Determining a Better Ads Standard Based on User Experience Data

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Abstract:

In this paper we lay out a process for separating ad experiences that are preferred by most users from those that are not preferred. To ascertain ad preference, we harness the power of a large-scale (n >24,000 participant) unbiased study in which participants encounter multiple ad experiences before they provide feedback.

This exercise provides a natural "line" that separates better ad experiences from less preferred experiences. The output of this effort is a repeatable and extensible process for defining a set of ad experiences that participants find unacceptable, a process that can be leveraged by publishers and advertisers to make their websites and creatives better for consumers.

Introduction:

Online publishing is at a crossroads. Ad block rates are increasing. In panels, consumers regularly describe their frustration with at least some online ad experiences, and the sentiment has driven memes in popular television shows and comics (Inman, 2016; Parker, 2015). On the other hand, good user experiences help publishers maximize reach by increasing the likelihood that a user will revisit their site or recommend it to others. Users also have a choice in content providers -- publishers who keep an eye on user satisfaction may see an increase in brand value or performance (Shellhammer, 2016).

The publishing and advertising industries have not been blind to this change in user attitude. Publishers run articles critical of advertising practices and technologies (Maheshwari, 2016), and some have discontinued the use of the formats their users have found the most annoying (Lu, 2016).

These reductions need not hurt the bottom line; there are already clear examples where better user experiences generate increased session lengths and revenue for publishers. One such example is improving page load speeds. Publishers who sped up their initial page load increased the number of pages read per session and decreased bounce rates (Shellhammer, 2016).

As we will show in this paper, we can directly link stated intent to revisit a site or to refer a friend to a site to better ad experiences seen on the site. All of these effects confer

benefits to a publisher site beyond the current visit, and need to be considered as long term investments into the brand.

An ecosystem-wide benefit can also be obtained from better ad experiences; as stated by end users, better ad experiences significantly decrease the likelihood that they will install an ad blocker. While it is important to note that this effect is an after the fact attribution (Teads, 2016), or, as in this work, a statement of future intent, ad blocking is a blunt tool used by consumers against a problem limited to only some publishers. Developing an industry line helps address the externality of ad experiences on one site impacting others. Publishers who prioritize better ad experiences in order to improve their same-session and brand metrics, as discussed above, also provide an ecosystem-wide benefit to themselves and other publishers. Alternatively, publishers with poor ad experiences "poison the well" for publishers with good ad experiences.

An important note - the phrase "ad experiences" is used because it can be inclusive of elements as varied as single ads, different publisher formats, different advertiser formats, multiple of the aforementioned single ads per page (e.g. multiple static banners), or combinations of multiple of these elements on a single page.

As a first step towards developing Better Ads Standards, the Coalition has presented two papers from the Ad Experience Research Program which describe a methodology that allows the ranking of ad experiences relative to others (Ad Experience Research Group, 2016, Experimental Methodology to Rank N experiences) (Ad Experience Research Group, 2016, Experimental Methodology to Measure Consumer Perceptions). Using a population-representative pool of tens of thousands of online study participants, we exposed each participant to several ad experiences composed of a high-quality (but unbranded) publisher content and ads. Each participant was also exposed to an article without ads as a control. After each exposure, we asked the participant a set of questions asking them to rate the experience in terms of major drivers of online experiences (e.g., annoyance, distraction, satisfaction, creepiness), as determined by previous studies. At the end of the set, the participants are asked to rate the experiences relative to each other. The output is a single stack rank of experiences, so that an online advertiser, publisher, network, or user can determine which ad experience the average online user would prefer.

Even with the above stack rank, determining which ads are acceptable user experiences is not an easy task. This paper first presents a method for determining which ad experiences are not acceptable by leveraging existing user preference research and a new confirmation methodology. It then shows that a list of unacceptable ad experiences that should be avoided is the most efficient way for publishers and advertisers to make the strongest user experience gains. Finally, the paper shows that an extensible study methodology based on the prior stack rank research and the new confirmatory study is a rapid and cost-effective way to continuously test ad experiences and improve user experiences.

Guiding principles of determining a line:

We propose that the standard of unacceptable ads experiences must:

Define what should not be done instead of what can be done to allow for innovation

There are many players in the ecosystem, many of them small players looking to experiment and innovate. Instead of forcing each to have ad experiences tested to see where they fall in the standard before they can learn from the market, the Coalition for Better Ads should identify ad experiences that are growing in popularity and test them.

Be clear and accessible by the ecosystem

A standard where it is not possible to tell if one's ad experiences are in compliance is not useful to advertisers looking for the most user-respectful inventory or publishers looking to maximize user benefit. As such, the standard must be clear and interpretable without subjective judgements.

Be open to including multiple ways to determine that an experience not preferred by consumers

As an example, the methods laid out in this paper can be used to assess publisher and advertiser ad formats. A similar process of testing ads experiences with human participants could not be ethically used to measure malware or spyware. As a result, these experiences would need to be handled by another method.

We propose that the method for determining the standard of unacceptable ads experiences must:

Be auditable and replicable

The methodology that defines unacceptable ad experiences must be open and replicable to ensure that all stakeholders in the ecosystem (users, publishers, advertisers, and networks) have trust in the standard. The body responsible for the methodology must be able to repeat experiments to confirm the results, and must be able to share the necessary data to create transparency.

Be hard to distort

In order to ensure that the standard is above reproach, the methodology must contain steps to prevent gaming. This includes having some controls over the participant pool.

Be extensible to new experiences

Our industry is known for innovation: we can be sure that new ad experiences will be created constantly. The methodology must be able to measure these ad experiences as they are developed.

Produce stable results

While consumer preferences may shift with time, it is key to ensure that the standard does not change for stochastic reasons. As such, ad experiences should only be declared unacceptable when there is enough data collected to be sure.

Leveraging existing data:

Methodology for determining Ad Experience Preferences

One method to test ad experiences has already been published (Ad Experience Research Group, 2016, Experimental Methodology to Rank N experiences). In this study, a sample representative of the US population was asked to read a sequence of articles on a simulated publisher page, most of which included one or more ads. After participants read the article, they were asked to evaluate the overall experience of the page and the ads on several dimensions (e.g., overall satisfaction, predictability, pageload speed, annoyance, distraction, usefulness, trustworthiness, visual appeal, inappropriateness, and creepiness). At the end of the set of questions, participants were also asked to rank the ad experiences they viewed in order of relative preference. Ad preference data from several thousand participants each ranking three ad experiences were then combined in a single stack ranking of all experiences using the Bradley-Terry algorithm (Turner, 2012). Plotting on a log scale and normalizing, we can assign each experience a preference score between 1 and 5, where 1 is the least preferred and 5 is the most preferred.

Figure 1: Ranking of 49 Mobile Web Ad experiences

Figure 2: Ranking of 55 Desktop Web Ad experiences

These stack ranks agree with the results derived from measuring ad experiences across 10 individual experience dimensions. We conducted a Principal Component Analysis (PCA) of the ad experiences using 10 ad experience dimensions and took the two largest components, and found that they explained the stack rank with a R^2 of 0.92 to 0.93. This means that users express preferences in ways we understand well -- such as a product of distraction, and annoyance.

Annoyance and distraction were two of the most correlated features to preference rank, which can be seen in Figure 3 and 4 below -- the strong diagonal line in the graph indicates a strong correlation, as the the experiences are arranged, from top to bottom, from most preferred to least preferred.

