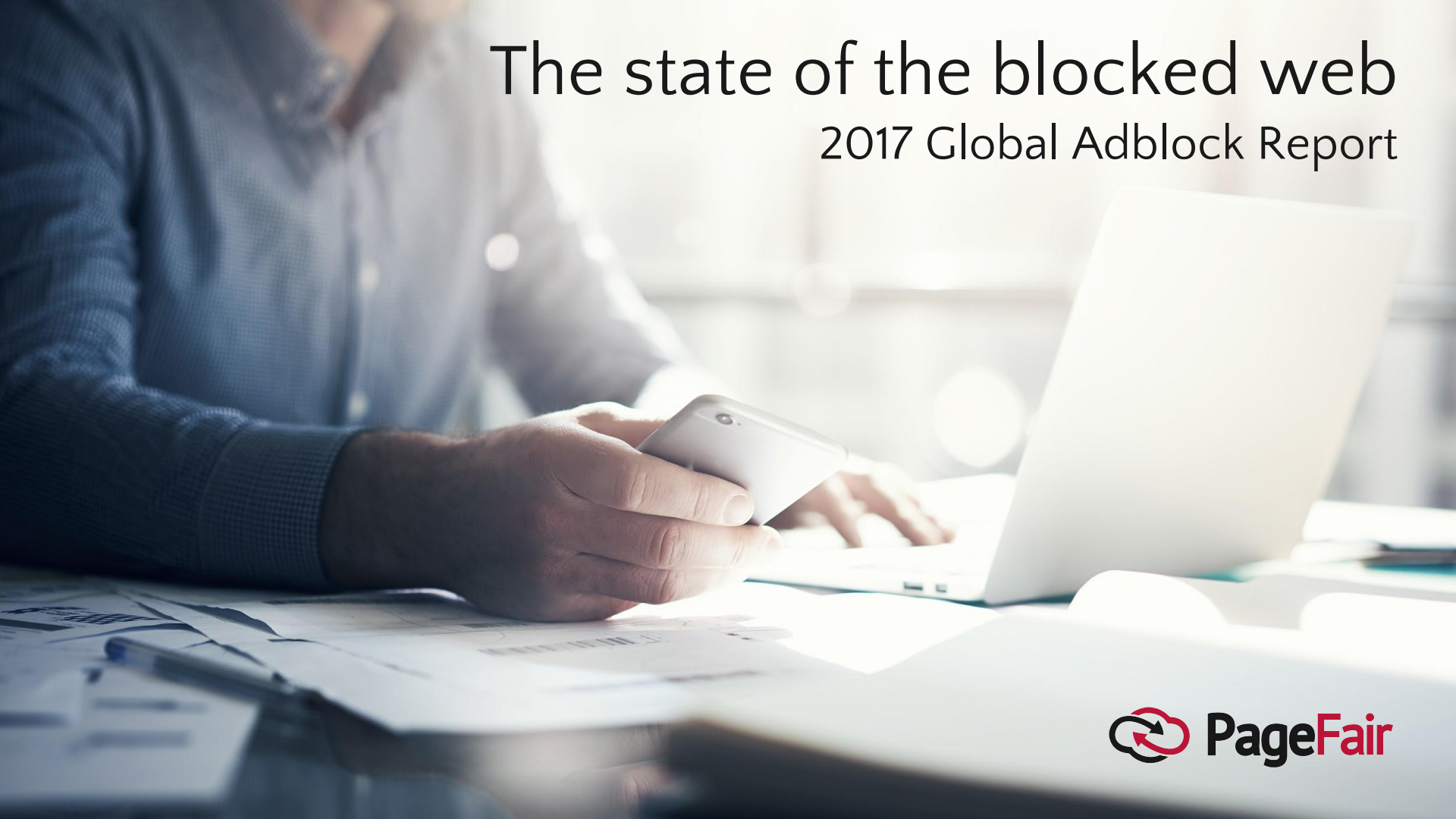


The state of the blocked web

2017 Global Adblock Report



Foreword

In this latest annual report, we present a combined picture of desktop and mobile adblock usage for the first time. Mobile adblock usage is growing explosively in Asia and is set to spread to North America and Europe as well.

This report also includes the results of our latest survey of adblock users, which used improved screening questions to specifically identify adblock users. These results suggest that adblock usage has broadened to older age groups and to both genders. These users are especially motivated by security and interruptive ad formats.

For adblock users, adblock is akin to a firewall or antivirus, and it is here to stay. Adblock users will continue to employ adblock software as protection against ads that intrude on security, invade privacy, interrupt UX, slow pages, and expend bandwidth.

The open web is a big and messy place, and so long as some websites prefer short-term profit to collective sustainability, bad advertising will persist and people will continue to use adblock software.

We can restore a healthy publisher-consumer relationship on *the blocked web*, and build sustainable monetization of content. In fact, we are already well on our way.

PageFair is part of the IAB TechLab working group that is developing the new LEAN standard. Our tamper-proof ad serving technology embraces LEAN. It also adopts specific consumer-focussed solutions to respect user UX, security, and privacy. For example, it does not traffic untrusted JavaScript into web browsers, and it shuts down data leakage to protect user privacy.

We believe that the only solution to adblock is fixing the problems that led people to block ads in the first place. Tamper-proof ad serving technology has matured to the point where publishers can serve ads on the blocked web.

This is the precisely what Facebook has done. The platform now attributes significant revenue growth to having taken this step, and we estimate it will net a further three quarters of a billion on the blocked web in 2017.

Publishers are now following suit, listening to users' legitimate grievances, fixing those problems, and then serving ads using tamper-proof technology.

This in turn is creating an opportunity for brands to reach the blocked web, which is an entirely uncluttered space, free from fraud.

