Adblocking is threatening the business model of online publishers. In this report we present new data demonstrating that adblock is being rapidly adopted by consumers, and is becoming mainstream. Based on measurements taken from hundreds of websites over 11 months, we show that up to 30% of web visitors are blocking ads, and that the number of adblocking users is growing at an astonishing 43% per year.
What is Adblocking?

Adblocking is the automatic removal of most forms of advertising from web pages, including banner ads, text ads, sponsored links, sponsored stories and video pre-roll ads. Although this can improve the short-term user experience of a website, it directly damages the business model that popular websites depend upon for their continued existence.

Users typically enable adblocking by installing an appropriate web browser extension. Suitable extensions exist on all major web browsers and are fast and painless to install. Some of these extensions are open-source, while others are commercial projects. The most popular extension is Adblock Plus, which became available in 2002, and is now the most downloaded browser extension of all time. At the time of writing, Adblock Plus or an equivalent solution is the most popular extension on the Firefox, Chrome, Safari and Opera browsers. Adblocking is now also available on Android and iOS devices, in the form of a browser extension, or a specialized mobile browser.

In some cases, adblocking is achieved at the network level. For example, in January 2013, France’s second largest ISP, Free, deployed an update that automatically removed all Google Adsense advertising for their subscribers.

As will be revealed in this report, adblocking is more prevalent than most publishers estimate, and is growing at an alarming rate.

About This Report

PageFair is a free service that allows website owners to measure how many of their visitors block ads, and attempt to recover the associated lost revenue. It has been live since September 2012, and is used by hundreds of websites globally. We have collected anonymous data on adblocking behavior across our client sites over the last 11 months and we are now able to reveal new information about the size and growth of adblocking.

If you would like more information about PageFair, please visit us at www.pagefair.com, email us at info@pagefair.com or follow us on Twitter @PageFair.
Part 1: The Extent of Adblocking

We have found that website publishers tend to significantly underestimate the effect of adblocking on their businesses. Most frequently, they assume that only a small, single-digit percentage of their visitors block ads. Our results show that in nearly all cases, this is wrong.

The average adblocking rate on 220 websites for which we have collected a significant amount of data was **22.7%**. Different sites show considerable variance in ad blocking rates, ranging from 1.5% to 65% with a standard deviation of 12%.

**Average Adblocking Rate:**

**22.7%**

This high adblocking rate translates directly into revenue loss for advertising-funded web businesses. One typical PageFair client site suffers from 25% adblocking, costing them nearly $500,000 per year. This scale of revenue loss can be fatal. Indeed, several sites that formerly reported data to PageFair are no longer online.

In the sections below, we break down this adblocking rate by both site category and browser.
The chart depicts the average adblocking rate suffered by websites in various categories. Our findings show that approximately 16% of visitors to general interest websites - such as sports, news, and business - are blocking ads.

At the low end of the spectrum lie sites with little technical content, for example those focused on local interest, finance and travel. These sites have about half the level of adblocking suffered by general interest sites, equating to about 8% revenue loss.

The worst affected sites are those that target more technically savvy audiences, such as games and technology sites. More than 25% of the visitors to these sites block advertising, with some sites experiencing rates in excess of 50%.

Our interpretation of this data is that the severity of adblocking on a given site is positively correlated to the technical ability of its audience. Technical sites suffer nearly four times as badly as non-technical sites, with a steady progression in adblocking from travel and finance sites up to games and technology.
The chart depicts the percentage of adblocked pageviews recorded for each of the major browsers. 36.7% of Firefox users are blocking ads, with Chrome users close behind at 30.4%, followed by Opera at 20%.

This data supports the conclusion that technical users are more likely to block ads. System-default browsers such as Safari and Internet Explorer have the lowest adblocking rates, while browsers that require explicit installation (Firefox, Chrome and Opera) have the highest. It is also worth noting that the open-source browsers have large and easy-to-use extension marketplaces. Even the least technical user is more likely to install an extension in Chrome than in Internet Explorer.

These numbers should be put in the context of the general trends in usage of the different browsers. According to Statcounter\(^1\), Chrome has continued to capture an additional 10% of the browser market each year, and is now the most popular browser with over 40% market share. It is primarily capturing this market share at the expense of Internet Explorer. Chrome’s meteoric rise may thus lead former Internet Explorer users to install adblock for

\(^1\)http://gs.statcounter.com/
the first time.