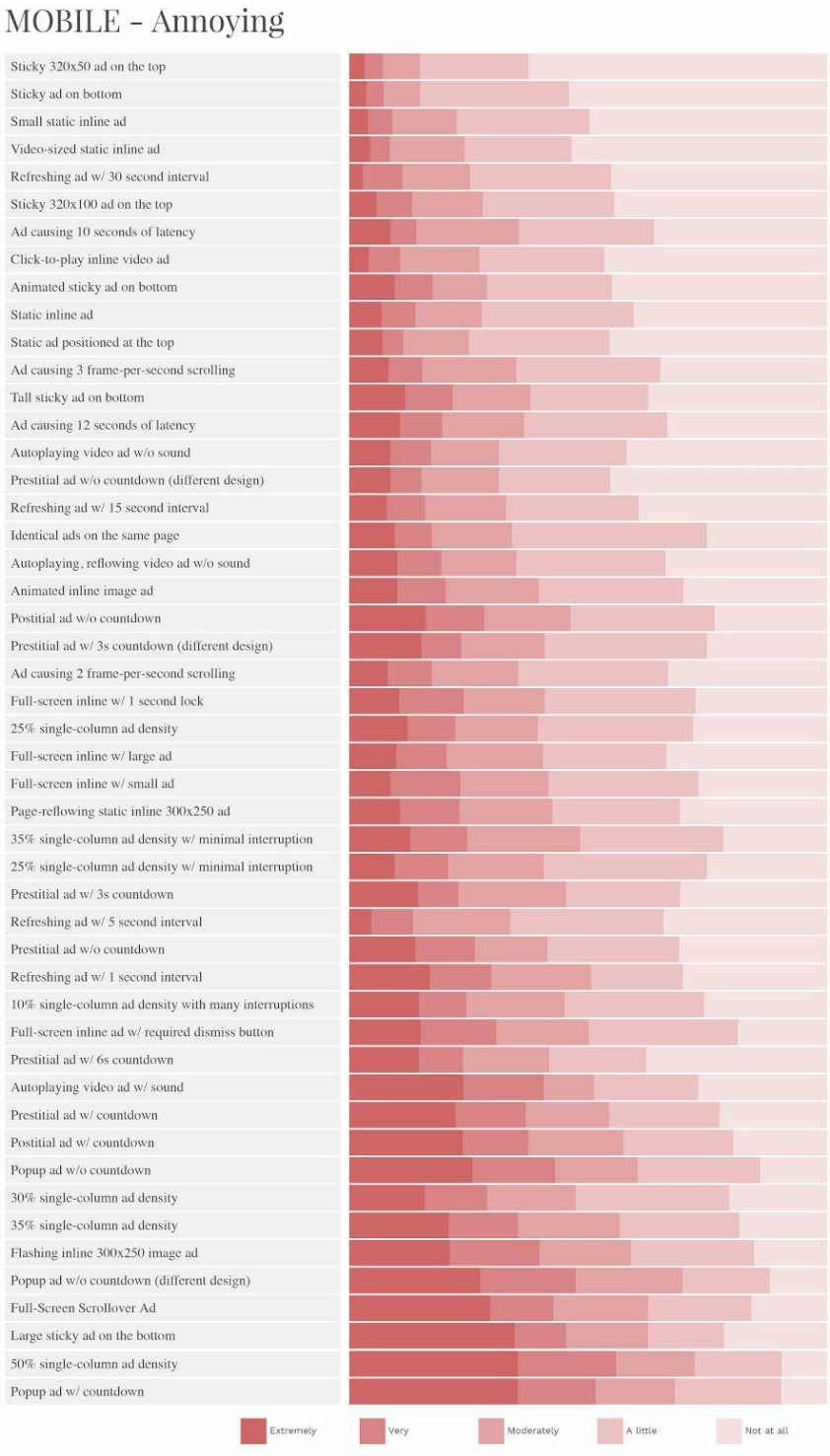

Figure 3: Annoyance Graphs of 49 Mobile Web Ad Experiences, sorted by preference.

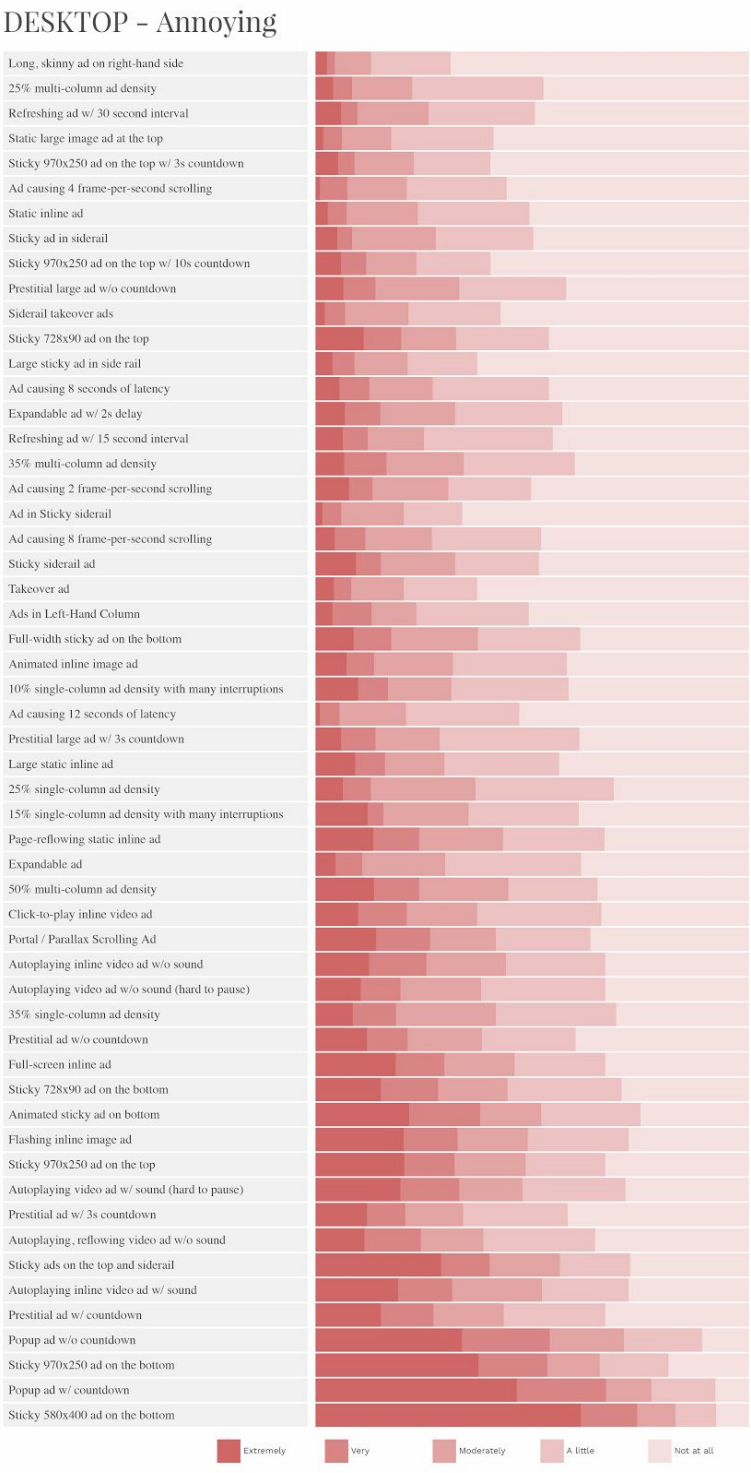

Figure 4: Annoyance Graphs of 55 Desktop Ad Experiences, sorted by preference.

The ad experiences we tested are not limited to publisher formats, like pop-ups, standard 300x250 ads, or adhesive ads. Advertiser creative formats, like video, animated, and flashing ads have also been tested.

It's important to note that the methodology used in this study, in which ad experiences are evaluated through answers to a survey and preference ranking, is *extensible*, meaning that it's possible to combine data sets collected in different experiments and by different groups in a single ad preference continuum. The methodology is also *difficult to distort*, as it uses a well-defined methodology on a controlled set of participants. It also produced detailed and *auditable* data logs and can be replicated. As such, it meets all the conditions set forth above for a methodology.

Organizing ad experiences in a reliable preference stack rank, however, is just the first step. The next step is to define a line that divides acceptable ad experiences (with higher preference ranking and lower annoyance and distraction scores) and non-acceptable ad experiences (with low preference ranking and higher annoyance and distraction scores). The rest of this paper describes the approach we recommend to define the threshold for unacceptable ad experiences.

Proposed line:

Stack ranking provides a strong way to rank ads by relative preference, but it does not provide a single way to decide which ads have strong negative effects on user experience. In this section, we will discuss several methods we investigated for determining where a line could be drawn.

Potential line-drawing options

Clustering based approach

In order to meet the goals described before, the initial proposal was to use k-means or other clustering methods based on the stack rank and annoyance/distraction ratings, or the principal components of those elements, as we could easily determine which ads cluster into a "worse" cluster, compared to other clusters. Clustering essentially forms groups of ads that are more similar to each other than they are to other ads, based on the data provided. Clustering was believed to "automatically" find the least acceptable ads experiences that had the most negative user impact.

We determined that there could be several underlying structures of clusters in the ads space, namely:

- 2 clusters, which would occur if there were a "better" and "worse" ad groups.
- 3 clusters, which would occur with a "better," "intermediate," and "worse" ads groups.
- 4 clusters, with a "better intermediate" and a "worse intermediate" group.

We therefore used 2, 3, or 4 clusters, then used k-means clustering based on the following sets of input dimensions:

- Stack rank only, where we would only use the stack rank as the input to separate the ad experience into 2, 3 or 4 groups
- Top 2 principal components, where we took the components defined by the Principal Component Analysis (PCA) as the inputs to the clustering
- Top 3 principal components, where we took the components defined by the Partial Least Square regression as the inputs to the clustering
- 10 UX metrics, where the ten UX metrics were used as the inputs to the clustering

One unexpected finding was the potential for clusters to change drastically due to the effect that additional user testing has on individual data points, to such an extent that even points that did not change were affected by the movement of clusters. This runs counter to the goal of standard *stability*, as it makes the entire standard subject to stochastic effects. As an example, we tested pop-up ads with more users, and saw that as a result, the points representing pop-up ads became even more separated from other ads. In fact, the pop-up cluster became so separated that the clustering algorithm determined that they were their own cluster. This reduced the number of clusters available for the other ads by one, which led to the others ad clusters changing dramatically. Further investigation showed that the clustering was inherently unstable and was therefore not appropriate for finding the breakpoints between better and other ads.

Using a set boundary with confidence intervals

Upon further investigation, we found that there is an increase in the annoyance and distraction experienced by users for experiences with a preference score below 3.00, as seen in the appropriate graphs in (Ad Experience Research Group, 2016, Experimental Methodology to Rank N experiences). We also noted that approximately 25% of our tested experiences fell below that line, so we decided to test a standard based on the 3.00 line. We would keep the current 1.00 and 5.00 scores static, so as new better and worse ads experiences are tested, they can take on values outside that range. In this way, we can guarantee stability as new ad experiences are added.

In order to run a reliable study with a reasonable number of participants, we recruited 200 participants in each study. Since current study setting is a special case of conjoint studies in marketing research, our sample size is determined by the determination rules in Tang (2006).

Importantly, this approach gives a line that is inherently *stable* as additional data is added, completing the required set of methodological goals. However, it remained to be determined if the resultant standard could have a meaningful impact on user experience, one of the key goals for the standard itself.

Exhibit - list of proposed ads experiences falling beneath a Better Ads standard for mobile and desktop

Definitions and descriptions are available in the appendix

Desktop web ad experiences
Pop-up Ad (with or without countdown)
Auto-playing Video Ad with Sound
Prestitial Ad with Countdown
Large Sticky Ad at the Bottom

Mobile web ad experiences
Pop-up Ad (with or without countdown)
Prestitial Ad (with or without Countdown)
Postitial Ad (with countdown)
Ad Density Higher Than 30% (30% single column; 35% multicolumn; and 50% multicolumn)
Flashing Animated Ad
Auto-playing Video Ad with Sound
Large Sticky Ad
Full Screen Scrollover Ad

Validation study

Our hypothesis is that the standard resulting from the 3.00 line with confidence intervals will create a group of ad experiences that is more likely to cause adblocking install, and less likely to be visited or recommended by users. To test this, we developed a validation study in which we asked a group of participants questions about a subset of ad experiences. While asking people what they would/will do is generally not as accurate as asking preferences, it is the best tool at our disposal to test the standard (Lapierre, 1934; Poon, 2014).