I invite you to learn more by subscribing for our latest insights via *PageFair Insider* [here](#).

Sean Blanchfield
CEO & Co-founder, PageFair
February 2017



The journey from desktop to mobile

Adblock software is at a tipping point between desktop and mobile. The proliferation of mobile adblock usage in Asia-Pacific markets has been powered by a strong consumer value proposition, and accelerated by distribution partnerships with major telecommunication companies and device manufacturers. No obstacles exist to prevent an equally rapid expansion of similar forms of mobile adblocking on mobile devices in North America and Europe.

Table of contents

Introduction

2. Foreword
3. Table of contents
4. Key insights

Empirical Adblock Data

5. The global picture
6. Device migration is affecting growth
7. Adblock penetration per online capita
8. Index of adblock penetration by country and region
9. The rise of mobile adblock usage

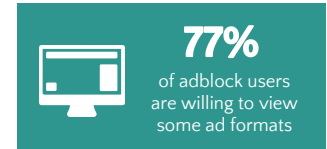
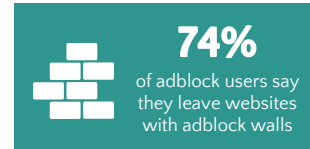
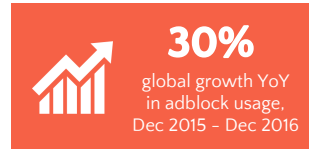
US Adblock Survey Data

10. Adblock user demographics
11. How adblock grows
12. Adblock user motivations
13. Verdict on “adblock walls”
14. Polarized attitudes to ad formats
15. Adblock users are more educated

Appendices

16. About PageFair
17. Further reading
18. Methodology & references
20. Acknowledgements

Key insights



New empirical data from PageFair shows:

- Mobile adblock usage surged in Asia-Pacific by **40%** in 2016.
- Adblock adoption on desktop and laptop computers continues to grow despite user migration towards the mobile web.
- In December 2016 there were **over 600 million** devices running adblock software globally, **62%** of which were on mobile devices.
- Large emerging markets are the current driving force behind rapid growth in mobile adblock usage.

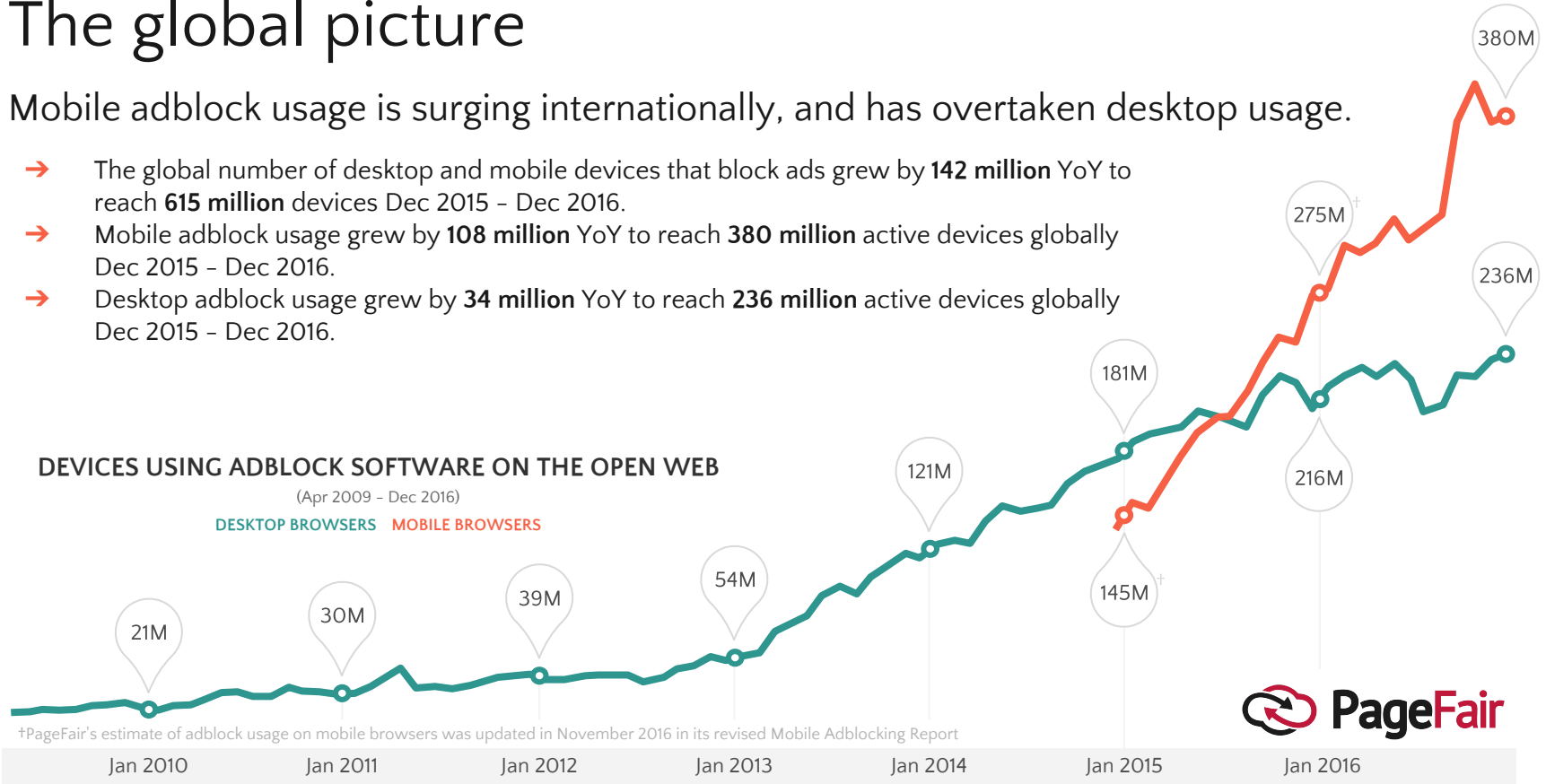
New PageFair survey of 4000+ internet users in the United States:

- Specific **interruptive ad formats** and **security concerns** are the leading motivations in adblock usage.
- Adblock users in the US are **1.5x** as likely to have a bachelor's degree than the average American adult, increasing to **3x** as likely among 18-24 year olds.
- The vast majority of users state that they abandon websites that require them to disable their adblock software.

