

# The Rise of Consent-based Advertising

2021 PageFair Adblock Report



# Foreword

We are excited to present the 2021 PageFair Adblock Report, the seventh in this series. Adblocking on mobile continues its strong linear growth, driven chiefly by the rapid adoption of mobile browsers that block advertising by default. Desktop adblocking also shows a moderate rise for the first time since 2016, possibly on account of more people using laptops and desktops to browse the web at home due to worldwide Covid-19 restrictions.

Amidst this multi-platform renewal of adblocking, one silver lining for publishers is the growing adoption of Acceptable Ads, a framework that allows publishers to earn revenue by serving light, non-intrusive ads to consenting users of participating adblockers. This report is the first to estimate the size and growth of this user base; in 2020, **the number of users consenting to receive Acceptable Ads crossed 200M for the first time**, with 435% growth on mobile from 2019 to 2020.

We also surveyed 5,423 US Internet users about their adblock usage as well as their perceptions about ads and privacy. One key finding from this survey is that while users value their online privacy more than ever, 74% don't mind being advertised to as long as it is consent-based and preserves their privacy.

Another striking finding from our survey is that US users' self-reported rate of adblock usage (~40%) is significantly greater than the 15-20% that most US publishers record with traditional adblock detection methodologies. Some of that discrepancy can be attributed to survey noise or respondent misconception as to what constitutes an adblocker.

However, we believe there is another major factor at play: the rise of the **"dark matter of adblocking"**; i.e. adblocking tools whose usage is hard to measure using conventional means because they block the very technologies publishers use to measure adblock visits, and they do not rely on the open-source EasyList blocklist. This includes network-level adblockers, those bundled with anti-virus or VPN software, hardware adblockers, as well as especially zealous adblocking browser extensions.

In future reports, we will seek to more precisely quantify this dark matter. In the meantime, everything points to the conclusion that it is growing in mass, even if we can't see it with the naked eye.

**Marty Krátký-Katz**  
Co-founder & CEO, Blockthrough



# Spotlight on Consent

In this sequel to the 2020 BT/PageFair Adblock Report<sup>1</sup>, we present the latest data gathered for global adblocking and results from our U.S. consumer survey about adblock usage and privacy preferences.

The increasing focus on user consent has been the driver of significant change in the advertising industry, from privacy regulations like GDPR and CCPA to Google's looming deprecation of third-party cookies.

As we undertake this historical industry-wide pivot, one hypothesis we wanted to evaluate is whether user preferences about ads and privacy fall on a spectrum as opposed to being binary, as the industry and privacy advocates alike have presumed. In the *Ads-Privacy Preference Matrix*, we break out user preferences into nine distinct user buckets and estimate the percentage of US users that fall into each bucket based on their responses to our survey. We think this information will be invaluable both for publishers trying to better understand their audience and adtech companies building solutions for the market.

You'll also find updated information on recurring themes from previous reports, such as the growth of desktop and mobile adblocking, region-wise penetration of adblocking, and a granular analysis of adblock countermeasures employed by the world's leading publishers.

We hope you find this report timely and useful.

<sup>1</sup> [2020 BT/PageFair Adblock Report](#)

## Table of Contents

### Introduction

2. Foreword
3. Table of Contents
4. Key Insights

### Empirical Adblocking Data

5. Desktop Adblock Users
6. Mobile Adblock Users
7. Global Adblock Penetration
8. Growth of Acceptable Ads
9. Analysis of Adblock Countermeasures

### 2021 U.S. Adblock Survey Results

10. User Demographics
11. User Motivations
12. Consent in Advertising
13. Privacy Preferences
14. The Ads-Privacy Preference Matrix

### Appendices

15. About Blockthrough
16. Next Steps
17. Methodology
18. Acknowledgements

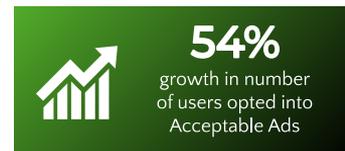
# Key Insights

At the end of 2020:

- **Mobile adblocking grew 10%** to reach **586M** users
- **Desktop adblocking grew 8%** to reach **257M** users

Other findings:

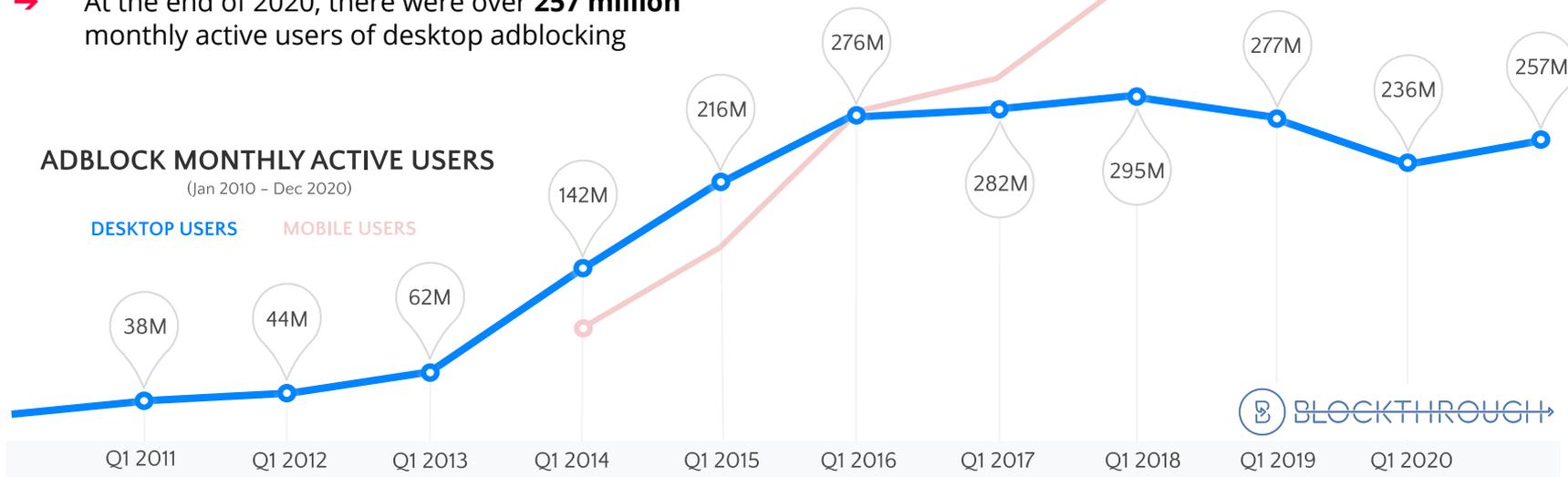
- **Adblock users** are twice as likely to **accept light, non-intrusive ads** rather than engage with adblock walls or pay for content
- **63% of top US Comscore publishers** reviewed in this report were using some type of adblock countermeasure, up from 56% last year
- **67% of US Internet users** think that the quality of advertising on the web has either declined or stayed the same in recent years
- User adoption of **Acceptable Ads is growing fast**, reaching 218M users in 2020, with **435% growth on mobile** over the last two years



# Desktop Adblock Users

Desktop adblock usage rebounds after a period of slight decline

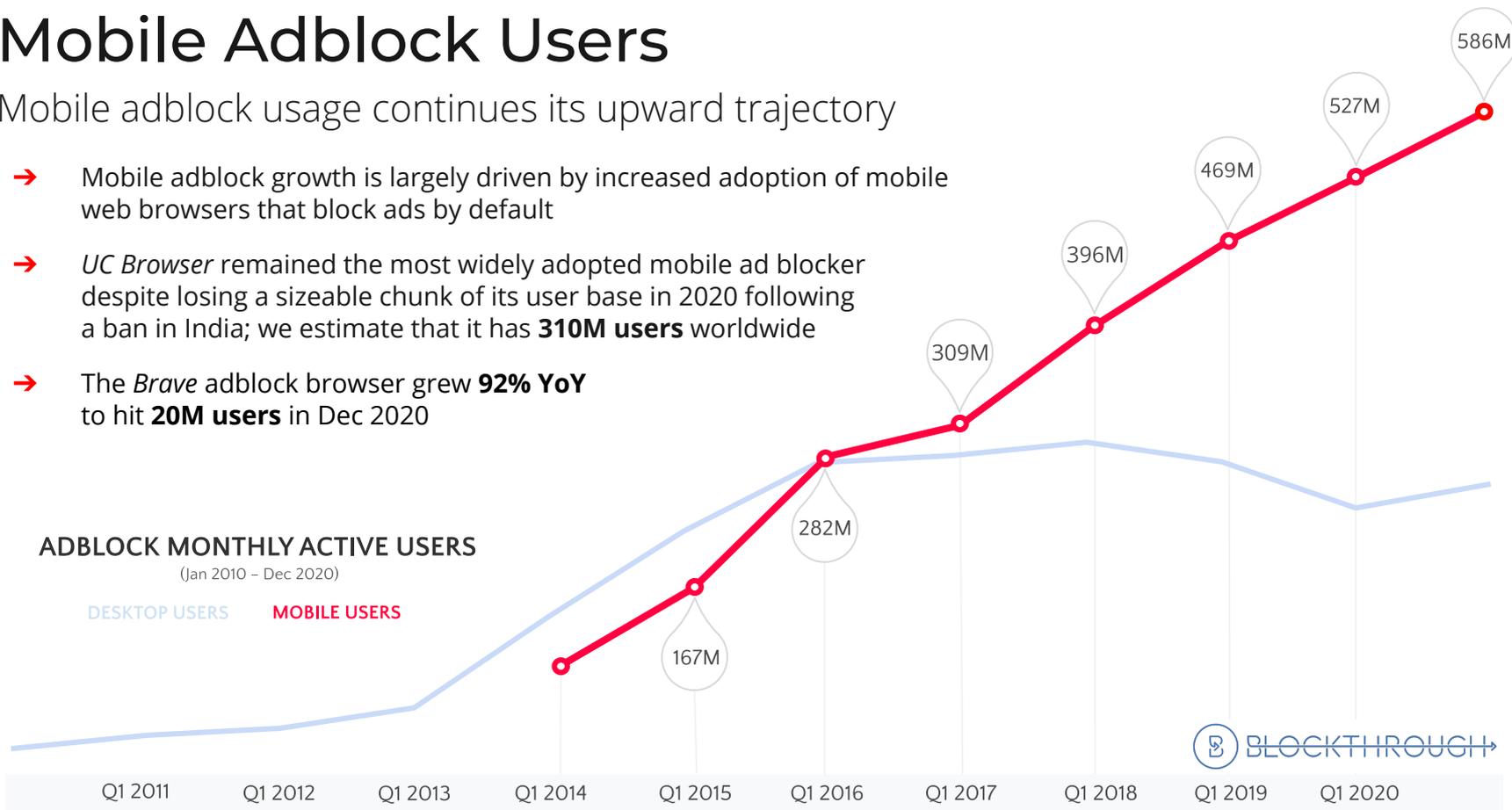
- These estimates omit users of adblockers not reliant on the EasyList blocklist; i.e. they do not account for the “dark matter of adblocking” (see Foreword, Slide 10)
- Following a period of decline between Q1 2018 and Q4 2019, desktop adblocking is on the rise again, growing almost **9% YoY**
- At the end of 2020, there were over **257 million** monthly active users of desktop adblocking