What we did

Participants were recruited from Amazon Mechanical Turk and paid approximately $1.77 for their participation in a single experiment. We only recruited from a single participant source to eliminate repeat participants, and only analyzed data from participants that completed the entire task. We formed one pool of participants to test mobile experiences, and one to test desktop experiences.

Just as in (Ad Experience Research Group, 2016, Experimental Methodology to Measure Consumer Perceptions), the participants were exposed to a control experience (no ad) and the three ad experiences in a random order, where the experience consisted of reading an approximately 400-word article that included an image and was formatted to look like web pages from a newspaper site.

We selected three experiences in desktop and three in mobile. We selected one ad experience that was heavily preferred by participants (anchor ad for mobile, a skinny side ad in desktop), one that was slightly more preferred than the proposed line (inline reflowing ads in desktop and mobile), and one experience that is not at all preferred by participants

(popup for both desktop and mobile). All of these experiences are commonly noticed across the web, and several have been the subjects of other user experience studies.

After each experience, we asked participants a set of questions, including a single reading comprehension question (to ensure they had read the article), questions to determine the likelihood that they would revisit the website, the likelihood they would recommend the website to a friend, and how worthwhile it would be to install an ad blocker due to the ad experience. Each question had a five point Likert scale, allowing the participants to express differing levels of response to the stimuli of the experience. It is important to note that we could not ask ad blocker or acceptability questions for the no ad control experience, as they would have been nonsensical. One thing we hoped to learn from the revisitation and recommendation questions is the percentage of participants who wouldn't respond favorably to the website regardless of the presence of ads by comparing the change of these metrics between the no ad and the most preferred ad experiences.

After collecting data from (N=287 desktop, N=320 mobile) participants from each group, we compiled the data into stacked bar charts and determined the proportion change of the percentage of participants responding most and least favorably to each question, as well as the average score of all respondents.

Results

The participants we sampled were roughly younger than the general US population (majority aged 22-44). Previous studies have shown that different ages of participants led to similar ranks and scores, and we have found the same result in our study (Fig 5).

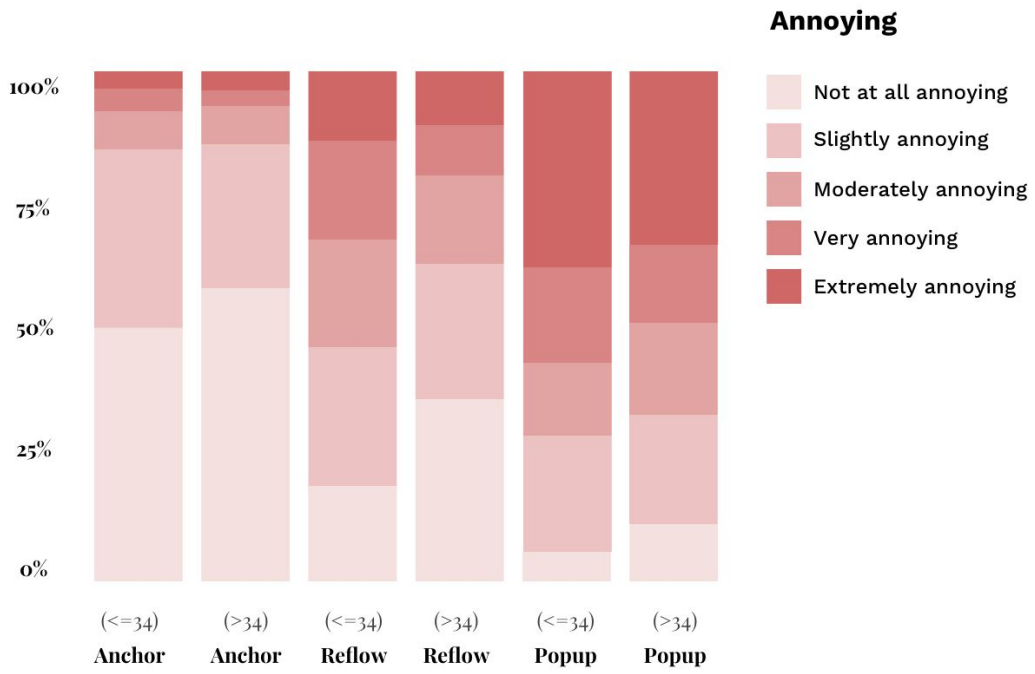

Figure 5: Annoyance scores of participants grouped by age

Ad experience acceptability

In response to the question "How acceptable was the ad on this webpage?", 55% of mobile respondents noted the pop-up was not at all acceptable, whereas the number was 16% for reflow and 11% for anchor. We saw a similar pattern in the desktop ads, where the popup was not at all acceptable to 44%, compared to the other experiences.

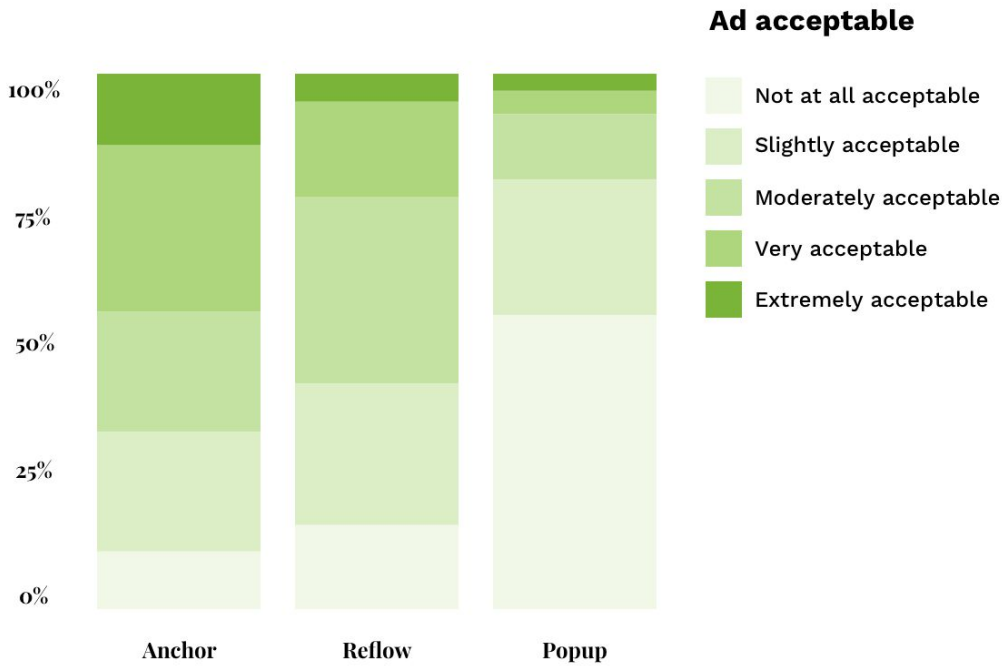

Figure 6: Acceptability of 3 mobile ad experiences as rated by participants

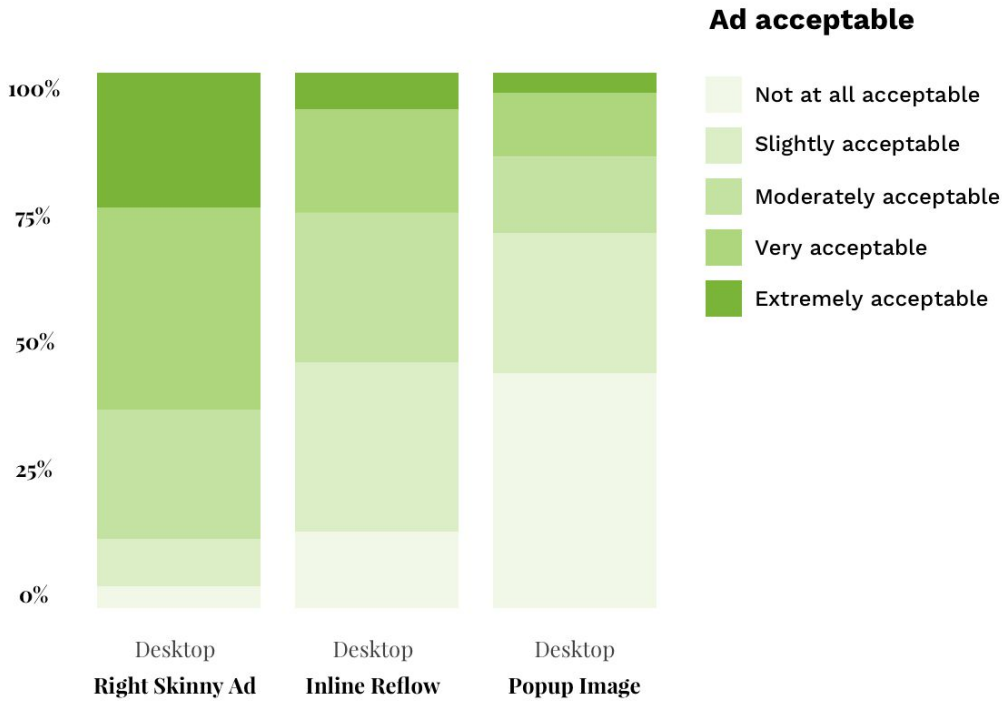

Figure 7: Acceptability of 3 desktop ad experiences as rated by participants

Likelihood of revisiting the page

In response to the question "How likely would you be to visit a webpage like this in the next 30 days?", 16.5% of respondents in the control group noted they were not at all likely to revisit the page, giving a no ad control baseline of unfavorability of the page. In Mobile respondents, anchor led to a net increase of 5% in this metric, while reflow led to a 12.5% increase. The least favorable ad experience led to a 37.5% increase in the metric, more than triple the level of the control. Altogether, more than half of respondents stated they were "not at all likely" to revisit the page with the pop-up. The result was less clear in desktop, where the reflow was roughly between the popup and the more favorable skinny ad.