The global picture

Mobile adblock usage is surging internationally, and has overtaken desktop usage.

- The global number of desktop and mobile devices that block ads grew by **142 million** YoY to reach **615 million** devices Dec 2015 - Dec 2016.
- Mobile adblock usage grew by **108 million** YoY to reach **380 million** active devices globally Dec 2015 - Dec 2016.
- Desktop adblock usage grew by **34 million** YoY to reach **236 million** active devices globally Dec 2015 - Dec 2016.



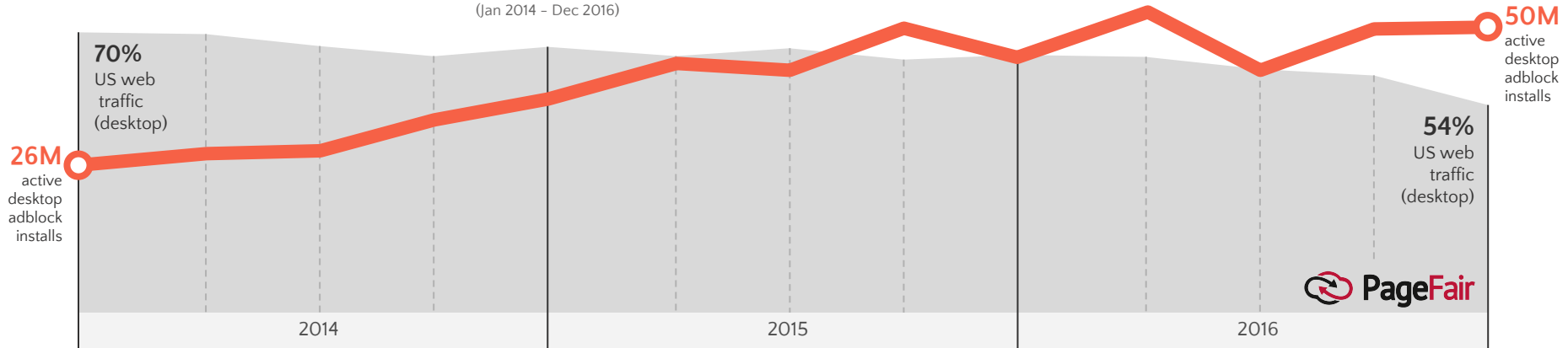
Device migration is affecting the growth of adblock

Adblock usage on desktop browsers continues to grow despite the decline in overall desktop usage.

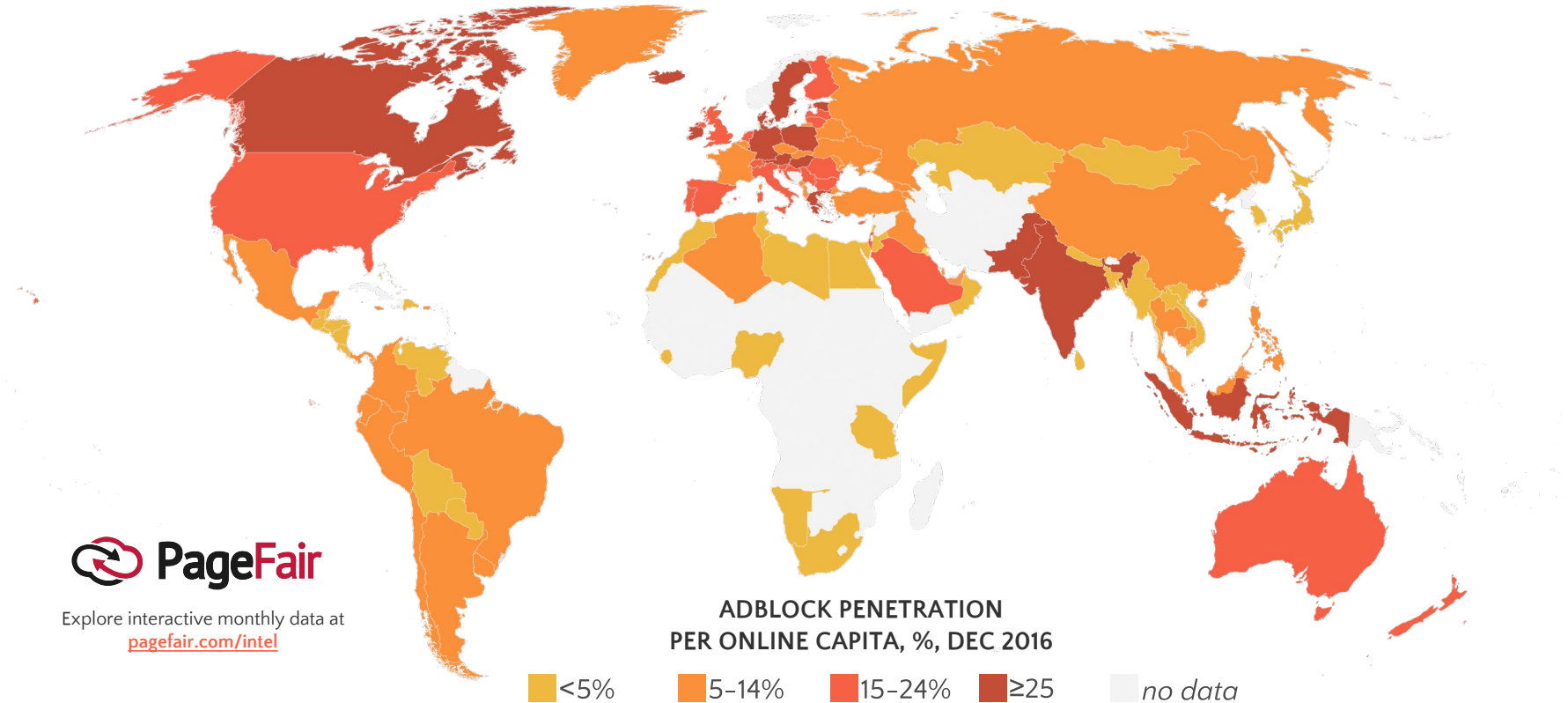
- Although mobile adblock usage is widespread in Asia, no single solution has yet taken off in North America or Europe.
- Legacy desktop adblock installations are not yet being replaced with mobile equivalents.
- The first mobile adblock solution to gain traction in North America or Europe will connect with a large, latent audience of former desktop adblock users.