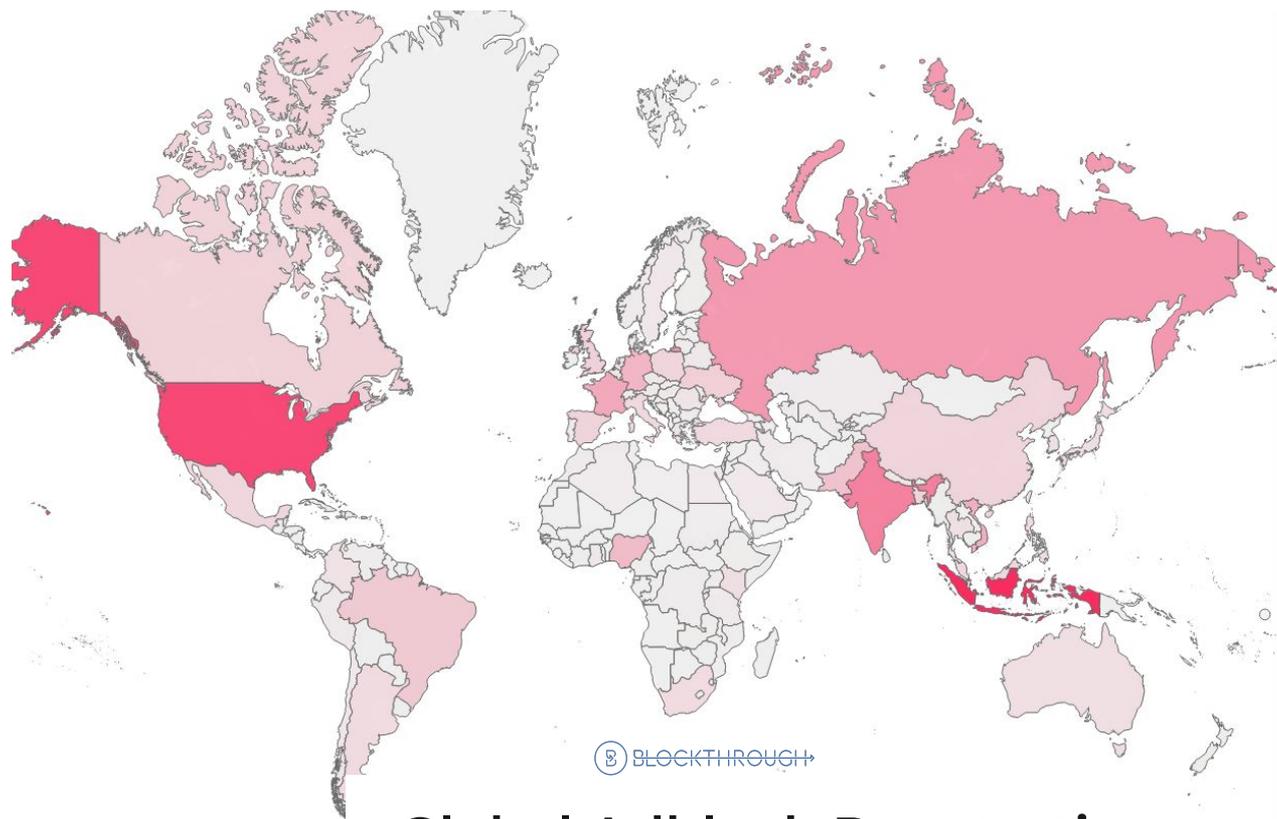


# Mobile Adblock Users

Mobile adblock usage continues its upward trajectory

- Mobile adblock growth is largely driven by increased adoption of mobile web browsers that block ads by default
- *UC Browser* remained the most widely adopted mobile ad blocker despite losing a sizeable chunk of its user base in 2020 following a ban in India; we estimate that it has **310M users** worldwide
- The *Brave* adblock browser grew **92% YoY** to hit **20M users** in Dec 2020





Region-wise share of total adblocking
Asia (40.6%)
Europe (29.6%)
Americas (19.2%)
Africa (9.2%)
Oceania (1.2%)

# Global Adblock Penetration

EasyList-based adblockers only (December 2020)

# Acceptable Ads Crosses 200M Users

User opt-ins for Acceptable Ads continue to grow at a fast rate, especially on mobile devices

