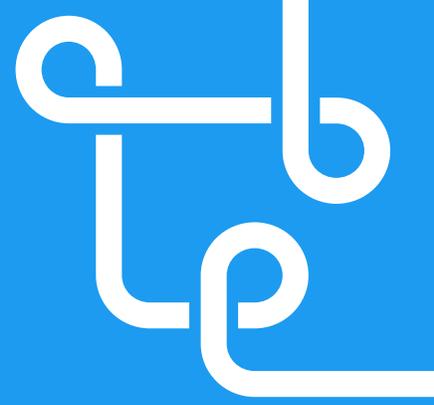


Global app usage trends in the COVID-19 era:

April 15, 2020 update



The COVID-19 global pandemic has left people around the world confused and searching for answers. At MoPub, doing everything we can to make sure our teams and partners are safe is our top priority. This new reality is impacting both personal and business situations, and on the business side, we recognize the needs of our partners and customers to have timely and actionable data.

This report is an update to our [initial observations](#) of the COVID-19 impact on MoPub's mediation platform. This edition pays particular attention to changes over time and the transition from Q1 to Q2. Our intent is to inform the decisions that marketers, demand partners, and app publishers need to make in the midst of an environment of uncertainty.

Key question as we enter Q2: “How bad is it?”

Since our [last report](#), the most common question addressed to MoPub was about the expected impact on ad rates for the mobile in-app channel going forward. There is always a CPM drop from the end of one quarter to the start of another; measuring this year’s quarter-over-quarter change versus 2019 is the most relevant comparison.

- **MoPub platform eCPM for April 1-7 was down 4.55% vs. Q1.**
- **In 2019, the same time period was down 1.5%.**

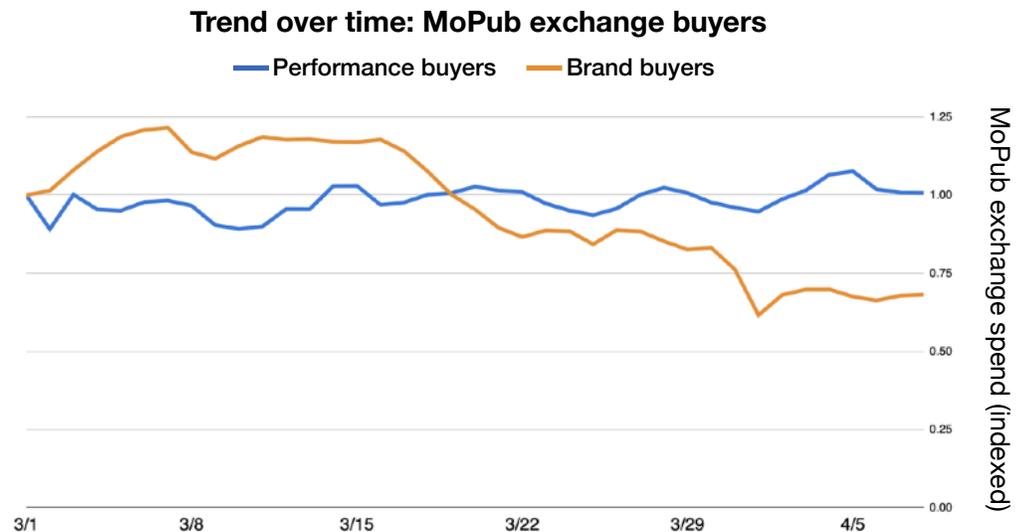
Takeaway:

There is a clear decline as a result of COVID-19, but to date that decline is not precipitous.

Impact by buyer type

The impact of COVID-19 on the general advertising market has been well documented, but one major theme we are seeing is that this is felt unevenly across the buying community. Buyers on our exchange that focus on user acquisition have actually increased in activity during this period, whereas buyers with a greater proportion of branding advertisers demonstrated significant declines in spend.

As shown on the right, exchange buyers categorized as primarily brand buyers declined throughout March and seem to have plateaued at a decreased level of consistent spend in April. Performance buyers are actually trending up, with incrementally higher peaks on each successive weekend.



Takeaway:

As of publication, roughly half of the world’s population is living under some form of “stay at home” mandate, including most of the so-called Tier 1 media markets. As such, we believe the trend lines shown here represent our “new normal” for the time being.