US DESKTOP ADBLOCK SOFTWARE INSTALLS VS DESKTOP WEB TRAFFIC

(Jan 2014 - Dec 2016)



Adblock penetration per online capita



Explore interactive monthly data at pagefair.com/intel

Index of adblock penetration by country and region

Top Ad Markets (ad spend)

Adblock penetration per online capita, %



	Desktop	Mobile	Overall
U. States	18%	1%	18%
China	1%	13%	13%
U. Kingdom	16%	1%	16%
Japan	3%	-	3%
Germany	29%	1%	29%
Australia	20%	2%	20%
Canada	24%	-	25%
France	11%	1%	11%
Brazil	6%	1%	6%
South Korea	4%	-	4%
Russia	6%	3%	6%
Italy	17%	1%	17%
Netherlands	17%	2%	17%
Spain	19%	-	19%
Mexico	8%	-	9%
Sweden	27%	-	27%
Indonesia	8%	58%	58%
Denmark	25%	2%	25%
India	1%	28%	28%
Argentina	14%	-	14%
Finland	23%	-	23%

Ad Markets (region, A-Z)

Adblock penetration per online capita, %



	Desktop	Mobile	Overall
Asia-Pacific	3%	16%	16%
C.&E Europe	12%	1%	12%
L. America	7%	1%	7%
M.E. & Africa	2%	2%	2%
N. America	18%	1%	18%
W. Europe	20%	1%	20%
Worldwide	7%	11%	11%

All Ad Markets (country, A-Z)

Adblock penetration per online capita, %



	Desktop	Mobile	Overall		Desktop	Mobile	Overall		Desktop	Mobile	Overall
Albania	8%	-	8%	Germany	29%	1%	29%	Nicaragua	4%	-	4%
Algeria	5%	-	5%	Greece	39%	-	39%	Nigeria	-	2%	2%
Andorra	12%	-	12%	Greenland	7%	-	7%	Oman	2%	-	2%
Argentina	14%	-	14%	Guatemala	2%	-	2%	Pakistan	2%	32%	32%
Armenia	5%	-	5%	Honduras	4%	-	4%	Panama	5%	-	5%
Aruba	9%	-	9%	Hong Kong	10%	2%	10%	Paraguay	2%	-	2%
Australia	20%	2%	20%	Hungary	26%	-	26%	Peru	10%	-	10%
Austria	26%	-	26%	Iceland	27%	-	27%	Philippines	7%	3%	7%
Bahamas	4%	-	4%	India	1%	28%	28%	Poland	33%	-	33%
Bahrain	4%	-	4%	Indonesia	8%	58%	58%	Portugal	21%	-	21%
Bangladesh	2%	-	2%	Iraq	8%	-	8%	Puerto Rico	5%	-	5%
Barbados	9%	-	9%	Ireland	39%	-	39%	Qatar	6%	-	6%
Belarus	10%	-	10%	Israel	19%	-	19%	Romania	21%	-	21%
Belgium	12%	-	12%	Italy	17%	1%	17%	Russia	6%	3%	6%
Belize	4%	-	4%	Jamaica	5%	-	5%	Saudi Arabia	6%	21%	21%
Bermuda	10%	-	10%	Japan	3%	-	3%	Serbia	17%	-	17%
Bolivia	4%	-	4%	Jordan	3%	-	3%	Singapore	29%	9%	29%
Brazil	6%	1%	6%	Kazakhstan	3%	-	3%	Slovakia	9%	-	9%
Bulgaria	21%	-	21%	Kuwait	4%	-	4%	Slovenia	23%	-	23%
Cambodia	8%	-	8%	Laos	2%	-	2%	Somalia	2%	-	2%
Canada	24%	-	25%	Latvia	17%	-	17%	South Africa	2%	2%	2%
Chile	12%	-	13%	Lebanon	2%	-	2%	South Korea	4%	-	4%
China	1%	13%	13%	Libya	2%	-	2%	Spain	19%	-	19%
Colombia	8%	2%	8%	Lithuania	21%	-	21%	Sri Lanka	2%	-	2%
Costa Rica	6%	-	6%	Luxembourg	-	-	15%	Sweden	27%	-	28%
Croatia	22%	-	22%	Malaysia	5%	8%	8%	Switzerland	18%	-	18%
Cyprus	15%	-	15%	Malta	17%	-	17%	Thailand	6%	1%	6%
Czech Rep.	10%	-	10%	Mexico	8%	-	9%	Tunisia	2%	-	2%
Denmark	25%	2%	25%	Moldova	7%	-	7%	Turkey	7%	-	7%
Dom. Rep.	4%	-	4%	Mongolia	3%	-	3%	Ukraine	13%	-	13%
Ecuador	9%	-	9%	Montenegro	8%	-	8%	UAE	7%	14%	14%
Egypt	3%	2%	5%	Morocco	2%	-	2%	U. Kingdom	16%	1%	16%
El Salvador	4%	-	4%	Myanmar	2%	-	2%	U. States	18%	1%	18%
Estonia	26%	-	26%	Namibia	3%	-	3%	Uruguay	11%	-	11%
Finland	23%	-	23%	Nepal	2%	-	2%	Venezuela	3%	-	3%
France	11%	1%	11%	Netherlands	17%	2%	17%	Vietnam	4%	2%	4%
Georgia	5%	-	5%	New Zealand	24%	1%	24%				