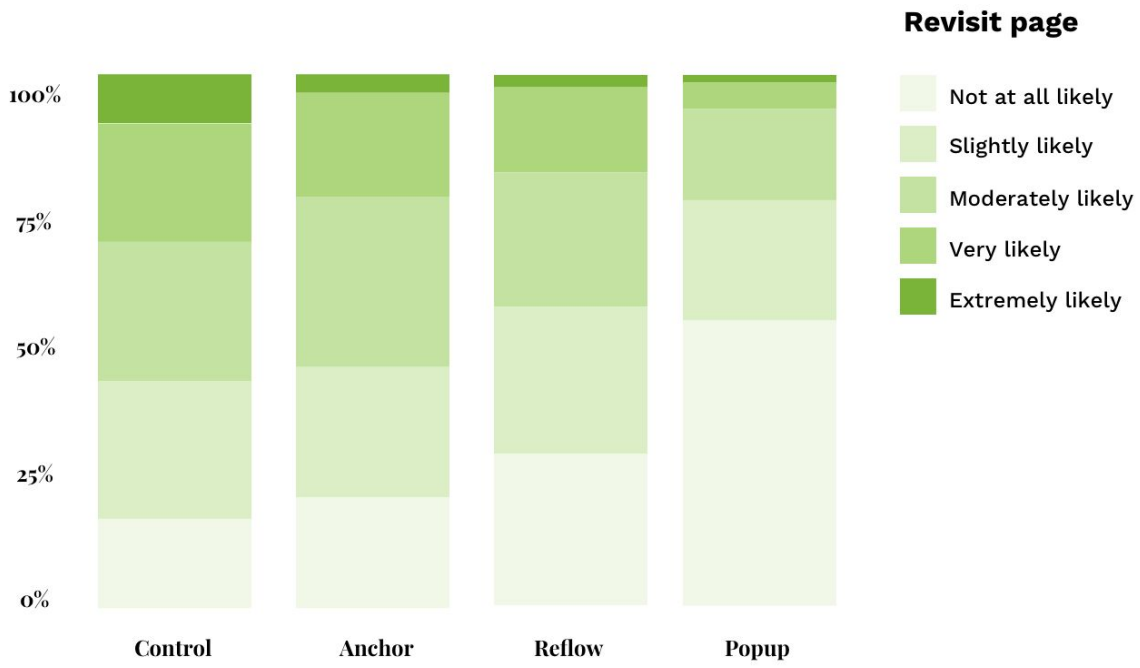

Figure 8: Likelihood participants would revisit the page if a given mobile ad experience was present

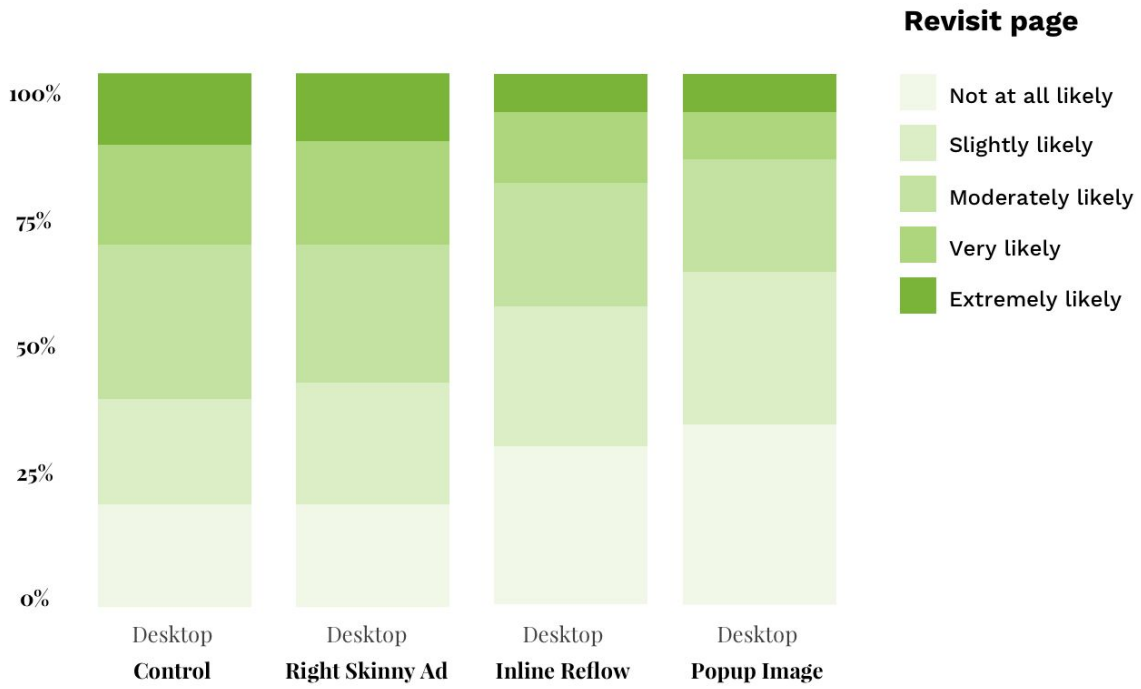

Figure 9: Likelihood participants would revisit the page if a given desktop ad experience was present

Likelihood of sharing the page

In response to the question "How likely would you be to share a webpage like this with someone else?", 25% of mobile respondents noted they were not at all likely to share the page. Anchor and reflow experiences led to a net increase of 10.5%-14%, while the pop-up led to the number of people who would not share the page to more than double to 56%. Importantly, the number of people very or extremely likely to share the page fell to 3.5%. The separation between the experience scores was less clear in desktop. Also of note is that for desktop participants, the most preferred ad experience scores very similarly to the control.

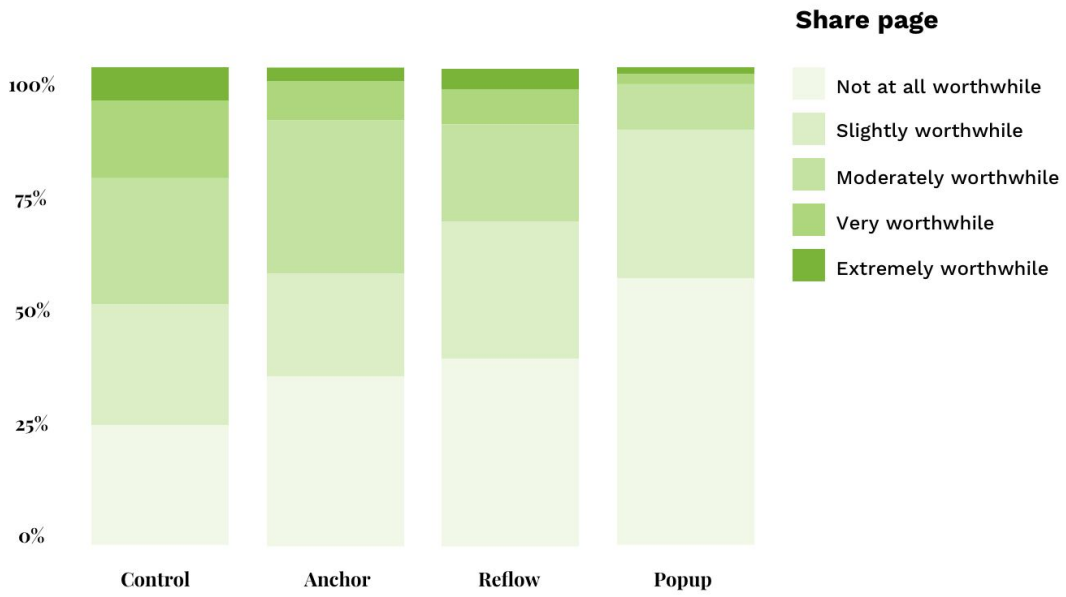

Figure 10: Likelihood participants would share the page if a given mobile ad experience was present

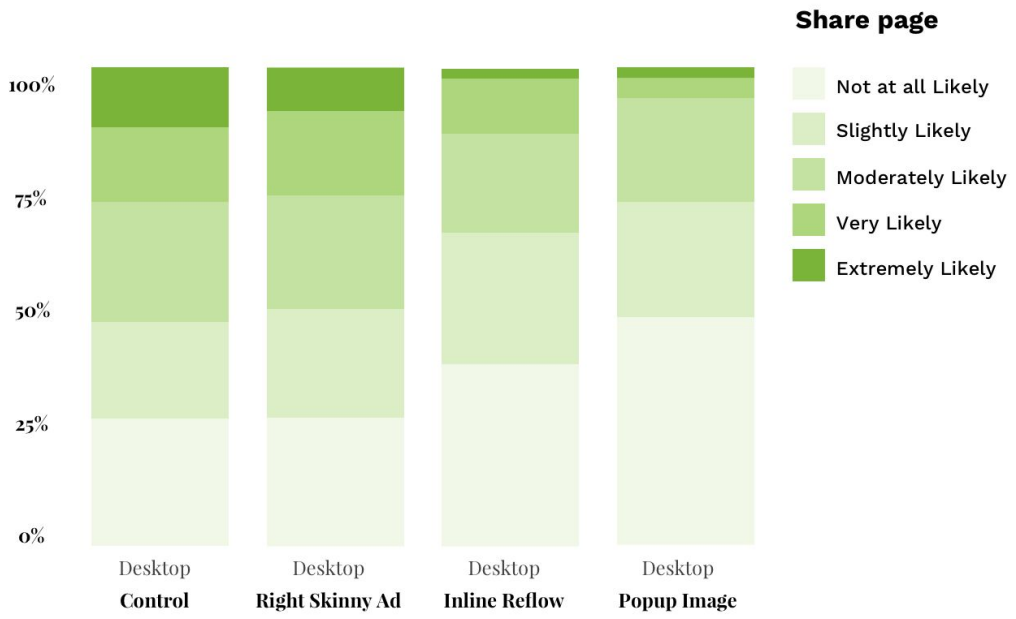

Figure 11: Likelihood participants would share the page if a given desktop ad experience was present

How worthwhile is it to install an ad blocker

In response to the question "Based on your experience with this webpage, how worthwhile would you consider the effort to install an ad blocker?", 11.5% of mobile respondents noted they considered it extremely worthwhile to install an ad blocker in response to the anchor experience. Reflow led to a small increase to 16%, while the pop-up led to a large increase to 44.5%. We observed a similar effect in the desktop group.