We believe the resilience demonstrated by the user acquisition buyers will continue as long as in-app usage remains at a high level. We expect brand buyers to remain flat until such time as the major media markets begin relaxing stay at home protocols.

Impact by buyer type, continued

This theme of uneven impact by buyer type is even more pronounced when ad networks are added to the analysis. As MoPub operates a network mediation service in parallel with our real-time bidding exchange, we are able to compare these effects across a wide range of demand sources.

Performance buyers



We believe it is a buyer's market for user acquisition: there's less competition from brand advertisers *and* increased inventory. Most of the performance buying platforms that focus on in-app inventory have increased spend in parallel with increased inventory.

Gaming advertisers are driving the majority of increased activity, but we see significant increases from video chat and food delivery apps in April.

Video ad networks



We see the same trend from our mediation service, especially from ad networks that focus on rewarded video or fullscreen ad formats. From March 15 through April 1, we saw a 27% increase in spend from ad networks that buy 90% or more on rewarded and fullscreen video inventory.

Similar to performance buyers, the primary driver of increased buying activity is the gaming vertical.

Brand buyers



Buying platforms that focus on brands and agencies show the most significant declines on our platform. The bidders and ad networks we categorize as primarily brand spend declined 36% from March 1 to April 9. We expect this will likely not rebound until lockdowns are relaxed.

As noted in the prior report, some advertising verticals have decelerated faster than others, which in turn impacts the buying platforms.

From a publisher's perspective, this shift in buyer composition further revealed the positive impact of maximizing real-time competition for each impression.

We compared traffic from publishers on our [Advanced Bidding](#) platform, which enables participating networks to bid in real time for an impression, to traffic from publishers using standard waterfalls. As shown at right, we see some material gains in bid depth and eCPM from the section that enabled Advanced Bidding from ad networks, in addition to real time bidding from MoPub Marketplace.

This indicates that maximizing the number of buying partners who buy traffic on a real-time basis is particularly beneficial during periods of volatility.

Takeaway

The evidence across our exchange and our network mediation service clearly shows that buyers focused on user acquisition are well positioned for the current market. For publishers, enabling as many of these buyers to bid in real time and maximizing competition for inventory looks to be a sound strategy.

	Advanced Bidding activated	Standard waterfall
eCPM	2.7%	-5.1%
Bid average	0.7%	-0.8%
Bid depth	1.6%	-2.1%

MoPub platform, March 15-28 vs 1-14, 2020

Impact to ad rates, by ad format, by market: EMEA and US

For this report, we wanted to provide more granular insights regarding ad rates in affected markets. Changes in inventory and pricing vary greatly depending on the combination of ad format and market. The following breakdown shows how inventory availability and eCPM changed across these vectors.

MoPub platform, April 1-7, 2020 vs March 1-7, 2020

Country	Rewarded Video		Fullscreen	
	Requests / Device	eCPM	Requests / Device	eCPM
DEU	11.3%	-15.5%	41.3%	-14.8%
ESP	38.5%	-8.9%	27.9%	-11.3%
FRA	17.9%	6.7%	30.8%	-11.2%
GBR	28.4%	-11.1%	42.0%	-13.8%
ITA	22.7%	3.4%	16.2%	-10.9%
USA	1.8%	-10.9%	13.4%	-14.1%

Country	300x250		Banner		Native	
	Requests / Device	eCPM	Requests / Device	eCPM	Requests / Device	eCPM
DEU	52.9%	-44.3%	16.8%	-5.4%	-2.3%	-16.6%
ESP	29.0%	-48.0%	29.2%	35.1%	-0.6%	40.1%
FRA	2.9%	-61.2%	18.3%	-4.8%	7.1%	-21.6%
GBR	34.3%	-56.5%	24.1%	-12.1%	13.3%	-10.3%
ITA	34.6%	26.3%	20.0%	14.6%	-4.7%	-14.8%
USA	19.4%	6.9%	15.1%	-28.2%	11.8%	-22.6%

Takeaway:

Two key factors affected inventory and ad rates across the MoPub platform during the reporting period:

- Mobile app usage increased as markets enacted stay at home policies, increasing supply.
- Many brand advertisers cut spend, decreasing demand.

This increase in supply combined with decreased demand resulted in reduced eCPMs for most inventory. However, we believe we are exiting the period of maximum volatility. As shown earlier, both buyer types appear to have settled into a new expected activity range. As shown in the following, the material growth in inventory occurs quickly when stay-at-home policies are enacted.