The rise of mobile adblock usage

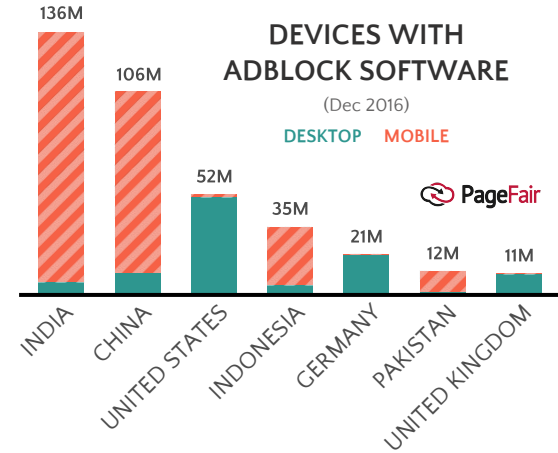
Mobile adblock is ready to expand into North America and Europe.

Key findings

- 94% of global mobile adblock usage is in Asia-Pacific, while 68% of desktop adblock usage is in North America and Europe.
- Mobile adblock usage has expanded rapidly onto 59% of smartphones in India.

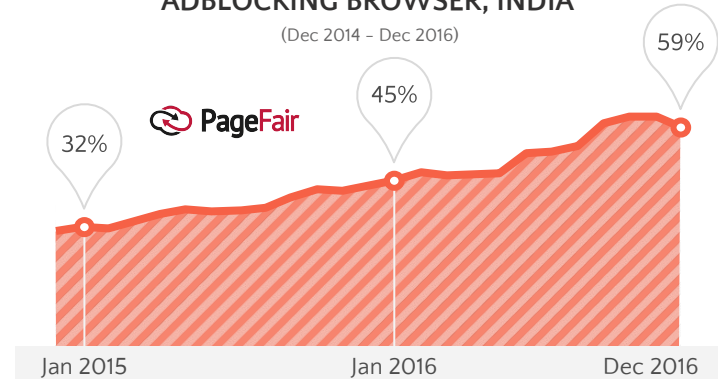
Prediction

Mobile adblock usage is spreading rapidly due to partnerships between adblocking browsers and device manufacturers & distributors. Mass adoption in North America and Europe will continue organically, but **may accelerate unexpectedly if manufacturers or distributors close deals to pre-configure adblock software.**



% OF SMARTPHONES USING AN ADBLOCKING BROWSER, INDIA

(Dec 2014 - Dec 2016)



Adblock user demographics

The demographics of adblock users have broadened.

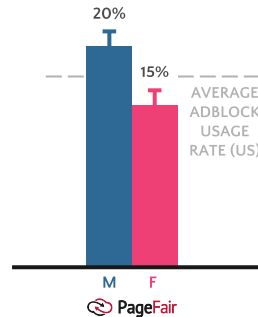
Key findings

- Men are **34% more likely** than women to use adblock software on desktop and laptop computers.
- Suburban and urban internet users are **17% more likely** to use desktop adblock software than those in rural areas.

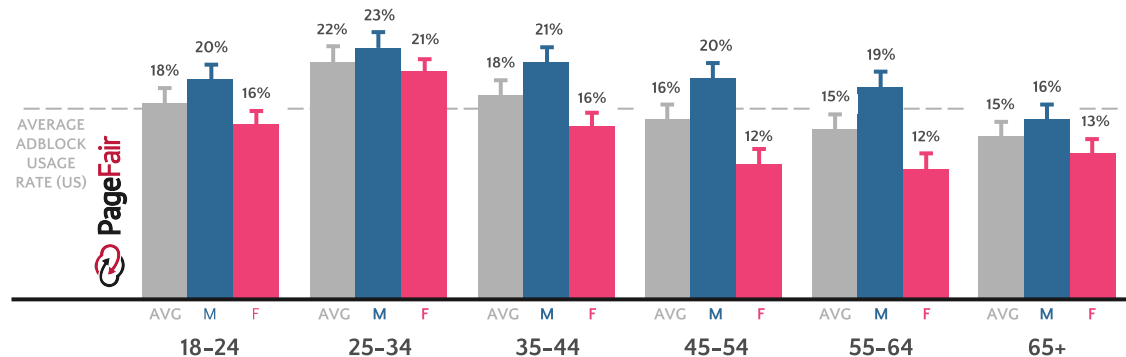
Analysis

Previous analyses by different organizations showed significantly higher rates of adblock usage among young males. These survey results now indicate that adblock usage demographics are either broader than previously anticipated, or that adblock usage has become more mainstream.

ADBLOCK USER DEMOGRAPHICS (US)



ADBLOCK USER DEMOGRAPHICS (US)



In November 2016, PageFair surveyed 4,626 internet users in the United States of America. They were screened to specifically find adblock software users. The following pages focus on the results from this survey.