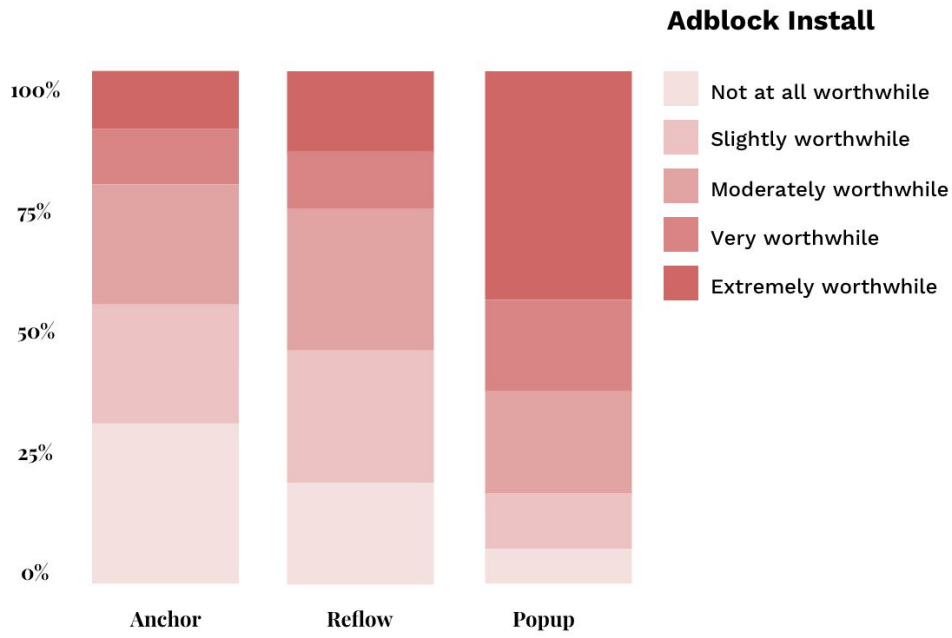

Figure 12: Likelihood participants would install an ad block due to a given mobile ad experience

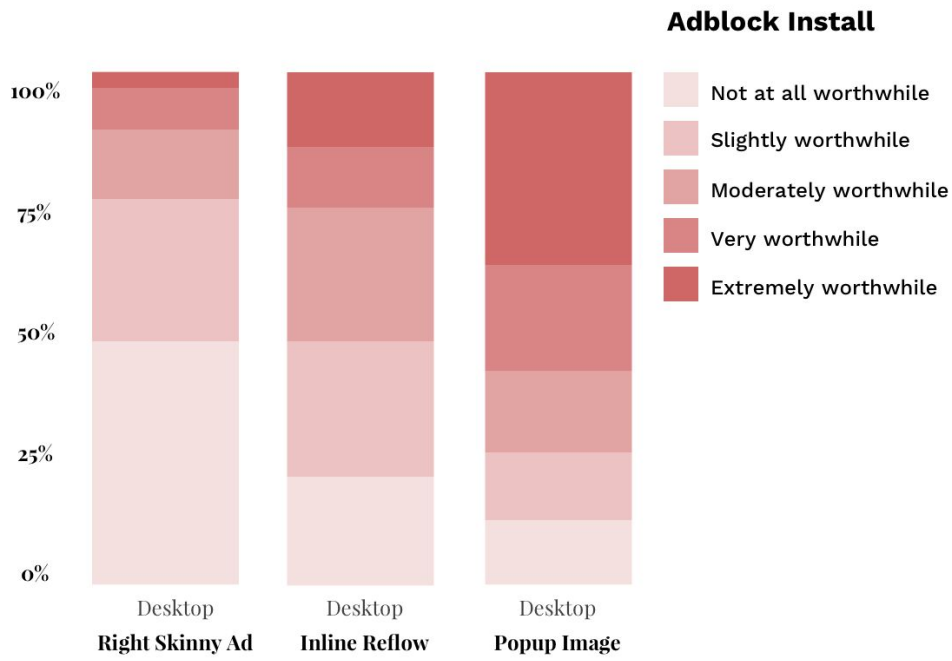

Figure 13: Likelihood participants would install an ad block due to a given desktop ad experience

Summary of results

In response to three mobile ad experiences and the no ad control (when applicable), we observed that the ad experiences allowed by the proposed standard were more similar to each other and to the no ad control than to the pop-up ad experience. This was true in all four of the questions asked.

We noticed that in the desktop ads experiences tests were slightly less clear cut. In terms of adblocker adoption and ad acceptability, the two ads experiences allowed by the proposed standard once again looked similar to each other and the no ads control, while the pop up was significantly worse. In the remaining questions of revisiting a page or recommending to a friend, the participants rated the medium experience (reflow) midway between the pop up and skinny ads.

In both mobile and desktop tests, we observed that the stated likelihood of revisiting the page or recommending to a friend was highly similar between the no ad control experience and the most preferred experience. This suggests that in the ad blocking and acceptability questions, there was likely a low proportion of participants that had a high level of dissatisfaction with all ads that might have contributed to the non-zero “extremely likely to block” and “not at all acceptable” answers in the most preferred conditions.

Discussion

Why confidence intervals were used to determine the line

In previous work we ranked ad experiences by querying a set of participants on their preferences between subgroups of those experiences (Ad Experience Research Group, 2016, Experimental Methodology to Rank N experiences). However, a ranking does not describe a standard, so we explored two methods by which we might construct a standard based on the ranking.

When we investigated clustering ad experiences based on user preference ranking, ratings on UX dimensions, or other combinations, we found that the standards were highly variable when we added the data from even a small numbers of additional participants. As such, we could not create a stable line from this method.

Upon investigating the 10 ad perception dimensions, we found that we could draw a standard such that the most strongly annoying and distracting formats were located below the line. We proceeded to further confirm this line for desktop and mobile using an additional set of studies based on stated likelihood of future actions.

Evidence supporting the proposed standard

Work by the Coalition for Better Ads has shown that there is a strong difference in user perceptions of ad experiences, with user rankings of ads strongly correlated with the annoyance and distraction of the ad formats (Ad Experience Research Group, 2016, Experimental Methodology to Rank N experiences).

Work by the IAB tech lab has shown that pop-ups and other ads that block content are strong drivers of negative user sentiment, while standard display ads perform much better. Likewise, autoplaying video without skip buttons are not preferred (IAB, 2016). These findings are in complete alignment with the proposed line where there is overlap.

Work by Teads has shown that interruptive and annoying ads are the the most common drivers of ad blocker installation. Specifically, on both mobile and desktop, pop-up ads were almost twice as influential for ad blocker adoption as the next highest driver (Teads, 2016).

The experiment described in this paper showed that participants drastically increased the proportion for participants who would consider ad blocker install more worthwhile with an ad experience representative of the worst ad experiences compared with marginally preferred or greatly preferred ad experiences.

Taken together, we see that a wide range of industry players have confirmed that intrusive, annoying, and interruptive ads are rated poorly by consumers. Foremost amongst these are pop-up ads. Ads like pop-ups are credited with decisions to install ad blockers, generally with large differences between the next worst formats, which aligns well with our current findings.

Current state of the ecosystem

The experiences ranked below the line represent approximately 25% of ad experiences tested. Further work will identify their prevalence in the ecosystem, although the hypothesis is that they are represented on under 5% of total pageviews. In addition, many of these ad experiences can be converted into alternate experiences that could have similar monetization. One example: pop-ups can be converted into poststitials by delaying ad display until after the user has taken an action to move to a new page. Similarly, autoplaying video on static pages can be run with the sound disabled in static-sized ad slots to prevent reflow/push-down. Advertisers and publishers that commit to improving the user experience have multiple paths to do so in ways that minimize impacts to their business.

Evolving in the future

It is important to note that the process laid out in this paper allows a Better Ads standard to change or be re-confirmed as consumer preferences change or as more data is collected. As a hypothetical example, an ad experience that is borderline but allowed under the current standard could become less tolerated by consumers as the most intolerable ad formats begin to disappear. In such a case, the stack rank methodology and the confirmatory study can be re-run, and the previously allowed format could be added to the negative list. Alternatively, re-tests could reconfirm the existing line.

This adaptability of a methodology for a Better Ads standard means that we can afford to err on the side of caution in adding ad experiences to the negative list to avoid the churn that would be caused by adding an experience based on preliminary data, only to have to remove it as more data showed the ad experience to be allowable. The confidence interval-based approach we outline above is meant to address this issue. In addition, only a quarter of tested ad experiences fall into the negative standard.

Next steps

The methodology outlined in this paper can be modified to work across additional types of web experiences, and this forms the basis of our next steps.

One major area is spreading the approach to new geographies to see how acceptability varies worldwide. It could be that worldwide users have similar preferences, or they could be very different, and testing is the only way to determine this.

Another area of work is sites with multimedia and interactive content. Our hypothesis is that when one watches a video, some video formats may be found to be more acceptable than they were found to be on static content pages.