These macro trends in the browser landscape may also explain why people commonly underestimate the size and growth of adblocking. Just 5 years ago, Internet Explorer commanded nearly 70% market share. With Internet Explorer losing 10% of the browser market with each passing year, old assumptions about the popularity of adblock are no longer correct.

Based *only* on current trends in the browser market, we estimate that adblock will increase in popularity by nearly 50% over the next 5 years. The table below extrapolates the future adblocking rate for each browser, based its 2013 rate and its projected market share in each year (based on performance from 2008 to 2013 as reported by Statscounter). The table shows that the base blocking rate of approximately 20% in 2013 rises to nearly 30% by 2018.

As we will see in Part 2, this is a very conservative estimate.

<table>
<thead>
<tr>
<th>Browser</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Explorer</td>
<td>0.25%</td>
<td>0.15%</td>
<td>0.05%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Chrome</td>
<td>13.10%</td>
<td>16.14%</td>
<td>19.18%</td>
<td>22.22%</td>
<td>25.26%</td>
<td>28.30%</td>
</tr>
<tr>
<td>Firefox</td>
<td>7.37%</td>
<td>5.91%</td>
<td>4.44%</td>
<td>2.97%</td>
<td>1.50%</td>
<td>0.03%</td>
</tr>
<tr>
<td>Safari</td>
<td>0.68%</td>
<td>0.84%</td>
<td>1.00%</td>
<td>1.16%</td>
<td>1.32%</td>
<td>1.48%</td>
</tr>
<tr>
<td>Opera</td>
<td>0.02%</td>
<td>0.02%</td>
<td>0.02%</td>
<td>0.02%</td>
<td>0.02%</td>
<td>0.02%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>21.43%</strong></td>
<td><strong>23.06%</strong></td>
<td><strong>24.69%</strong></td>
<td><strong>26.38%</strong></td>
<td><strong>28.11%</strong></td>
<td><strong>29.84%</strong></td>
</tr>
</tbody>
</table>
Adblocking has also made its way to mobile devices. The chart above shows the percentage of users of different mobile browsers that are blocking ads. Mobile Firefox is in the lead, with an average blockrate of 12.4%. This is explained by Mobile Firefox’s native support of extensions, which other mobile browsers do not yet support. As with the desktop version, the most popular extension for Mobile Firefox is Adblock Plus, which is easy and quick to install.

Mobile ads can also be blocked by installing a special adblocking browser from the Play Store / App Store. These are represented by the 6% block rate of the “Mobile Other” category on the chart. The low block rates shown for other browsers are explained by network-level adblocking, for example, the adblocking performed by the French ISP, Free.

We expect adblocking on mobile devices to continue to rise in popularity. Usability and awareness are increasing, while screen real estate continues to be scarce. Mainstream popularity is currently held back by the need to install a suitable non-default browser. As soon as the default browsers add support for extensions, this situation will change.
Part 2: The Growth of Adblock

To measure the growth of adblocking, we restricted the study to websites for which we had especially large amount amounts of continuous data. This left data from 38 websites, all of which had reported data for at least 4 consecutive months.

Of the 38 sites that met our criteria, adblocking grew by an average 3.0% of its previous value every month. For example, if 10% of a website’s visitors blocked ads in a given month, 10.3% would block ads in the following month.

A 3.0% growth rate compounded over 12 months yields a projected average growth rate of 43% per year. For example, a website with an adblocking rate of 10% should expect the situation to worsen to over 14% the following year.

As shown in the table below, if this rate continues unabated, adblock penetration will reach 100% by 2018. The current growth of adblock is probably constrained by its availability on different platforms and the technical ability of web users. However, as availability on mobile platforms increases, usability improves and web users become more sophisticated, this growth rate may become even more extreme.

<table>
<thead>
<tr>
<th>Year</th>
<th>Adblocking Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>22.70%</td>
</tr>
<tr>
<td>2014</td>
<td>32.46%</td>
</tr>
<tr>
<td>2015</td>
<td>46.42%</td>
</tr>
<tr>
<td>2016</td>
<td>66.38%</td>
</tr>
<tr>
<td>2017</td>
<td>94.92%</td>
</tr>
<tr>
<td>2018</td>
<td>100.00%</td>
</tr>
</tbody>
</table>
This surprisingly high growth rate is supported by additional sources. Data from Google Trends shows search interest volume in the phrase “adblock” more than doubled between July 2012 and July 2013\(^2\).