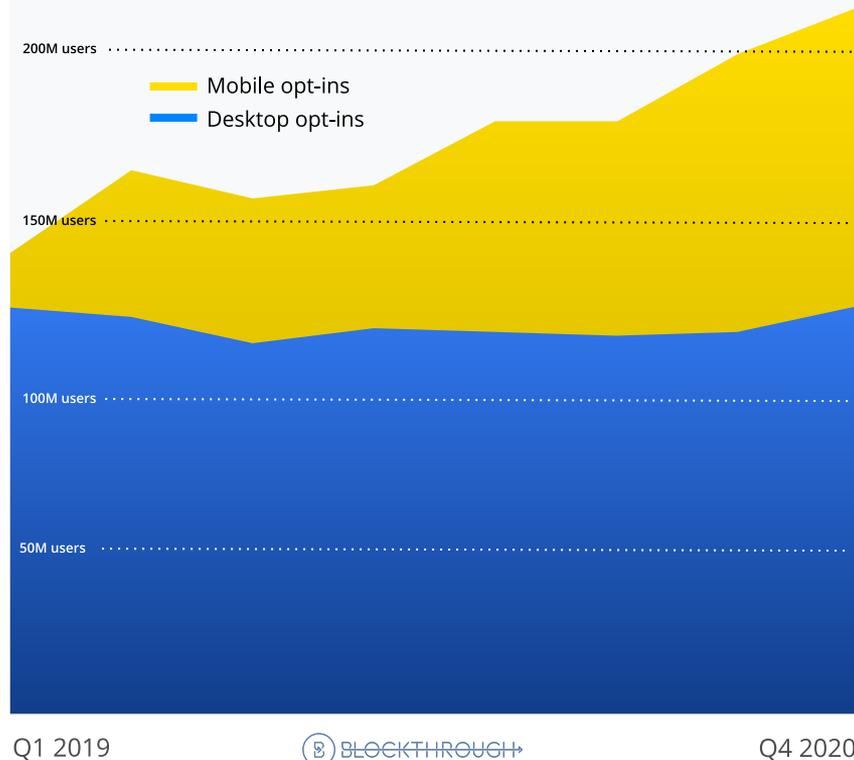
## Key Findings

- Acceptable Ads has a **93% average opt-in** on desktop and mobile devices for adblockers that support it
- By the end of 2020, a **total of 218 million adblock users had opted in to Acceptable Ads**, up 54% from the beginning of 2019
- **Mobile opt-ins for Acceptable Ads increased by 435%** in this time, from 17 million at the start of 2019 to 91 million by the end of 2020
- The **consent mechanism** for Acceptable Ads is **at the browser/extension level**, eliminating the need for site-level opt-in

## Analysis

The Acceptable Ads ecosystem enables publishers to engage their adblock users with light, consented advertising. The rapid growth of the ecosystem and high opt-in rates make ad recovery via Acceptable Ads the most effective and respectful technique for monetizing adblocked inventory.

## Global opt-ins for Acceptable Ads



# Analysis of Adblock Countermeasures

Last year, we reviewed the adblock monetization strategies employed by the top 100 Comscore-ranked publishers impacted by adblocking. This year, we used the same list of publishers to re-run the analysis. **63% of them were using at least one adblock monetization strategy**, up from 56% in 2020.

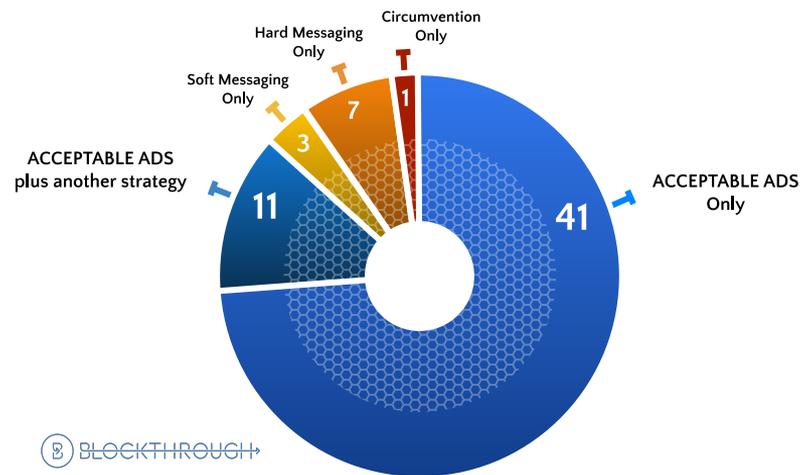
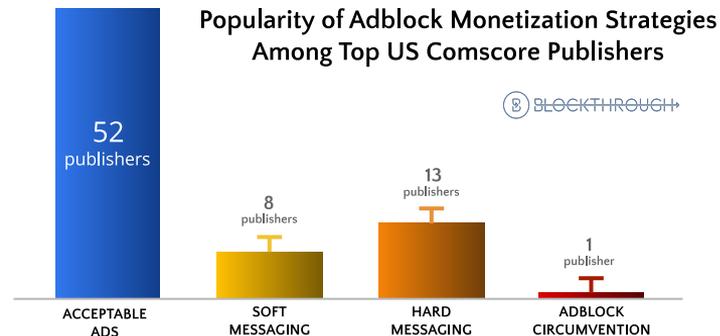
## Key findings

Of the 63 publishers that take measures to monetize adblock users:

- **52 use ad recovery via Acceptable Ads**, up from 49 in 2020. Only 8 of these work directly with participating adblockers; the remainder work with an adtech provider who supports Acceptable Ads.
- **9 of the top 10 Comscore-ranked publishers** in the U.S. (including Google, Verizon, and Amazon) monetize with Acceptable Ads.
- **Blockthrough was the most popular dedicated provider**, with 48% market share among top publishers using Acceptable Ads.
- Only 1 major US publisher (**Facebook**) uses adblock circumvention.