Parting thoughts

While this work describes how to identify ad experiences that drive strong negative user reactions, there is a difference between worse ad experiences and preferred ad experiences. As shown by the study, actions like reflow do reduce the percentage of

respondents willing to revisit a page or recommend the page to a friend. In this sense, just because an ad is tolerated by an ecosystem doesn't preclude publishers and advertisers from enacting frequency caps on average ad experiences, bandwidth caps, limiting the number of tracking pixels, or detecting users on lower bandwidth connections and being respectful of those limitations.

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Appendix

Desktop ad experiences

Pop-up Ad
Pop-up ads are a type of interstitial ads that do exactly what they say—pop up and block the main content of the page. They pop up after the page content has loaded and are among the most commonly cited annoyances for visitors to a website.

Pop-up ads come in many varieties--they can take up part of the screen, or the entire screen.

Auto-playing Video Ad with Sound
Auto-playing video ads with sound automatically play sound, without any user interaction.

Excluded from this definition are video ads that appear before (“pre-roll”) or during (“mid-roll”) video content that is relevant to the content of the page itself or ads that require clicks to activate sound.

Prestitial Ad with Countdown
Prestitial “countdown” ads appear before the content of the page has loaded, forcing the user to wait a number of seconds before they can dismiss the ad, or the ad closes on its own.

In desktop environments, prestitial ads that can be dismissed immediately are excluded from this definition.

Large Sticky Ad at the Bottom
Large sticky Ads stick to the edge of a page, regardless of a user’s efforts to scroll. As the user browses the page, this static, immobile sticky ad takes up more than 30% of the screen's real estate.

Mobile ad experiences

Pop-up Ad and Prestitial Ad
Pop-up ads appear on top of the main page after it has loaded, and block the viewing of content. Prestitial ads appear before the content of the page has loaded, can vary in size from full-screen to part of the screen, and prevent users from getting to the main content. Neither pop-ups nor prestitial ads are locked to be flush with any side of the screen.

Ad Density Higher Than 30%
When ads on a mobile page take up more than 30% of the vertical height within the main content portion of the page, the result is a disruptive ad experience, regardless of whether these ads are text, video, or static images. This includes “sticky” ads and in-line ads.

Excluded from this definition are video ads that appear before (“pre-roll”) or during (“mid-roll”) video content that is relevant to the content of the page itself.

Flashing Animated Ad
Flashing animated ads animate and “flash” with rapidly changing background and colors.

Excluded from this definition are animations that do not “flash.”

Auto-playing Video Ad with Sound
Auto-playing video ads with sound automatically play with sound, without any user interaction.

Excluded from this definition are video ads that appear before (“pre-roll”) or during (“mid-roll”) video content that is relevant to the content of the page itself, and ads that require the user to interact with the video to activate sound.

Postitial Ad with Countdown
Postitial ads with countdown timers appear after the user follows a link. These ads force the user to wait a number of seconds before they can dismiss the ad, or for the ad to close or redirect them to another page.

Postitial ads with countdowns that can be dismissed immediately are excluded from this definition.

Large Sticky Ad
Large sticky ads stick to a side of a mobile page, regardless of a user’s efforts to scroll. As the user browses the page, this static, immobile sticky ad takes up more than 30% of the screen's real estate.

Full Screen Scrollover Ad
Full screen scrollover ads force a user to scroll through an ad at a different rate than the underlying content. These ads take up more than 30% of the page and float on top of the page’s main content, obstructing it from view.

The survey instrument

Demographic Questions

Before you begin, we have a few questions about your background.

Age

- 18-21 years old
- 22-34 years old
- 35-44 years old
- 45-54 years old
- 55-64 years old
- 65+ years old

Gender

- Male
- Female
- Other

To what extent do you agree with the following statement?

Overall, I consider online advertising a good thing.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

What is your current employment status?

- Employed
- Out of work
- Student
- Retired
- Other

What is your annual household income before taxes?

- Less than $30,000
- $30,000 to $49,999
- $50,000 to $99,999
- $100,000 to $149,999
- $150,000 or more
- Prefer not to answer

Overall Experience Questions

How likely would you be to visit a webpage like this in the next 30 days?

- Extremely likely
- Very likely
- Moderately likely
- Slightly likely
- Not at all likely

How likely would you be to share a webpage like this with someone else?

- Extremely likely
- Very likely
- Moderately likely
- Slightly likely
- Not at all likely

Ad-specific Questions

Participants only saw this section after reading an article that contained an ad in it. We showed a screenshot of the article they just read, with the ad highlighted, to refresh their memory of the ad.

Below is a reminder of the webpage experience. Any unusual behavior was due to the webpage, and was NOT caused by your device's performance.

[Participant sees screenshot of the exposed ad experience with the ad highlighted in red]

How acceptable was the ad on this webpage?

- Extremely acceptable
- Very acceptable
- Moderately acceptable
- Slightly acceptable
- Not at all acceptable

Based on your experience with this webpage, how worthwhile would you consider the effort to install an ad blocker?
An ad blocker would prevent ads like the one above from appearing on webpages.

- Not at all worthwhile
- Slightly worthwhile
- Moderately worthwhile
- Very worthwhile
- Extremely worthwhile

Ad Experiences We Tested

Mobile Web Ad Experiences

Mobile Web Experiences Tested in a Text and Photo Site Context		
Name	**Description**	**Link**
Static ad positioned at the top	A 300x250 image ad is placed above the article content.	http://poetic-glass-136423.appspot.com/experience?exp=STATIC_TOP&advertiser_id=3&article_id=64&locale=EN
Static inline ad	A 300x250 image ad is placed between two paragraphs in the article.	http://poetic-glass-136423.appspot.com/experience?exp=STATIC_INLINE&advertiser_id=3&article_id=64&locale=EN
35% single-column ad density	Image ads are evenly interspersed with content such that while reading the article, a user always sees ads as 35% of the content.	http://poetic-glass-136423.appspot.com/experience?exp=DENSITY35&advertiser_id=3&article_id=64&locale=EN
Flashing inline 300x250 image ad	A 300x250 animated GIF image ad is shown between two paragraphs of content. The animation flashes and has a lot of quick movement. It repeats every 1 second.	http://poetic-glass-136423.appspot.com/experience?exp=FLASHING_ANIMATION&advertiser_id=3&article_id=64&locale=EN
Sticky ad on bottom	A 320x50 image ad is shown on the bottom of the user's screen - it stays there regardless of the user's scrolling.	http://poetic-glass-136423.appspot.com/experience?exp=ANCHOR&advertiser_id=3&article_id=64&locale=EN
Popup ad w/ countdown	A popup ad appears 5 seconds after the article loads. A full-page popup ad appears on top of the content with a 300x250 image ad. The popup ad has a 10 second timer, after which an easy-to-find close button appears (the ad can't be dismissed for 10 seconds).	http://poetic-glass-136423.appspot.com/experience?exp=POPUP&advertiser_id=

		3&article_id=64&locale=EN
Postitial ad w/ countdown	After a user completes the article, they are shown a full-page ad container with a 300x250 image ad. The ad has a 10 second timer, after which an easy-to-find skip button appears (the ad can't be dismissed for 10 seconds).	http://poetic-glass-136423.appspot.com/experience?exp=POSTITIAL_CD&advertiser_id=3&article_id=64&locale=EN
Tall sticky ad on bottom	A 320x100 image ad is shown on the bottom of the user's screen - it stays there regardless of the user's scrolling.	http://poetic-glass-136423.appspot.com/experience?exp=TALL_ANCHOR&advertiser_id=3&article_id=64&locale=EN
Animated sticky ad on bottom	A 320x50 animated image ad is shown on the bottom of the user's screen - it stays there regardless of the user's scrolling.	http://poetic-glass-136423.appspot.com/experience?exp=ANIMATED_ANCHOR&advertiser_id=3&article_id=64&locale=EN
Prestitial ad w/o countdown	Before the article loads, a user is shown a full-page ad container with a 300x250 image ad. The interstitial has a skip button and can be immediately dismissed.	http://poetic-glass-136423.appspot.com/experience?exp=PRESTITIAL_NOCD&advertiser_id=3&article_id=64&locale=EN
Animated inline image ad	A 300x250 animated GIF image ad is shown between two paragraphs of content. The animation is noticeable, but not blinking or flashing. It repeats every 5 seconds.	http://poetic-glass-136423.appspot.com/experience?exp=ANIMATED&advertiser_id=3&article_id=64&locale=EN
Page-reflowing static inline 300x250 ad	While a user is reading an article, a 300x250 image ad appears and causes the page's contents to reflow (the text shifts down in the viewport).	http://poetic-glass-136423.appspot.com/experience?exp=REFLOW&advertiser_id=3&article_id=64&locale=EN
25% single-column ad density	Image ads are evenly interspersed with content such that while reading the article, a user always sees ads as 25% of the content.	http://poetic-glass-136423.appspot.com/experience?exp=DENSITY25&advertiser_id=3&article_id=64&locale=EN