Impact to ad rates, by ad format, by market: APAC

We also looked at ad rates across markets in Asia-Pacific. Again, changes in inventory and pricing vary greatly depending on the combination of ad format and market. The following breakdown shows how inventory availability and eCPM changed across these vectors.

Note, many regions in Asia (particularly China) are deeper in the virus mitigation cycle, so we don't see the same increases for this timeframe as the markets that first started to see major impacts in March.

MoPub platform, April 1-7, 2020 vs March 1-7, 2020

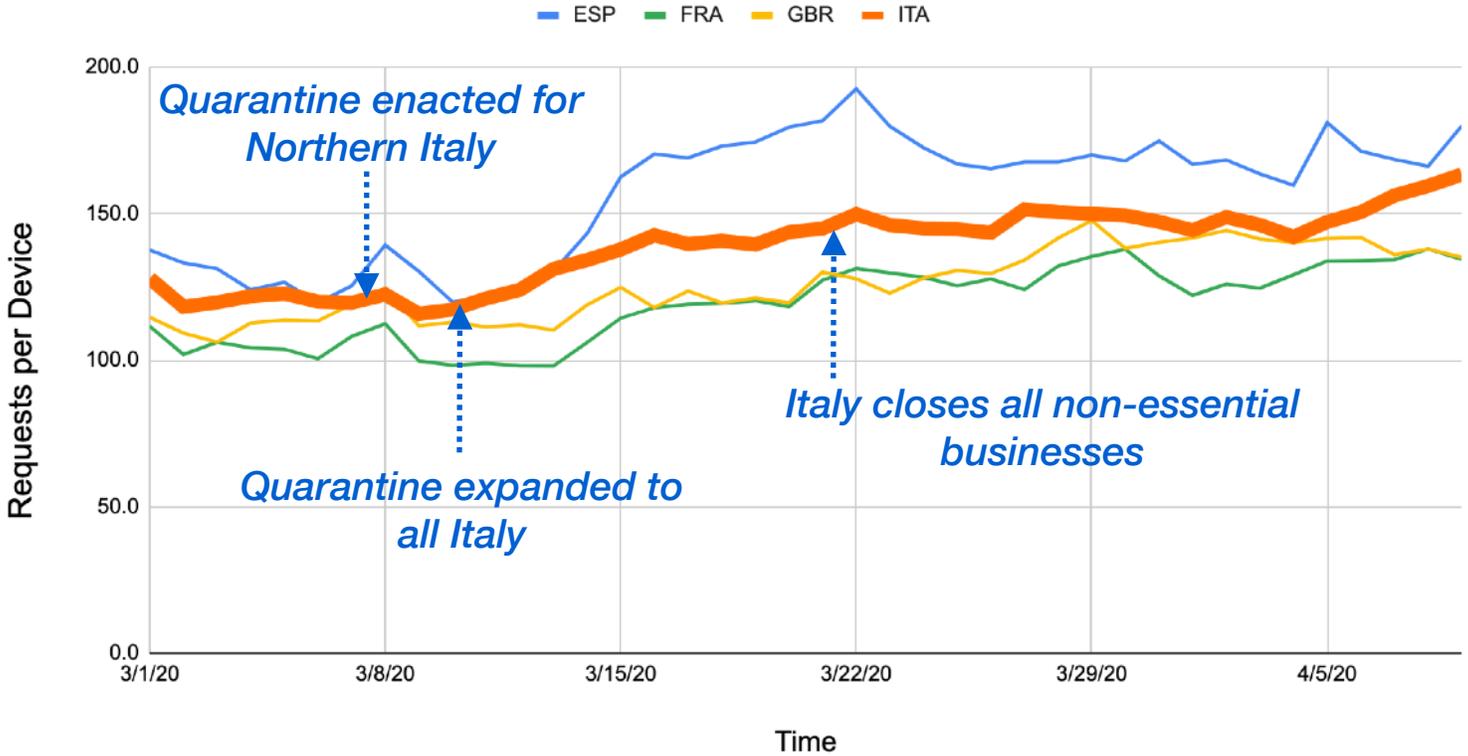
Country	Rewarded Video		Fullscreen	
	Requests / Device	eCPM	Requests / Device	eCPM
CHN	-16.45%	-20.04%	-9.04%	-27.61%
IDN	1.46%	-10.57%	-20.95%	-12.87%
IND	28.43%	-6.43%	5.61%	5.80%
JPN	7.32%	-7.21%	1.66%	-7.66%
KOR	-5.89%	-31.07%	-12.76%	-2.90%
SGP	7.85%	-7.41%	20.67%	-9.54%