## Analysis

Last year, we reported that the top ad-funded U.S. publishers have embraced the Acceptable Ads ecosystem as the most reliable and sustainable medium for monetizing their adblocked audience. This year, that trend continued, with a majority of US publishers now using Acceptable Ads.



Share of top US Comscore publishers using different adblock mitigation strategies

# US Adblock Survey (2021)

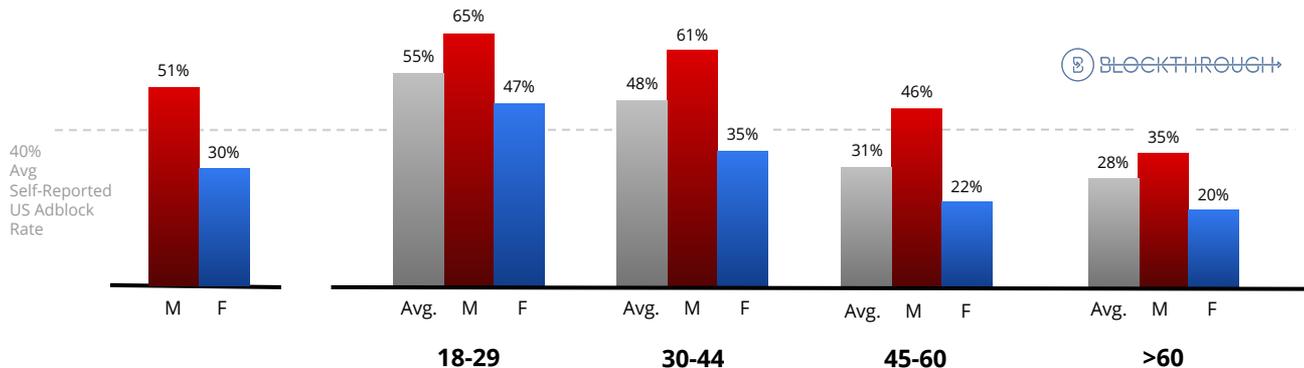
Self-reported adblock usage among US Internet users hints at “dark matter”

## Key Findings

- **40% of US Internet users claim to use an adblocker**, but there are caveats (see Analysis)
- Almost **twice as many** US adblock users were blocking ads on desktop and laptop compared to mobile devices

## Analysis

These results are in line with other recent industry reports that surveyed US users about their adblock usage. While some of those 40% may be false positives, almost 90% of adblock users could name the adblocker they use, hinting at a “**dark matter of adblocking**”; i.e. growing user adoption of adblockers that block the very technologies publishers use to record these users’ visits. We estimate that the adblock rates detected by most common adblock detection methodologies only record about 60-80% of total adblock usage. These forms of adblocking are not counted in our desktop and mobile usage graphs.



In March 2021, Blockthrough surveyed 5,423 US Internet users to learn more about their adblock usage, perceptions about specific adblock recovery mechanisms, knowledge of privacy regulations, and general privacy preferences.

The following pages present findings from that survey.

# User Motivations

Bad ad experiences replace security as the leading motivation for the use of adblockers

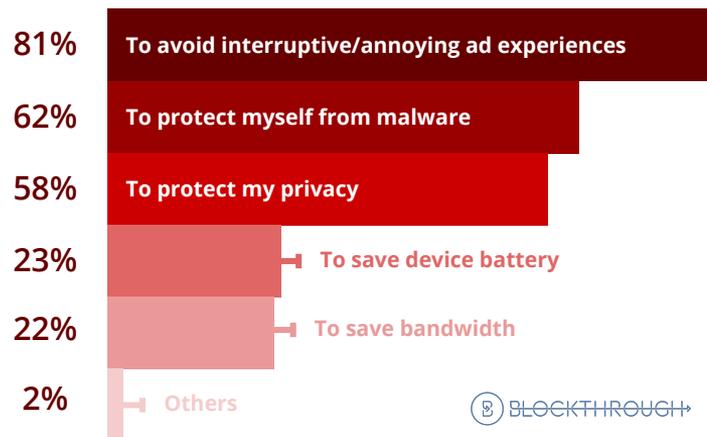
## Key Findings

- 36% of respondents said that overall **ad quality on the Internet has declined** in the last few years, 31% said there's been **no change in ad quality**, while only 19% said that **ad quality has improved**
- 37% of respondents stated that they began using an ad blocker within the last two years; the remaining 63% have been long-time users
- **7.4% of all surveyed users had stopped using an ad blocker** because: (1) The blocker wasn't consistent, (2) the blocker frequently blocked non-advertising content, and (3) to support publishers

## Analysis

In the last PageFair Adblock Report to include an audience survey (2017), security was found to be the leading motivation for the use of ad blockers. In 2021, bad advertising experiences take the top spot. Despite industry initiatives such as the *Better Ads Standard* and Chrome's ad filtering updates, the new survey data indicates that those efforts have not had an immediate impact on user perceptions of the quality of online advertising.