Postitial ad w/o countdown	After a user completes the article, they are shown a full-page ad container with a 300x250 image ad. The interstitial has a skip button and can be immediately dismissed.	http://poetic-glass-136423.appspot.com/experience?exp=POSTITIAL_NOCD&advertiser_id=3&article_id=64&locale=EN
50% single-column ad density	Image ads are evenly interspersed with content such that while reading the article, a user always sees ads as 50% of the content.	http://poetic-glass-136423.appspot.com/experience?exp=DENSITY50&advertiser_id=3&article_id=64&locale=EN
Prestitial ad w/ countdown	Before the article loads, a user is shown a full-page ad container with a 300x250 image ad. The ad has a 10 second timer, after which an easy-to-find skip button appears (the ad can't be dismissed for 10 seconds).	http://poetic-glass-136423.appspot.com/experience?exp=PRESTITIAL_CD&advertiser_id=3&article_id=64&locale=EN
Popup ad w/o countdown	A popup ad appears 5 seconds after the article loads. A full-page popup appears on top of the content with a 300x250 image ad. The popup ad has an easy-to-find close button and can be immediately dismissed.	http://poetic-glass-136423.appspot.com/experience?exp=POPUPNOCD&advertiser_id=3&article_id=64&locale=EN
Sticky 320x50 ad on the top	A 320x50 image ad is shown on the top of the user's screen - it stays there regardless of the user's scrolling.	http://poetic-glass-136423.appspot.com/experience?exp=ANCHOR_TOP&advertiser_id=3&article_id=64&locale=EN
Video-sized static inline ad	A 300x167 static image ad is placed between two paragraphs in the article.	http://poetic-glass-136423.appspot.com/experience?exp=VIDEOSIZEDSTATIC&advertiser_id=3&article_id=64&locale=EN
Ad causing 10 seconds of latency	A standard 300x250 image ad is placed inline with the content. Once the image ad would be in view, the ad and the content below it are forced to wait for 10 seconds before being visible.	http://poetic-glass-136423.appspot.com/experience?exp=LATENCY_INLINE_10&advertiser_id=3&article_id=64&locale=EN

Refreshing ad w/ 30 second interval	A standard 300x250 image ad is placed inline with the content. The ad is exchanged in-place with another ad every 30 seconds.	http://poetic-glass-136423.appspot.com/experience?exp=REFRESH_30&advertiser_id=3&article_id=64&locale=EN
Click-to-play inline video ad	A 300x167 video ad is placed between two paragraphs in the article. It is paused until a user decides to play the ad.	http://poetic-glass-136423.appspot.com/experience?exp=VIDEO_NOAUTOPLAY&advertiser_id=3&article_id=64&locale=EN
Ad causing 3 frame-per-second scrolling	A 300x250 image ad is placed inline with the content. The content is forced to have a jittery scroll, such that the scrolling only seems to occur at a pace of 3 frames per second (good performance is 60 frames per second).	http://poetic-glass-136423.appspot.com/experience?exp=JANK_3FPS&advertiser_id=3&article_id=64&locale=EN
Ad causing 12 seconds of latency	A standard 300x250 image ad is placed inline with the content. Once the image ad would be in view, the ad and the content below it are forced to wait for 12 seconds before being visible.	http://poetic-glass-136423.appspot.com/experience?exp=LATENCY_INLINE_12&advertiser_id=3&article_id=64&locale=EN
Autoplaying video ad w/o sound	A 300x167 video ad is placed between two paragraphs in the article. It autoplays on mute until a user decides to pause or unmute the ad.	http://poetic-glass-136423.appspot.com/experience?exp=VIDEO_AUTOPLAYMUTED&advertiser_id=3&article_id=64&locale=EN
Refreshing ad w/ 15 second interval	A standard 300x250 image ad is placed inline with the content. The ad is exchanged in-place with another ad every 15 seconds.	http://poetic-glass-136423.appspot.com/experience?exp=REFRESH_15&advertiser_id=3&article_id=64&locale=EN
Identical ads on the same page	Three 300x250 ads are interspersed with the content. The three ads all contain the same content.	http://poetic-glass-136423.appspot.com/experience?exp=DUPLICATES&advertiser_id=3&article_id=64&locale=EN

25% single-column ad density w/ minimal interruption	Image ads are placed together in a "chunk" within content such that while reading the article a user is only interrupted once. 25% of the total height of the content is ads.	http://poetic-glass-136423.appspot.com/experience?exp=DENSITY_CHUNKED_25&advertiser_id=3&article_id=64&locale=EN
Full-screen inline w/ 1 second lock	A 300x250 ad with dark padding surrounding it that takes up the full size of the screen is placed inline with the content. When a user scrolls it into view, the ad blocks the user from scrolling past the ad for 1 second. After 1 second, the user can continue scrolling the article.	http://poetic-glass-136423.appspot.com/experience?exp=FSI_1SECLOCK&advertiser_id=3&article_id=64&locale=EN
Full-screen inline w/ large ad	A 300x600 ad is surrounded by black padding, forcing the ad to take the full screen. It is placed inline with the content such that users can scroll through the ad.	http://poetic-glass-136423.appspot.com/experience?exp=FSI_LARGEAD&advertiser_id=3&article_id=64&locale=EN
Ad causing 2 frame-per-second scrolling	A 300x250 image ad is placed inline with the content. The content is forced to have a jittery scroll, such that the scrolling only seems to occur at a pace of 2 frames per second (good performance is 60 frames per second).	http://poetic-glass-136423.appspot.com/experience?exp=JANK_2FPS&advertiser_id=3&article_id=64&locale=EN
Full-screen inline w/ small ad	A 300x250 ad with dark padding surrounding it that takes up the full size of the screen is placed inline with the content such that users can scroll through the ad.	http://poetic-glass-136423.appspot.com/experience?exp=FSI_SCROLLABLE&advertiser_id=3&article_id=64&locale=EN
35% single-column ad density w/ minimal interruption	Image ads are placed together in a "chunk" within content such that while reading the article a user is only interrupted once. 35% of the total height of the content is ads.	http://poetic-glass-136423.appspot.com/experience?exp=DENSITY_CHUNKED_35&advertiser_id=3&article_id=64&locale=EN
Prestitial ad w/ 3s countdown	Before the article loads, a user is shown a full-page ad container with a 300x250 image ad. The ad has a 3 second timer, after which an easy-to-see skip button appears (the ad can't be dismissed for 3 seconds).	http://poetic-glass-136423.appspot.com/experience?exp=PRESTITIAL_CD3&advertiser_id=3&article_id=64&locale=EN

Full-screen inline ad w/ required dismiss button	A 300x250 ad with dark padding surrounding it that takes up the full size of the screen is placed inline with the content. When a user scrolls it into view, the ad blocks the user from scrolling past the ad. In order to continue reading, the user must press the close button on the ad.	http://poetic-glass-136423.appspot.com/experience?exp=FSI_NEEDSDISMISS&advertiser_id=3&article_id=64&locale=EN
Autoplaying video ad w/ sound	A 300x167 video ad is placed between two paragraphs in the article. It autoplays with sound until a user decides to pause or unmute the ad.	http://poetic-glass-136423.appspot.com/experience?exp=VIDEO_AUTOPLAYSOUND&advertiser_id=3&article_id=64&locale=EN
30% single-column ad density	Image ads are evenly interspersed with content such that while reading the article, a user always sees ads as 30% of the content.	http://poetic-glass-136423.appspot.com/experience?exp=DENSITY30&advertiser_id=3&article_id=64&locale=EN
Small static inline ad	A 320x50 image ad is placed between two paragraphs in the article.	http://poetic-glass-136423.appspot.com/experience?exp=STATIC_INLINE_SMALL&advertiser_id=3&article_id=64&locale=EN
Sticky 320x100 ad on the top	A 320x100 image ad is shown on the top of the user's screen - it stays there regardless of the user's scrolling.	http://poetic-glass-136423.appspot.com/experience?exp=TALL_ANCHOR_TOP&advertiser_id=3&article_id=64&locale=EN
Prestitial ad w/o countdown (different design)	Before the article loads, a user is shown a full-page ad container with a 300x250 image ad. The interstitial has a skip button and can be immediately dismissed.	http://poetic-glass-136423.appspot.com/experience?exp=PRESTITIAL_NOCD_NEW&advertiser_id=3&article_id=64&locale=EN
Autoplaying, reflowing video ad w/o sound	A 300x167 video ad slides into view when a user scrolls to where the video ad would be. It is placed between two paragraphs in the article. It autoplays on mute until a user decides to pause or unmute the ad. The video ad cannot be paused by clicking on the center of the video.	http://poetic-glass-136423.appspot.com/experience?exp=VIDEO_REFLOW&adver

		tiser_id=3&article_id=64&locale=EN
Prestitial ad w/ 3s countdown (different design)	Before the article loads, a user is shown a full-page ad container with a 300x250 image ad. The ad has a 3 second timer, after which an easy-to-see skip button appears (the ad can't be dismissed for 3 seconds).	http://poetic-glass-136423.appspot.com/experience?exp=PRESTITIAL_CD3_NEW&advertiser_id=3&article_id=64&locale=EN
Refreshing ad w/ 5 second interval	A standard 300x250 image ad is placed inline with the content. The ad is exchanged in-place with another ad every 5 seconds.	http://poetic-glass-136423.appspot.com/experience?exp=REFRESH_5&advertiser_id=3&article_id=64&locale=EN
Refreshing ad w/ 1 second interval	A standard 300x250 image ad is placed inline with the content. The ad is exchanged in-place with another ad every second.	http://poetic-glass-136423.appspot.com/experience?exp=REFRESH_1&advertiser_id=3&article_id=64&locale=EN
10% single-column ad density with many interruptions	Image ads are evenly interspersed with content such that while reading the article, a user always sees ads as 10% of the vertical height of the content. The ads are placed to cause the most interruption to the content.	http://poetic-glass-136423.appspot.com/experience?exp=DENSITY_SMALL&advertiser_id=3&article_id=64&locale=EN
Prestitial ad w/ 6s countdown	Before the article loads, a user is shown a full-page ad container with a 300x250 image ad. The ad has a 6 second timer, after which an easy-to-see skip button appears (the ad can't be dismissed for 6 seconds).	http://poetic-glass-136423.appspot.com/experience?exp=PRESTITIAL_CD6&advertiser_id=3&article_id=64&locale=EN
Popup ad w/o countdown (different design)	A popup ad appears 5 seconds after the article loads. A full-page popup appears on top of the content with a 300x250 image ad. The popup ad has an easy-to-find close button and can be immediately dismissed.	http://poetic-glass-136423.appspot.com/experience?exp=POPUP_NEW&advertiser_id=3&article_id=64&locale=EN
Full-Screen Scrollover Ad	When a user hits a certain point in scrolling the article, they instead start scrolling a full-screen image ad. The ad scrolls over the content. once the ad reaches the end, it disappears and the user can continue scrolling through the content.	http://poetic-glass-136423.appspot.com/experience?exp=ABACUS&advertiser_id