![Adblock Plus download trend chart](source: Google Trends)

Adblock Plus is the most downloaded browser extension of all time, and is the most popular extension on both Chrome and Firefox. According to Mozilla blog\(^3\) and Adblock Plus blog\(^4\), downloads grew from 100 million downloads on Firefox in November 2011 and to 200 million downloads 29 months later in April 2013. This indicates a compound yearly growth rate on of approximately 35%. This number reflects growth on Firefox alone, and does not allow for the massive surge in Chrome popularity during the same period.

The growth rate of 43% may not be fully representative of the global rate, because it was measured from a sample consisting of websites that have sought out the PageFair service. On the other hand, it could be argued that sites that have lower blockrates have room for greater growth. For example, two local-interest sites were each observed to have monthly adblock growth of over 7%, equivalent to a projected annual increase of 125% each year. One of these sites can expect its adblocking audience to grow from 10% this year to 22.5% next year (10% + 10% x 125%).

### What Can Publishers Do?

Adblocking is now mainstream. Consumers are choosing to reject advertisements, while publishers are losing revenue and going out of business. Both large and independent content creators depend on the advertising business model for their existence, and they are under threat. This is not good for the future of the web.

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\(^2\) [http://www.google.com/trends/explore?q=adblock#q=adblock&cmpt=q](http://www.google.com/trends/explore?q=adblock#q=adblock&cmpt=q)


\(^4\) [https://adblockplus.org/blog/200-million-firefox-downloads](https://adblockplus.org/blog/200-million-firefox-downloads)
The number one reason consumers install adblock is because of distracting animations and sounds\(^5\). Websites that display intrusive advertising drive consumers to seek out an adblocking solution, thus causing irreversible collateral damage to all other ad-supported sites. Sites that react to adblocking by displaying increasingly aggressive advertising to their remaining non-blocking users therefore help push the online advertising industry into a dangerous downward spiral.

The vast majority of web users want content to remain free\(^6\). Unless a freemium business model for web content becomes successful, publishers must find a way to make advertising work. One approach is to simultaneously respect your visitors while educating them about how you pay the bills. Respect them by not intruding on their attention with interstitials, animations or sounds, and by ensuring that advertising is as appropriate and relevant as possible. Educate them by discussing the problem in articles and on Twitter. You can also display targeted appeals to adblock users to ask them to do their part by whitelisting your site (a service we offer at PageFair).

You can find out how many of your visitors are blocking ads by signing up to PageFair for free at www.pagefair.com.

To stay up to date on adblocking data, trends and developments, make sure to follow us on Twitter @pagefair.

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\(^5\) [https://adblockplus.org/blog/adblock-plus-user-survey-results-part-2](https://adblockplus.org/blog/adblock-plus-user-survey-results-part-2)

A Note on the Data Collection Method

The information revealed in this report is based on data collected from the websites that use PageFair. Every time a user visits one of our client sites, an anonymous data point is sent to the PageFair backend specifying whether or not adblocking is enabled. We respect end-user privacy, and do not record user-specific data or track users in any way.

We have recorded this data over many months from hundreds of websites (from small blogs to websites with hundreds of millions of page views per month).

We have taken care to discard data that we felt was not statistically significant, for example, adblocking rates measured on sites with low traffic. In measuring the growth of adblocking we were more stringent, and considered data only from those sites from which we had at least 4 consecutive months of data. PageFair helps websites to design customized appeals that are shown to adblock users. To prevent these appeals distorting the results we also eliminated data from any site that ever utilized this feature.

In March 2013 PageFair was temporarily blocked by Adblock Plus, leading to skewed data for most of that month. To account for this, we have disregarded all data for the month of March. Subsequent to March, PageFair was blocked by the “EasyPrivacy” list, an optional feature of adblock that disables communication with analytics systems. According to a blog post on adblockplus.org in August 2011, this feature is used by approximately 4% of Adblock Plus users. Therefore, our measurements since April 2013 are underestimated by about 4% (e.g., a measured block rate of 10.00% would correspond to a real block rate of 10.04%).

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7 See https://easylist.adblockplus.org/blog/2011/09/01/easylist-statistics:-august-2011