## Motivation for using ad blockers



## Most popular adblockers in the US

*(users could select multiple options)*

**AdBlock** (50%), **Adblock Plus** (25%), **AdGuard** (19%), **uBlock Origin** (16%), **uBlock** (11%), **Brave** (10%), **Opera** (9%), **Ghostery** (7%), and **Others, including Ad Remover, Norton, Kaspersky, Blokada, Pi-hole, and Avast** (11%)

# Consent in Advertising

Adblock users are over twice as likely to consent to Acceptable Ads as to comply with “adblock walls”

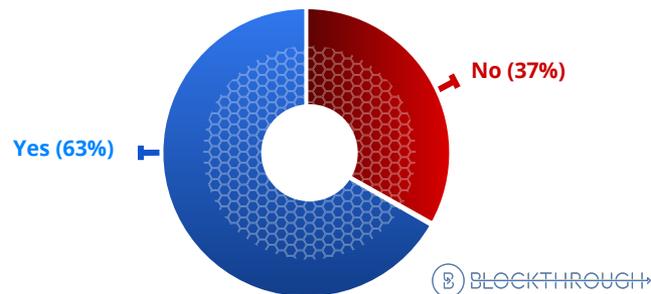
## Key Findings

- When asked if adblock users are willing to accept **light, non-intrusive advertising** to support web publishers, **63% of respondents said “yes”**
- When presented with an **adblock wall**, 68% of respondents said they would exit the website, 22% said they would whitelist the website, and 5.7% said they would be willing to buy an “ad removal” pass
- **Only 15% of respondents** said that they are “likely” to purchase a paid subscription to access the content they are looking for

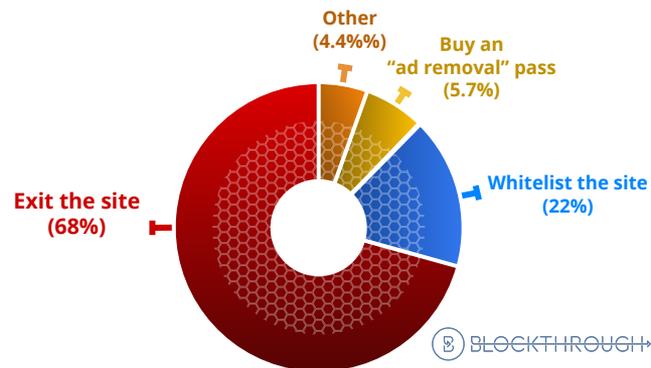
## Analysis

Consent-based advertising (via Acceptable Ads) and messaging-based tools (such as adblock walls) are the two leading strategies publishers use to engage their adblocked audience. Our survey demonstrates that **adblock users overwhelmingly prefer a light, non-intrusive advertising experience across the Web**, compared to all other strategies combined, such as complying with whitelist requests or paying to access content on a per-site basis.

Would you be willing to accept light, non-intrusive advertising to support web publishers?



If a website blocks access to adblock users, what is your next step likely to be?



# Privacy Preferences

Privacy takes center stage as users desire more control over their data and how it is used

## Key Findings

- **Online privacy is increasingly important to Internet users.** When asked how much they value their online privacy, 56% of users rated it as “extremely important” and 31% rated it as “somewhat important”
- **74% of all users don’t mind being advertised to** as long as the ads don’t compromise their **privacy** and meet certain **quality standards**
- **Only 14% of all users** we surveyed believed that privacy regulations like GDPR and CCPA improved their online privacy
- **Cookie notices** have become common ever since newer privacy regulations came into effect. 21% users report rejecting all cookies when presented with a cookie notice by a website, while 69% either accept all cookies or selectively accept some types of cookies

## Analysis

Our privacy preference questionnaire debunks the common misconception that most users dislike advertising, in reality—**users are simply far more sensitive about their personal data** and how it relates to advertising. This is also established on the next slide, where thousands of users rate the importance of privacy and their openness to advertising on a sliding scale.

Do you think recent privacy regulations such as GDPR and CCPA have improved your privacy?



When presented with a cookie notice by a website, what action are you most likely to take?