How adblock grows

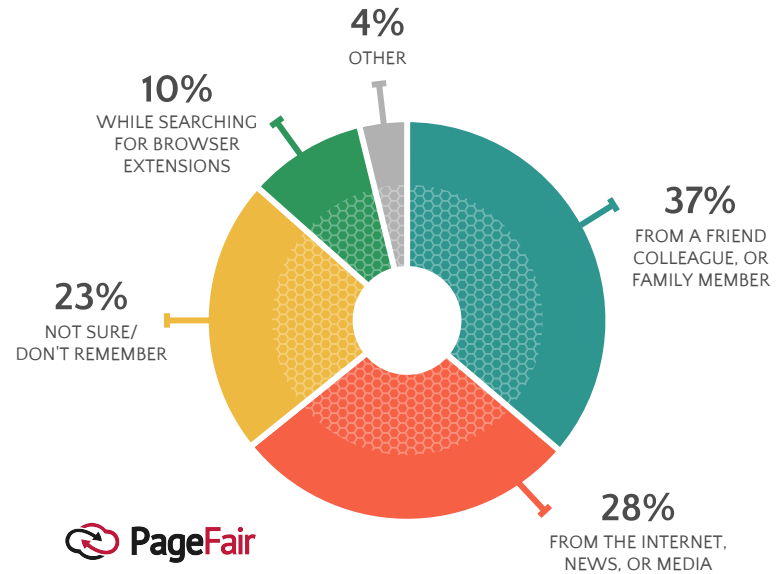
Word of mouth and media attention contribute most to awareness of adblock software.

Key findings

- 37% of adblock users surveyed learned about the software from a friend, colleague, or family member. An additional 28% learned about adblock software from the internet, news, or media.
- Men learned about adblock from the internet, news, or media **twice as frequently** as did women.
- The most common way that women learned about adblock software was **from a family member**.

Analysis

In 2015 and 2016, adblock was one of the most hotly covered topics in the digital media industry, and was identified as a global internet trend in the [2016 Kleiner Perkins Internet Trends Report](#).



HOW ADBLOCK USERS
LEARNED ABOUT ADBLOCK

1. From a friend, colleague, or family member
2. From the internet, news, or media
3. Not sure/Don't remember
4. While searching for browser extensions



Adblock user motivations

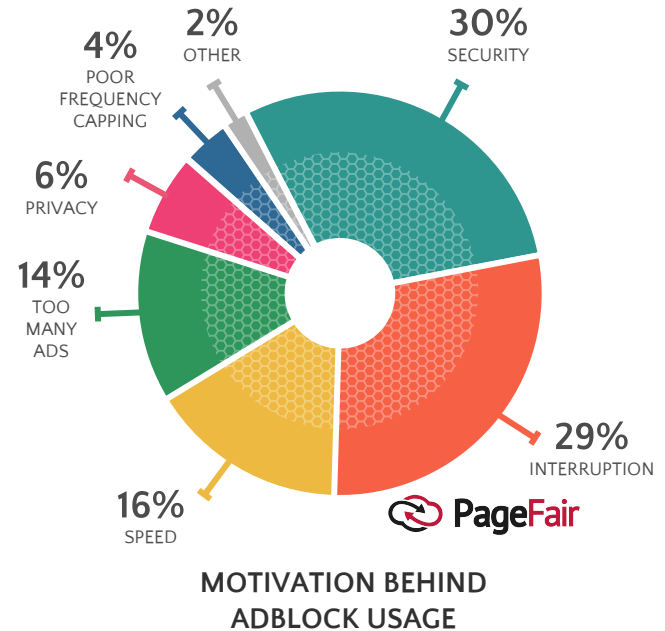
People use adblock for many, diverse reasons.

Key findings

- **Interruptive** ad formats and **virus/malware concerns** were the leading reasons given for adblock usage.
- **38%** more women than men indicated concerns about viruses and malware as their main motivation.
- **14%** more men than women stated that interruption was their top concern.
- Over **70%** of users chose more than one reason as "most important" in their choice to use adblock software.
- Outside of security and interruption, user motivation did not vary significantly by demographic segment.
- While privacy was a **top concern for early adopters of adblock software**, it is less so for a mainstream audience.

Conclusion

Adblock usage is driven by specific problems with the delivery of online advertising, and is not a rejection of digital advertising itself.



1. Exposure to viruses and malware
2. Interruption
3. Slow website loading time
4. Too many ads on webpages
5. Privacy and tracking by unknown parties



Verdict on “adblock walls”

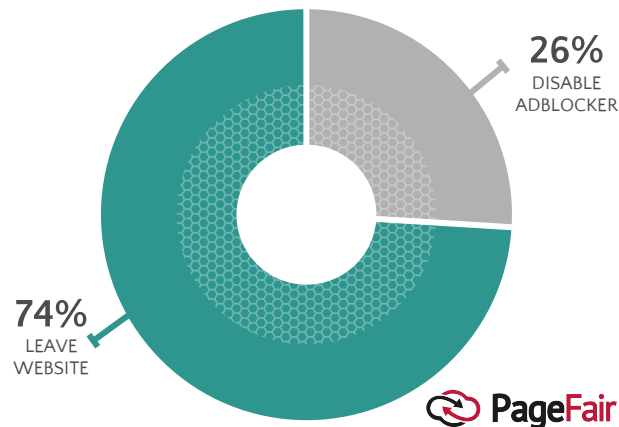
An “adblock wall” bars adblock users until they disable their adblocker on the website.