Country	300x250		Banner		Native	
	Requests / Device	eCPM	Requests / Device	eCPM	Requests / Device	eCPM
CHN	-12.92%	133.95%	-1.58%	-16.33%	0.70%	-3.69%
IDN	1.67%	-32.26%	5.11%	-4.23%	-7.72%	6.12%
IND	3.60%	-39.15%	2.90%	-32.62%	-17.37%	-4.78%
JPN	66.36%	-12.99%	1.32%	-11.11%	-16.15%	-16.35%
KOR	-3.49%	25.00%	-10.56%	9.11%	-0.91%	-7.03%
SGP	8.45%	-6.83%	3.96%	-9.32%	0.76%	-11.80%

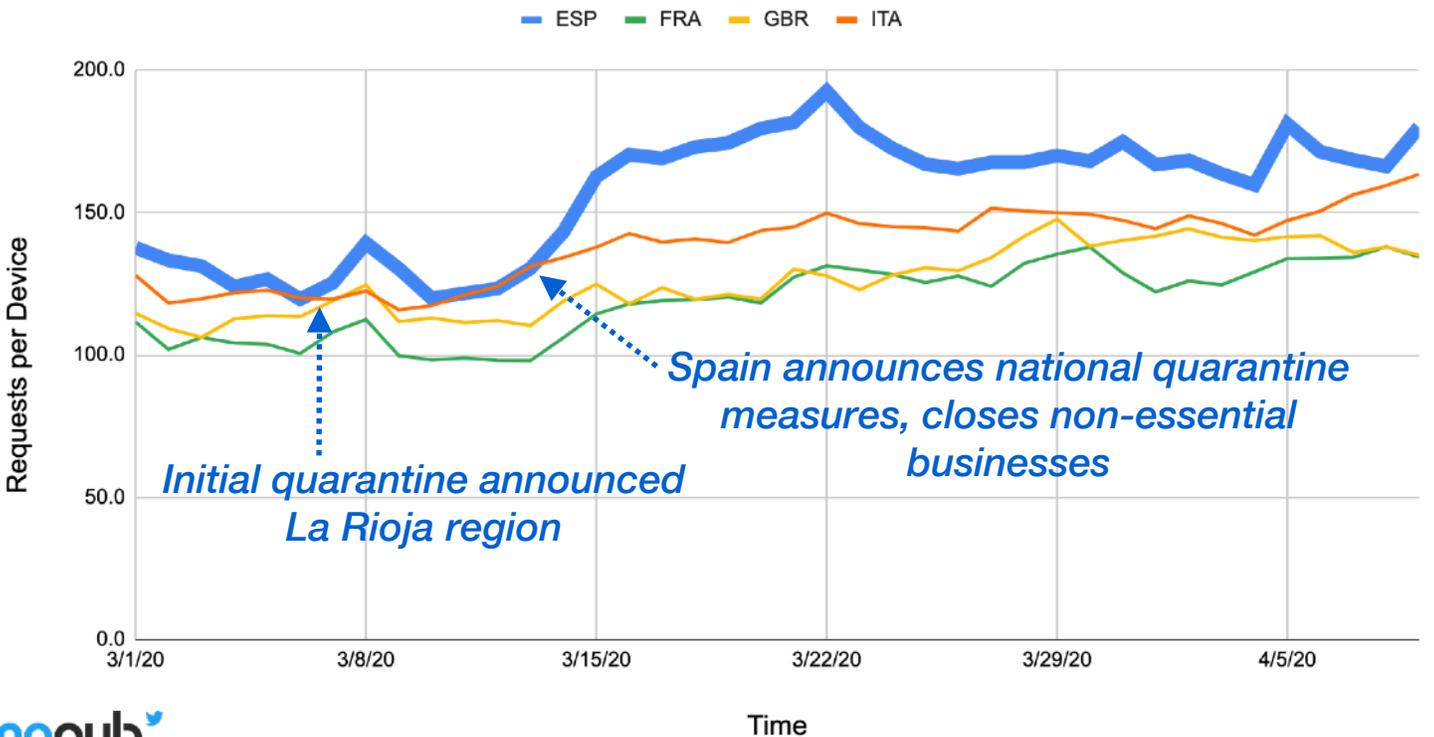
Inventory impact by market

In our [prior report](#) we detailed changes in app usage by market, showing how content categories increased or decreased in daily usage as markets enter lockdown. To add to that behavioral study, we have extended the timeline through April 7 and plotted COVID-19 measures against the observable inventory on our exchange. The cause and effect relationship between stay-at-home orders and increased in-app usage is remarkably consistent.