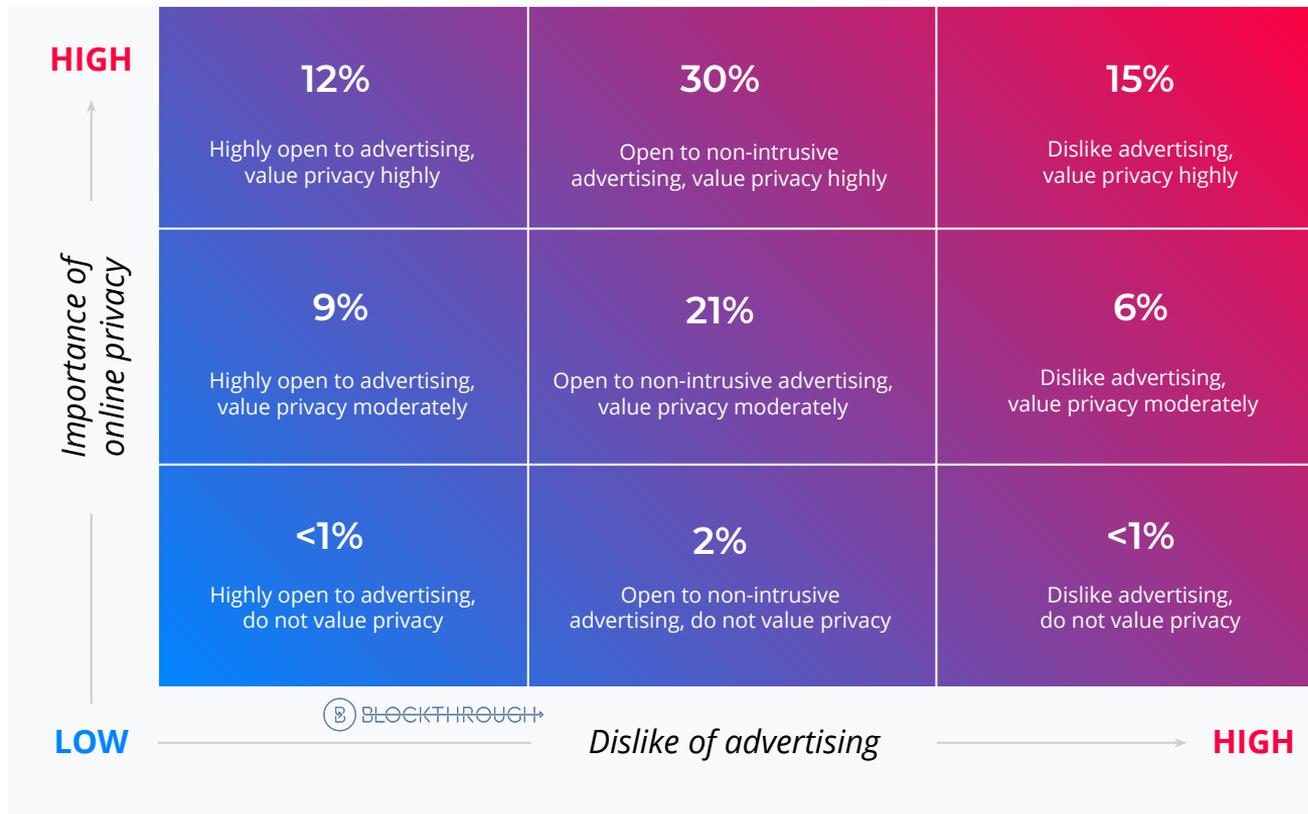


# The Ads-Privacy Preference Matrix

All users perceive advertising and value privacy in different ways. We asked our survey audience (including adblock users and non-adblock users) to evaluate their feelings about advertising and online privacy on a spectrum.

We then slotted them in the appropriate cell on this matrix. It's immediately clear that a top concern for most Internet users today is safeguarding their online privacy.

Additionally, only 21% of users dislike advertising enough to reject it in all forms.



# About Blockthrough

Founded in 2015, Blockthrough is the market leader in adblock monetization. Publishers use our best-in-class technology to serve Acceptable Ads to consenting adblock users, with the option of using their existing programmatic demand partnerships or plugging in Blockthrough's demand.

Blockthrough acquired PageFair in late 2018, and this report is a continuation of the annual PageFair Adblock Report, which was instrumental in driving industry dialogue about and publisher awareness of the state of global adblocking since the launch of the first edition in 2013.

We're passionate believers in the free Internet and, at the same time, are adblock users ourselves. We believe that publishers have the right to monetize their content, and their users deserve an outstanding experience.

We're also incredibly proud of [our talented and hard-working team](#).



# Next Steps

## Publishers

- [Check this revenue recovery calculator](#) to get an estimate of how much adblock revenue you can recover or email us at [sales@blockthrough.com](mailto:sales@blockthrough.com) to learn more about our market-leading adblock monetization solution
- Sign up to [our newsletter](#) and follow us on [Twitter](#) or [LinkedIn](#) to keep abreast of the latest developments in the adblock-mitigation world

## Advertisers

- To learn how you can advertise to hard-to-reach, consenting adblock users via Acceptable Ads, email us at [contact@blockthrough.com](mailto:contact@blockthrough.com)

## Journalists

- Feel free to reproduce any part of this report, attributed to Blockthrough
- Email [vj@blockthrough.com](mailto:vj@blockthrough.com) for media inquiries



### EASY TO IMPLEMENT

Most publishers can get live within a sprint cycle.



### ALL BROWSERS AND PLATFORMS

Compatible with every mainstream browser (desktop & mobile).



### WORKS WITH YOUR EXISTING PARTNERS

Bidthrough uses your existing programmatic setup.



### RICH ANALYTICS

Keep track of your audience's adblock adoption, and how much new revenue you're earning.

# Methodology

## Calculation of Desktop Adblock Users

In our 2020 PageFair Adblock Report, the number of devices using adblock software on desktop/laptop computers was calculated by estimating the number of monthly active adblock users that are required to generate the number of downloads that were recorded for blocklists in each historical month.