Key findings

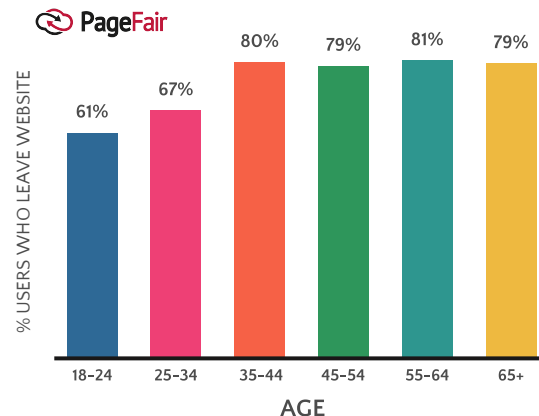
- 90% of adblock users surveyed have encountered an adblock wall.
- 74% of these users say that they leave websites when they encounter such an adblock wall.
- When faced with an adblock wall, older internet users and men are more likely to leave than perform the steps required to disable their adblocker.

Verdict

Adblock walls are ineffective at motivating most adblock users to disable their adblock software, even temporarily. Unless the website in question has **valued content that cannot be obtained elsewhere**, an adblock wall is likely to be ineffective at combatting adblock usage at any significant rate.



% USERS WHO LEAVE WEBSITES WHEN FACED WITH AN "ADBLOCK WALL"



Polarized attitudes toward ad formats

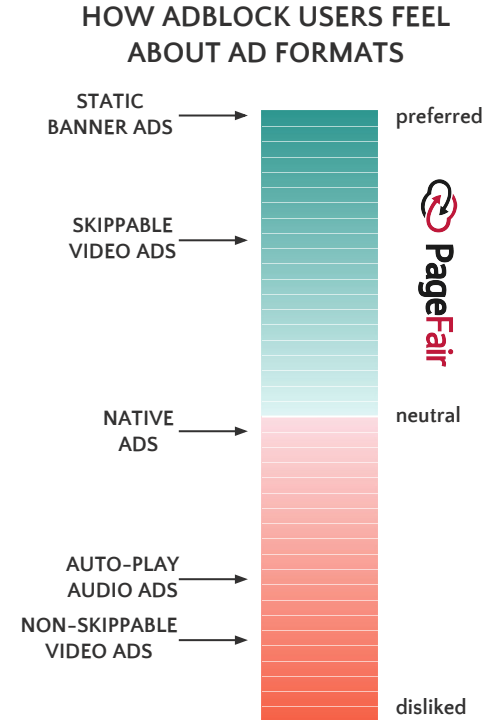
Although adblock users strongly reject some ad formats, they express a significant preference for others.

Key findings

- 77% of adblock users surveyed indicated that they found some ad format to be permissible.
- 52% of these adblock users expressed a preference for static banner ads, while 35% prefer skippable video ads.
- 31% of adblock users surveyed disliked non-skippable video ads most, while 23% disliked auto-play audio ads most.

Conclusion

Interruptive ad formats are the primary cause of user frustration, while **non-interruptive formats**, such as **static banner ads**, are broadly accepted.



Respondents selected their most preferred and disliked ad formats. Each format's score was incremented for each preferred vote and decremented for each disliked vote, thus producing an overall score for that ad format.

Adblock users are more educated

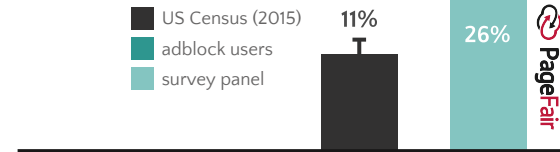
45 in 100 American adblock users surveyed have a bachelor's degree or higher.

Key findings

- Among 18–24 year olds, bachelor's degree attainment was **35%** among adblock users surveyed, versus **11%** according to the US Census (and 26% among the survey pool).
- Across all age groups, bachelor's degree attainment was **45%** among adblock users surveyed, versus **30%** according to the US Census (and 40% among the survey pool).

Adblock users in the US are **1.5x** as likely to have a bachelor's degree than the average American adult, increasing to **3x** as likely among 18–24 year olds. Pronounced adblock usage among college-age respondents points to campuses as a major vector for adblock adoption.

BACHELOR'S DEGREE ATTAINMENT OF 18–24 YEAR OLDS IN THE UNITED STATES



ABOUT PAGEFAIR

PageFair works with web publishers to build revenue on the *blocked web*. The company's ad serving technology displays safe and respectful ads in a way that adblock software is unable to circumvent.

PageFair's free analytics service is used by thousands of publishers, representing **60 billion page views** per month. PageFair is the leading global authority on adblock, and has published the most widely-cited reports on the topic over the last four years.

PageFair also works with global stakeholders, including publishers, consumer groups, advertisers, agencies, and browsers, to develop sustainable, pro-consumer approaches to the blocked web.

Find out more at pagefair.com and follow [@pagefair](https://twitter.com/pagefair) or [subscribe](#) to *PageFair Insider* to receive selected industry notes on developments concerning web sustainability and the blocked web.

Further reading

PageFair Insider

Industry leaders around the world subscribe to *PageFair Insider* to receive essential data, publisher strategies, and regulatory briefs in their inbox. You can join them by [subscribing here](#).

Data: 2017 Adblock Explorer

PageFair provides an interactive map showing adblock figures, month by month, and across the globe. It can be accessed at pagefair.com/2017adblockexplorer.

Previous reports from PageFair

PageFair has been publishing industry reports about adblock since 2013. These reporters are used by industry leaders and the media to understand the emerging landscape of adblock usage. Previous reports in this series are available at pagefair.com/intel.

PageFair Blog

To keep abreast of adblock trends, opinions, and data, visit pagefair.com/blog.