Observable App Usage Trends on MoPub's Exchange - Italy

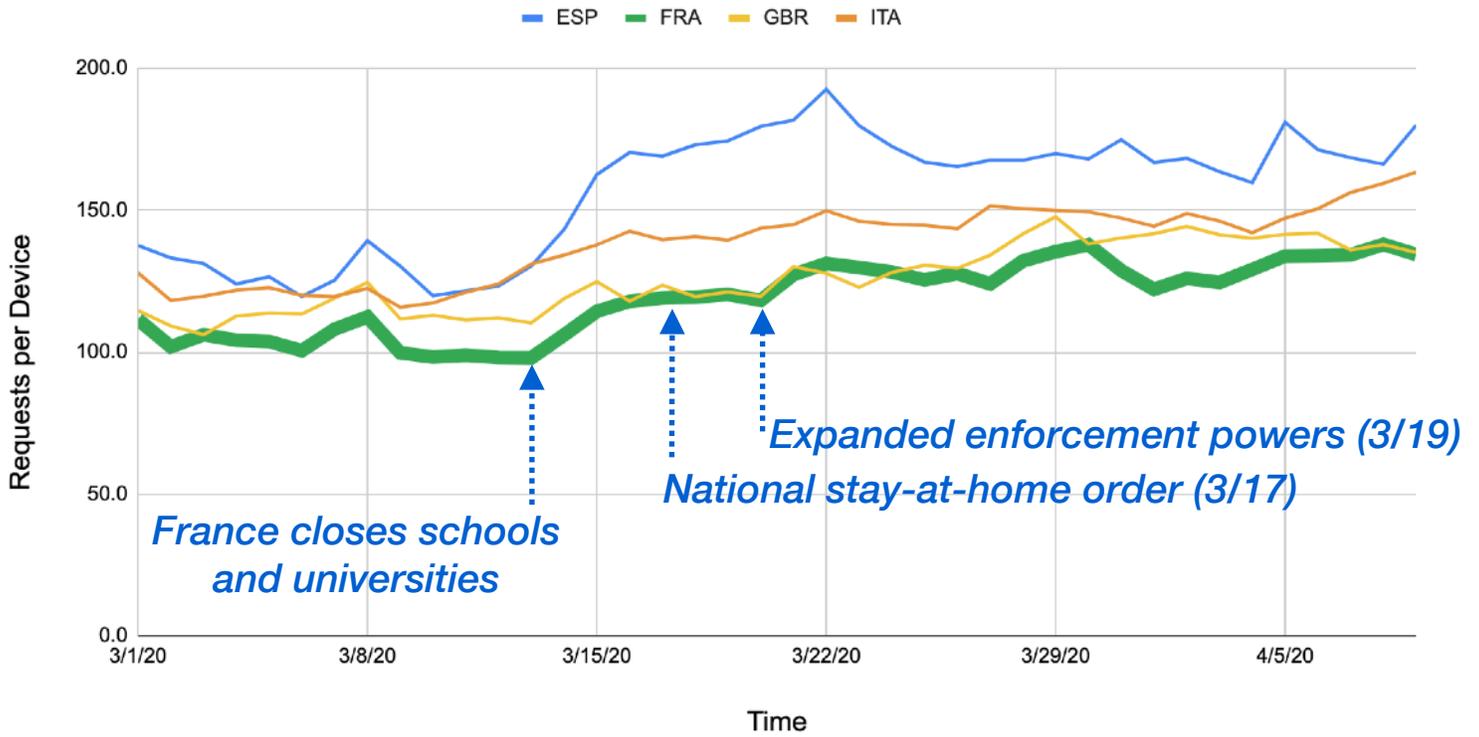


Observable App Usage Trends on MoPub's Exchange - Spain

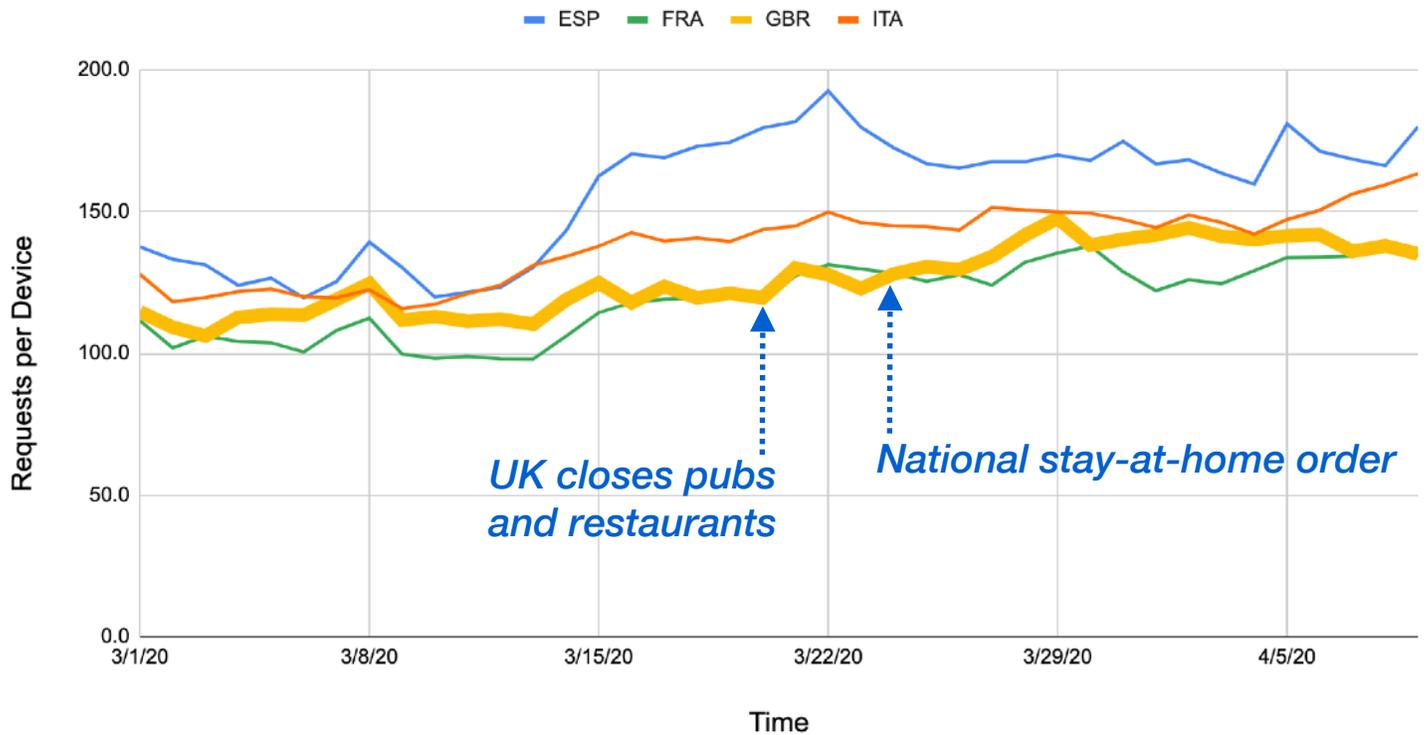


Inventory impact by market

Observable App Usage Trends on MoPub's Exchange - France



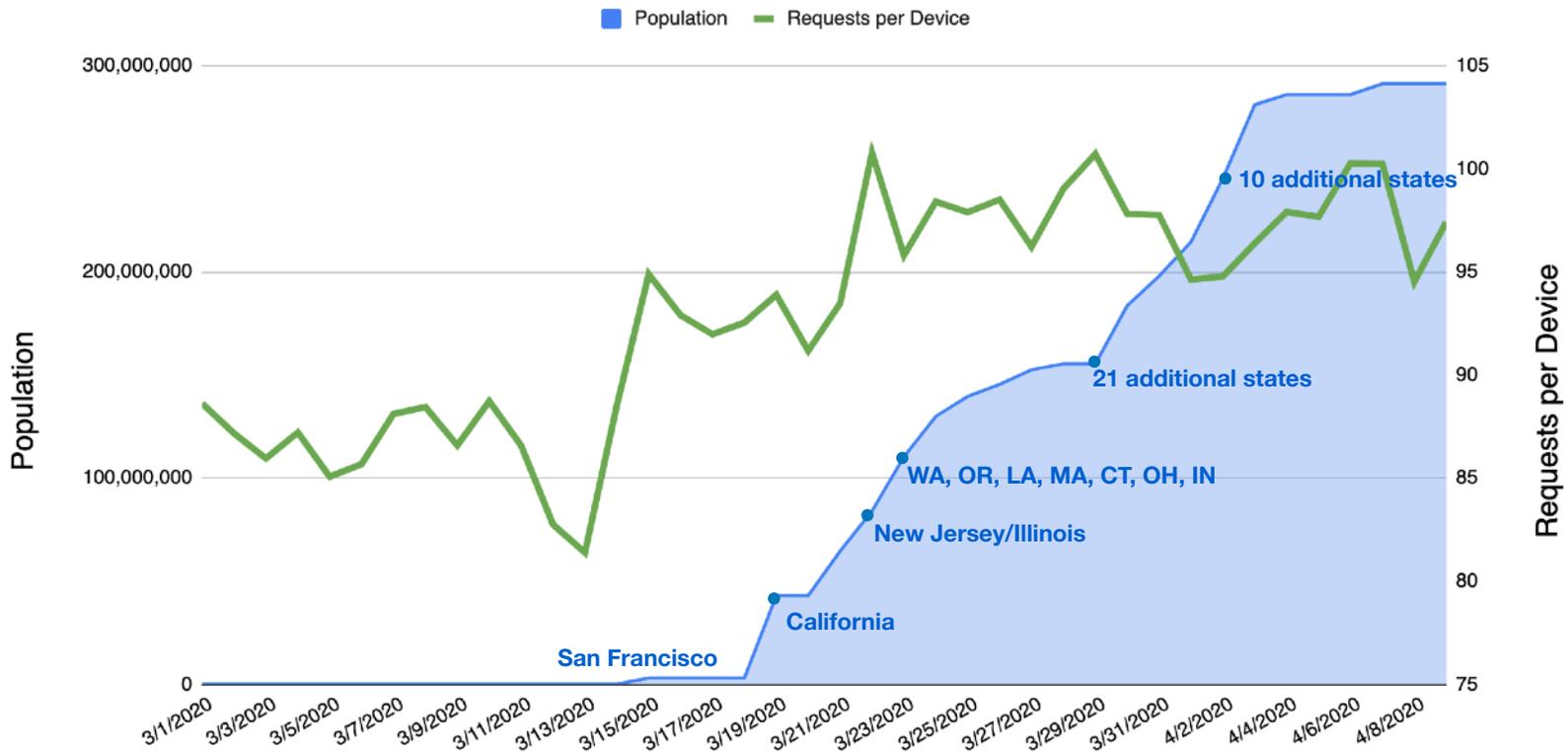
Observable App Usage Trends on MoPub's Exchange - Great Britain





Observable COVID-19 impact on MoPub's exchange: USA

The impact in the United States is particularly interesting. There is no national stay at home mandate strategy, but the cascading stay-at-home orders that were enacted by local and state governments appear to drive the same increase in mobile usage over time.



Takeaway:

The cause and effect relationship between stay-at-home orders and increased app usage is extremely clear. We believe both buyers and publishers should expect this same trend to likely continue in markets that are later in their impact and mitigation phase, such as Russia and Japan, or in situations where these control measures are reintroduced, which seems possible in parts of China.

How can you adapt over the coming period?

For media buyers

We have expanded our curated inventory offering to include DealIDs that group top downloaded apps by market. These Deals offer an efficient mechanism to direct spend at the content people are turning to in this unprecedented time. [Contact](#) our Demand Team for information and activation.

For publishers

We recommend activating Advanced Bidding. For the immediate future, we also recommend focusing on the ad formats and buying partners that skew toward user acquisition. Our Publisher Services team is available to assist with activation and optimization strategies.

For everyone

This is a tough time — our top priority is the safety and well-being of all of our partners, clients, and all Twitter employees. If you're looking for additional resources for your business at this time, Twitter has recommendations for [brand communications during times of crisis](#). You can also stay up to date with information about COVID-19 from credible, authoritative news sources and public health agencies by following [Twitter's live curated coverage](#).