A blocklist is a frequently-updated structured text file that contains rules about how to block ads on websites. All major desktop adblock software works by downloading one or more community-maintained blocklists to drive their behavior. Normally they download the “*Easylist*” blocklist, or download a *combolist*, which combines both Easylist and a language-specific blocklist. For example, “*Liste\_FR+Easylist*” provides additional rules to block ads on the French web. Each blocklist includes an expiry header, which tells the client software how many days to wait before downloading a newer version. For example, given a web browser configured with an adblock extension which is subscribed to a blocklist with an expiry of 4 days, that computer will download that blocklist once every 4 days so long as the browser remains open. If the web browser is shut down, it will re-download the blocklist at its next available opportunity. All of the major community blocklists are hosted by Eyeo GmbH (“*Eyeo*”), the company that operates *Adblock Plus* (the most popular desktop adblock software). Eyeo therefore has 1st party access to basic web statistics about the traffic received by each blocklist.

This year, due to the increasing complexity involved in aggregating raw data (filterlist downloads) from multiple sources, Eyeo instead shared their own internal estimations for the number of active users for the years 2019 and 2020. Eyeo’s internal method of estimating active devices is very conservative. They exclude devices that installed in the counting period and devices that recently were inactive for more than 30 days. In order to counterbalance this underreporting, we calculated the average variation between MAUs estimated using our older methodology and new MAU estimates provided by Eyeo for 2019. We then used this average variation to extrapolate MAU estimates for all the four quarters of 2020.

## Calculation of Mobile Adblock Users

Whereas the majority of desktop adblocking can be measured via blocklist downloads, the same is not true for mobile, where mobile browsers that block ads by default are the main driver of adblocking. We therefore cannot rely only on Eyeo’s internal estimations of mobile adblocking to present an accurate estimate for adblocking on mobile. In the previous report, we calculated the number of users for the most popular mobile adblock browsers, i.e., UC Browser, Opera, and Brave, to arrive at the total estimate for mobile adblocking. This year, we followed a similar approach, but updated our data sources. The MAU numbers for Brave and Opera were obtained directly from their official releases about user growth. For quarters where this data was not available, we linearly extrapolated the known values to fill missing data points. Since UC Browser does not release any official MAU numbers, we explored alternative ways of estimating its active user base.

For the last report, we relied on internet populations per country and Statcounter data about device split between devices and market share of mobile browsers to estimate MAUs for both Opera and UC Browser. However, we found a significant difference between the MAUs we estimated and the official numbers released later by Opera for those quarters. Thus, repeating the same methodology for UC Browser might have reproduced similarly inaccurate results. So for this year, instead of combining estimates of traffic share with internet population per country, we estimated UC Browser’s active users by comparing its traffic share to Opera’s, and then using Opera’s official MAU numbers to create projections for UC Browser.

Finally, we added the MAU estimates for UC Browser, Opera, and Brave to a reduced dataset of the internal estimates provided by Eyeo for adblocking on mobile to eliminate any potential double counting.

## Global Adblock Penetration

The heatmap of adblock penetration by region was created using Eyeo’s estimates for active users and new installations for large geographic regions at the end of 2020. In this report, we are not providing country-level estimates for the percentage of adblock users by region for two reasons:

First, as stated previously, Eyeo’s internal estimates tend to be very conservative. We are confident in our methodology’s ability to create global estimates for desktop adblocking, but extrapolating country-level data might have introduced too many statistical artefacts for us to be confident in our estimations. Second, the marked rise in adoption of difficult-to-detect adblockers (the “dark matter” we reference throughout the report) that do not rely on EasyList downloads would have resulted in substantial underreporting of country-level penetration. With that in mind, the adblock penetration data we present in this report shows the country-level concentration of active users who use EasyList-reliant adblocking software only.

## 2021 US Adblock Survey

For our audience panel, we partnered with a leading third-party survey vendor to target a sample size of 5,423 users to make sure that the data we collect is statistically significant. We applied basic census controls to make sure that both genders and all major age groups have equal representation in the survey.

For the survey itself, we used a conditional logic to steer users towards questions that are most relevant to their specific experience with adblocking software. All users were asked a series of questions about their general privacy preferences and attitude towards advertising regardless of whether or not they currently use an adblocker. For active adblock users, we had an additional inventory of questions specifically targeting their motivations for using an adblocker, which devices they are blocking ads on, what they think about adblock walls, and which adblocker they are using, etc. The last category of users, who previously used an adblocker but stopped, were asked to share their motivation for not using an adblocker anymore.

# Acknowledgements

## **Vishveshwar Jatain**

Thank you to Vishveshwar Jatain for all his hard work conducting the analysis, planning, and execution of this report.

## **Stephan Porz**

For helping us analyze and interpret the adblocking estimates that are presented in this report.

## **Ben Williams**

For providing data related to country-level adblocking estimates and Acceptable Ads opt-ins for 2019 and 2020.

## **Sean Blanchfield**

For his feedback and suggestions related to specific parts of this report and sharing the context of past reports.

## **StatCounter**

Thank you to the StatCounter team, who generously make a wealth of Internet analytics available for free.