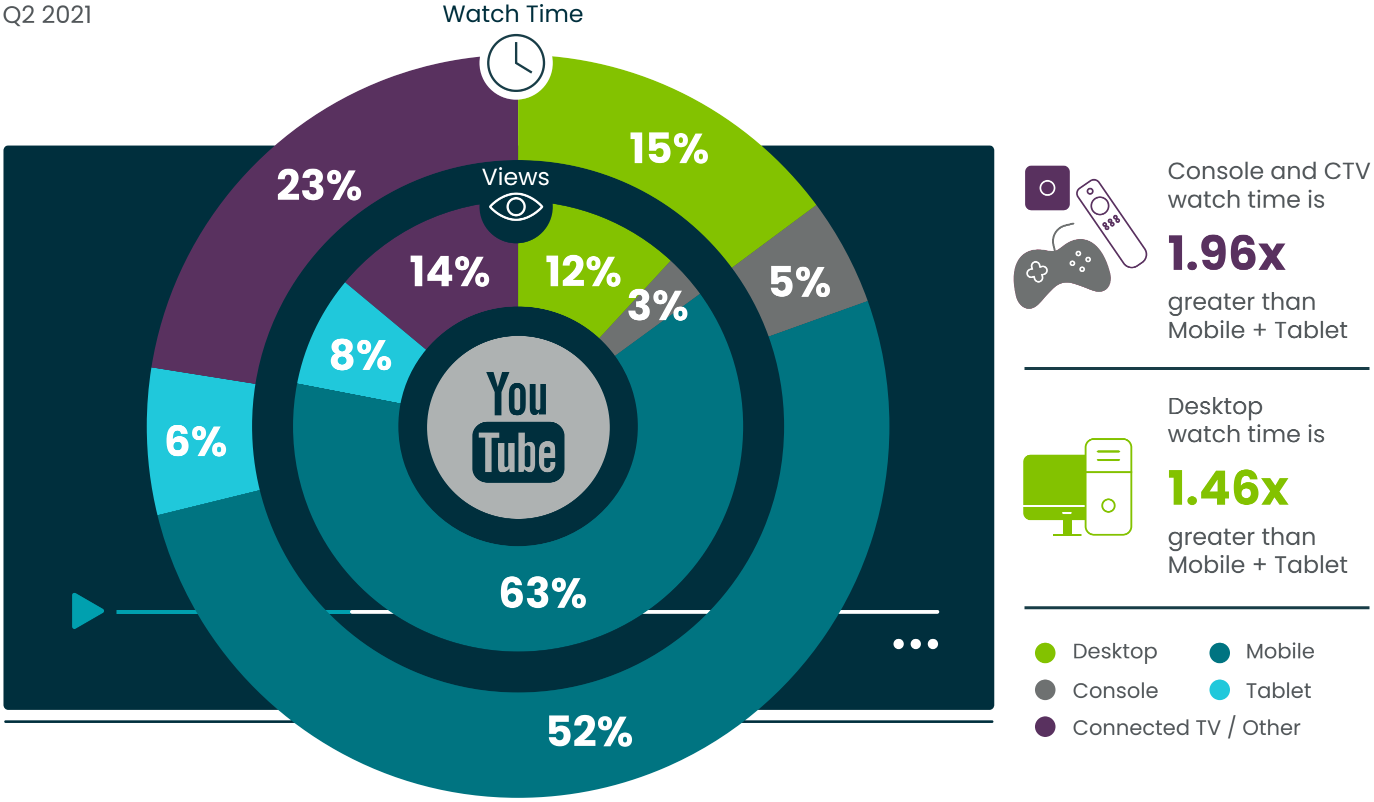
YouTube challenges social expectations

Of particular consequence for streaming services on social, YouTube continues to challenge the concept of what video on a social media platform looks like. The majority of YouTube views, 63%, and watch time, 52%, came via mobile phones in Q2 2021. YouTube records a view as any 30-second watch time on a video. For smaller screens, scrolling and surfing is a common YouTube practice, especially with the recent introduction of YouTube Shorts, YouTube's short-form content feed.

But when watching YouTube on a console or connected TV, consumers tallied nearly twice as many minutes per view than they did on mobile or tablet. This disparity is also seen in the significantly longer share of watch time for connected TVs at 23% when compared to the device's share of total views at 14% in Q2 2021. These trends indicate that YouTube viewers are selecting significantly more long-form content to play on the big screen, and brands should take note.