PAGEFAIR INSIDER



Methodology & references

1. Monthly devices using adblock software on desktop/laptop computers globally and by country were calculated by combining a number of sources:
 - a. The number of downloads from Easylist and its supplementary international blocklists between Apr 14, 2009, and Dec 30, 2016, were extracted.
 - b. The frequency at which updates of adblock extensions were downloaded from these blocklists changed several times during the period. These changes were retrieved from the Easylist version control system, and the changes to the update interval were used to normalize the download data.
 - c. Historical daily and weekly active user counts from the Chrome and Firefox extension marketplaces were obtained for Adblock Plus.
 - d. The daily and weekly active user counts were normalized into Monthly Active Installs.
 - e. The blocklist web analytics data also provided download counts by adblock extension. The ratio of these downloads to *Adblock Plus* Monthly Active Installs was then used to estimate the Monthly Active Installs of all other major adblock extensions.
 - f. The historical information on the Monthly Active Installs for each major adblock extension was combined to produce a historical growth chart.
 - g. The ratio of blocklist downloads to Monthly Active Installs was combined with the number of blocklist downloads per-country to estimate the number of adblock desktop installations in each country.
2. Monthly devices using adblock software on smartphones globally, by country, and by region were calculated by combining a number of sources:
 - a. The estimated number of smartphone users worldwide, by region, and by country was taken from eMarketer's smartphone estimates for 2014, 2015, and 2016 (source: [eMarketer](#)), except Pakistan. The number of Pakistani smartphone users was estimated from July 2015–December 2016 using data from The Express Tribune, not eMarketer (source: [The Express Tribune](#)). For both data sets, linear monthly smartphone growth was assumed and the number of smartphone users per month was adjusted at a constant rate between 2014 and 2016.
 - b. The worldwide number of smartphone users for that month, adjusted by month was calculated using the same methodology as described above.
 - c. The monthly percentage of worldwide mobile browser traffic from UC Browser (source: [StatCounter](#)) was adjusted by -27% between Dec 2014 and June 2016 to account for a reporting error from StatCounter. From July 2016 to Dec 2016 the unadjusted percentage provided by StatCounter was used, as the reporting error was fixed.
 - d. The observed relationship between the monthly cumulative average downloads of UC Browser in all of its forms and the monthly cumulative average downloads of all adblocking browsers was calculated across Priori Data's markets, beginning in December 2014 and up to and including March 2016 (source: [Priori Data](#)). The percentage from March 2016 was applied to the subsequent months.

Methodology & references (cont.)

3. The monthly % of traffic coming from desktop web usage in the United States was used from Jan 2014 to Dec 2016 (source: [StatCounter](#)).
4. In the “Index of adblock penetration by country,”
 - a. the “desktop” adblock penetration rate by country, region, and worldwide was determined by looking at the number of monthly installs of adblock software on desktop/laptop devices in that country relative to its internet population (source: [Internet Live Stats](#)) in Dec 2016.
 - b. the “mobile” adblock penetration rate by country, region, and worldwide was determined by looking at the number of smartphones using adblocking browsers in that country relative to its internet population (source: [Internet Live Stats](#)) in Dec 2016.
 - c. “overall” national and regional adblock penetration percentage figures use whichever figure is the higher of each country’s desktop and mobile blocking rates – where both are available. This cautious approach avoids duplication, although there is a risk of undercounting. This figure is used for shading in the global map.
 - d. the name for and regional grouping of countries follows eMarketer’s regional grouping of countries (source: [eMarketer](#)).
5. The 2016 Desktop/Laptop Adblock survey was conducted by PageFair through Google Consumer Surveys on Nov 3, 2016, and is based on 4,626 online responses in the United States.
 - a. Sample: People from the national adult internet population who answered both affirmatively to the question, “Do you currently use adblocking software on your desktop or laptop computer?” Adblocking is defined as using a browser extension to prevent ads from displaying in web pages and who answered,” and negatively to the question, “Is the name of the adblocking extension that you currently use missing from the following list: Adblock, Adblock Plus, uBlock Origin, uBlock, Adblock Pro?”
 - b. The average desktop adblocking rate of 17% in the United States was taken from PageFair’s empirical data set for Nov 2016, as described in point 1 of this methodology (source: PageFair).
 - c. Although empirical measurements show an adblock rate of 17% for the US, the survey produced a claimed usage rate of 22%. Historically, survey respondents have shown a tendency to overstate their usage of adblock software. To present a more accurate depiction, each age and gender segment was normalized to account for this error.
 - d. The 2015 US Census was used to determine the population average by age bracket, who has attained a bachelor’s degree or higher (source: [U.S. Census Bureau, Current Population Survey, 2015 Annual Social and Economic Supplement](#)). A “bachelor’s degree or higher” includes respondents with a “bachelor’s degree, master’s degree, professional degree, or doctoral degree.
 - e. A separate survey of 1,010 internet users was conducted by PageFair through Google Consumer Surveys on Dec 7, 2016. This survey was used to gauge the average educational attainment of the survey panel.
7. Adblock was identified as a top internet trend in 2016 (source: slides 46 and 47, [KPCB 2016 Internet Trends Report](#)).

Acknowledgements

PageFair Team

Special thanks to Matthew Cortland, Dr. Johnny Ryan, and Andrew Shaw, whose hard work in the analysis and production of this report made it possible. Thanks to all our colleagues for their support and thoughtful feedback.

Dr. Grant Blank

Thanks to Dr. Grant Blank, Survey Research Fellow of the Oxford Internet Institute, who advised on survey design for the 2016 US Desktop Adblock Survey.

Priori Data Team

Thanks to the excellent team at Priori Data, who provided us with proprietary per-market data about mobile app downloads.

eMarketer

Thank you to eMarketer, who provided us with invaluable estimates on the number of smartphone users in countries across the world.

StatCounter

Thank you to the StatCounter team, who generously make a wealth of internet analytics available for free, and who also gave their time to help us correctly understand their methodologies and interpret their data.