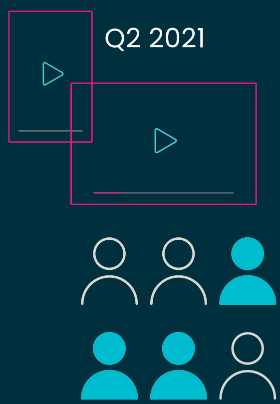
YouTube Share of Viewing

Q2 2021



Legacy matters for top streaming shows

Q2 2021



	Show	Streaming Service Promoted	Total Cross-platform Engagements
1	Grey's Anatomy	Hulu	68.8M
2	Elite	Netflix	47.5M
3	Friends	HBO Max	32.8M
4	Loki	Disney+	15.2M
5	Saturday Night Live	Peacock	14.2M
6	Rick and Morty	HBO Max / Adult Swim	12.5M
7	Peaky Blinders	Netflix	11.3M
8	SpongeBob SquarePants	Paramount+	9.85M
9	The Flash	The CW	9.77M
10	Money Heist (La casa de papel)	Netflix	8.57M
11	Shadow and Bone	Netflix	8.53M
12	Game of Thrones	HBO Max	7.15M
13	Riverdale	The CW	6.64M
14	The Office	Peacock	6.52M
15	Keeping Up with the Kardashian's on E!	Peacock	6.23M
16	Stranger Things	Netflix	5.77M
17	Falcon and the Winter Soldier	Disney+	5.25M
18	Legacies	The CW	5.10M
19	The Handmaid's Tale	Prime Video	4.11M
20	Shameless	Showtime	4.09M
21	Julie and the Phantoms	Netflix	3.77M
22	The Grand Tour	Prime Video	3.73M
23	Schitt's Creek	CBC Gem	3.55M
24	All American	The CW	3.23M
25	Yellowstone	Paramount +	3.21M

Social media is as critical for streaming services promoting their product as it is for brands. When that product is marquee content, social media accounts for those shows can also be used to promote the streaming service itself.

A ranking of top streaming shows (those that promote their availability on a streaming platform in their social bio), illustrates the power of legacy exclusives like *Friends*, *Game of Thrones*, and *The Office* in highlighting a streaming service and maintaining audience engagement year-round on social media, even without new episodes.

Vying for the top spot as most engaged streaming show in Q2 2021 with the most cross-platform engagements on social media, Netflix's Spanish-language drama *Elite* was edged out by the long-running *Grey's Anatomy* which promotes its streaming availability on Hulu. Among new originals, *Loki* claimed the top spot for Disney+ at number four on the list overall.

The streaming service most successfully driving engagements on social media for their shows was Netflix with six shows on the list, followed by The CW with four of the top 25 streaming shows in Q2 2021.

Conclusion

As much of the world began to open after being hunkered down for over a year, employees returned to offices, and people ventured out, it could be assumed that streaming would suffer from all of the out-of-home activity, but that wasn't the case. In fact, streaming continued to grow in Europe and all over the world, streaming advertising improved, and companies invested in social media like never before. Streaming is here to stay.

Methodology

Data for Conviva's State of Streaming report was primarily collected from Conviva's proprietary sensor technology currently embedded in 3.3 billion streaming video applications, measuring in excess of 500 million unique viewers watching 180 billion streams per year with nearly 2 trillion real-time transactions per day across more than 180 countries. Year-over-year comparisons were normalized at the customer level for accurate representations of industry growth. The social media data consists of data from over 2000 accounts, over 5 million posts, 12.5 billion video views, and over 35 billion engagements across Facebook, Instagram, Twitter, and YouTube.

Q2 2021

Conviva's State of Streaming

Europe

About Conviva

Conviva is the intelligence cloud for streaming media. Powered by our patented Stream Sensor™ and Stream ID™, our real-time platform enables marketers, advertisers, technology teams, engineering, and customer care teams to build, engage and monetize their audiences. Conviva is dedicated to supporting brands like CCTV, DAZN, Disney+, Hulu, Paramount+, Peacock, Sky, Sling TV, TED and WarnerMedia as they unlock the incredible opportunity in streaming media. Today our platform processes nearly 2 trillion streaming data events daily, supporting more than 500 million unique viewers watching 180 billion streams per year across 3.3 billion applications streaming on devices. Conviva ensures digital businesses of all sizes can stream better—every stream, every screen, every second. To learn more, visit www.conviva.com.

Any Questions?

Visit www.conviva.com or contact Conviva at pr@conviva.com.