		=3&article_id=64&locale=EN
Large sticky ad on the bottom	A 300x250 image ad is shown on the bottom of the user's screen - it stays there regardless of the user's scrolling.	http://poetic-glass-136423.appspot.com/experience?exp=GIANT_ANCHOR&advertiser_id=3&article_id=64&locale=EN

Desktop Web Ad Experiences

Desktop Web Experiences Tested in a Text and Photo Site Context		
Readable Name	**Description**	**Demo Link**
Static inline ad	A 300x250 image ad is placed between two paragraphs in the article.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_STATIC&advertiser_id=3&article_id=64&locale=EN
Sticky 728x90 ad on the top	A 728x90 image ad is shown on the top of the user's screen - it stays there regardless of the user's scrolling.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_TOPANCHOR&advertiser_id=3&article_id=64&locale=EN
Flashing inline image ad	A 300x250 animated GIF image ad is shown between two paragraphs of content. The animation flashes and has a lot of quick movement. It repeats every 1 second.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_FLASHING_ANIMATION&advertiser_id=3&article_id=64&locale=EN
Autoplaying inline video ad w/ sound	A 640x390 video ad is placed between two paragraphs in the article. It automatically starts playing and sound is enabled on the player.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_VIDEOAUTOPLAYSOUND&advertiser_id=3&article_id=64&locale=EN
Page-reflowing static inline ad	While a user is reading an article, a 640x360 image ad appears and causes the page's contents to reflow (the text shifts down in the viewport).	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_INLINE_REFLOW&advertiser_id=3&article_id=64&locale=EN
Static large image ad at the top	A 970x250 image ad is placed above the article content.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_MASTHEAD&advertiser_id=3&article_id=64&locale=EN

35% multi-column ad density	Image ads are placed in the side rails and in content such that while reading the article, a user always sees ads as 35% of the content.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_DENSITY35&advertiser_id=3&article_id=64&locale=EN
Large static inline ad	A 640x360 static image ad is placed between two paragraphs in the article.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_VIDEOSIZEDSTATIC&advertiser_id=3&article_id=64&locale=EN
Prestitial ad w/ countdown	Before the article loads, a user is shown a full-page ad container with a 300x250 image ad. The ad has a 10 second timer, after which an easy-to-see skip button appears (the ad can't be dismissed for 10 seconds).	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_PRESTITIAL_CD&advertiser_id=3&article_id=64&locale=EN
Popup ad w/o countdown	A popup ad appears 5 seconds after the article loads. A full-page popup appears on top of the content with a 300x250 image ad. The popup ad has an easy-to-see close button and can be immediately dismissed.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_POPUPIMAGENOCD&advertiser_id=3&article_id=64&locale=EN
50% multi-column ad density	Image ads are placed in the side rails (in a 3-column layout) and in content such that while reading the article, a user always sees ads as 50% of the content.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_DENSITY50&advertiser_id=3&article_id=64&locale=EN
Prestitial ad w/o countdown	Before the article loads, a user is shown a full-page ad container with a 300x250 image ad. The interstitial has a skip button and can be immediately dismissed.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_PRESTITIAL_NOCD&advertiser_id=3&article_id=64&locale=EN
Animated inline image ad	A 300x250 animated GIF image ad is shown between two paragraphs of content. The animation is noticeable, but not blinking or flashing. It repeats every 5 seconds.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_ANIMATED&a

		dvertiser_id=3&article_id=64&locale=EN
Click-to-play inline video ad	A 640x390 video ad is placed between two paragraphs in the article. It is paused until a user decides to play the ad.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_VIDEONOAUTOPLAY&advertiser_id=3&article_id=64&locale=EN
Popup ad w/ countdown	A popup ad appears 5 seconds after the article loads. A full-page popup ad appears on top of the content with a 580X400 image ad. The popup ad has a 10 second timer, after which an easy-to-see close button appears (the ad can't be dismissed for 10 seconds).	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_POPUPIMAGE&advertiser_id=3&article_id=64&locale=EN
Autoplaying inline video ad w/o sound	A 640x390 video ad is placed between two paragraphs in the article. It automatically starts playing, but is muted.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_VIDEOAUTOPLAYMUTED&advertiser_id=3&article_id=64&locale=EN
25% multi-column ad density	Image ads are placed in the side rails and in content such that while reading the article, a user always sees ads as 25% of the content.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_DENSITY25&advertiser_id=3&article_id=64&locale=EN
Long, skinny ad on right-hand side	A 120x600 ad that fills the left or right side of a publisher's page	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_RIGHT_SKINNYAD&advertiser_id=3&article_id=64&locale=EN
Ad causing 4 frame-per-second scrolling	A 300x250 image ad is placed inline with the content. The content is forced to have a jittery scroll, such that the scrolling only seems to occur at a pace of 4 frames per second (good performance is 60 frames per second).	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_JANK_4FPS&advertiser_id=3&article_id=64&locale=EN

Refreshing ad w/ 30 second interval	A standard 300x250 image ad is placed inline with the content. The ad is exchanged in-place with another ad every 30 seconds.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_REFRESH_30&advertiser_id=3&article_id=64&locale=EN
Ad causing 8 frame-per-second scrolling	A 300x250 image ad is placed inline with the content. The content is forced to have a jittery scroll, such that the scrolling only seems to occur at a pace of 8 frames per second (good performance is 60 frames per second).	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_JANK_8FPS&advertiser_id=3&article_id=64&locale=EN
Prestitial large ad w/o countdown	Before the article loads, a user is shown a full-page ad container with a 800x750 image ad. The interstitial has a skip button and can be immediately dismissed.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_PRESTITIAL_NEW&advertiser_id=3&article_id=64&locale=EN
Sticky ad in siderail	A 300x250 sticky ad on side rail. It stays on screen regardless of how much a user scrolls	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_SIDERAILSTICKY&advertiser_id=3&article_id=64&locale=EN
Siderail takeover ads	Two 300x600 ads are shown on the left and right-hand sides of the content.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_TAKEOVER_SIDE&advertiser_id=3&article_id=64&locale=EN
Large sticky ad in side rail	A 300x600 sticky ad on side rail. The side rail stays on screen separately from the user's scroll.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_SIDERAIL600&advertiser_id=3&article_id=64&locale=EN
Ad causing 8 seconds of latency	A standard 300x250 image ad is placed inline with the content. Once the image ad would be in view, the ad and the content below it are forced to wait for 8 seconds before being visible.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_LATENCY_8&advertiser_id=3&article_id=64&locale=EN

Refreshing ad w/ 15 second interval	A standard 300x250 image ad is placed inline with the content. The ad is exchanged in-place with another ad every 15 seconds.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_REFRESH_15&advertiser_id=3&article_id=64&locale=EN
Ad in Sticky siderail	A 300x250 ad in a sticky side rail. The side rail stays on screen regardless of how much a user scrolls	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_SIDERAIL250&advertiser_id=3&article_id=64&locale=EN
Takeover ad	A massive ad takes the place of the page's background	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_TAKEOVER_FULL&advertiser_id=3&article_id=64&locale=EN
Ads in Left-Hand Column	Ads take up the entire left-hand column of the page's layout	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_LEFT_ADCOLUMN&advertiser_id=3&article_id=64&locale=EN
Ad causing 12 seconds of latency	A standard 300x250 image ad is placed inline with the content. Once the image ad would be in view, the ad and the content below it are forced to wait for 12 seconds before being visible.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_LATENCY_12&advertiser_id=3&article_id=64&locale=EN
Full-width sticky ad on the bottom	A 728x90 image ad is shown on the bottom of the user's screen - it stays there regardless of the user's scrolling. The rest of the width of the page on either side of the ad is covered by black bars.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_ANCHOR_FW&advertiser_id=3&article_id=64&locale=EN
Prestitial large ad w/ 3s countdown	Before the article loads, a user is shown a full-page ad container with a 800x750 image ad. The ad has a 3 second timer, after which an easy-to-see skip button appears (the ad can't be dismissed for 3 seconds).	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_PRESTITIAL_NEWCD3&advertiser_id=3&article_id=64&locale=EN

Full-screen inline ad	A Full-screen ad is placed inline with the content such that users can scroll through the ad.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_FSI&advertiser_id=3&article_id=64&locale=EN
Autoplaying video ad w/o sound (hard to pause)	A 640x390 video ad is placed between two paragraphs in the article. It autoplays on mute until a user decides to pause or unmute the ad. The video ad cannot be paused by clicking on the center of the video.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_NEWVIDEO_AUTOPLAYMUTED&advertiser_id=3&article_id=64&locale=EN
Animated sticky ad on bottom	A 728x90 animated image ad is shown on the bottom of the user's screen - it stays there regardless of the user's scrolling.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_ANCHOR_ANIMATED&advertiser_id=3&article_id=64&locale=EN
Autoplaying video ad w/ sound (hard to pause)	A 640x390 video ad is placed between two paragraphs in the article. It autoplays with sound until a user decides to pause or mute the ad. The video ad cannot be paused by clicking on the center of the video.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_NEWVIDEO_AUTOPLAYSOUND&advertiser_id=3&article_id=64&locale=EN
Prestitial ad w/ 3s countdown	Before the article loads, a user is shown a full-page ad container with a 300x250 image ad. The ad has a 3 second timer, after which an easy-to-see skip button appears (the ad can't be dismissed for 3 seconds).	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_PRESTITIAL_CD3&advertiser_id=3&article_id=64&locale=EN
Autoplaying, reflowing video ad w/o sound	A 640x390 video ad slides into view when a user scrolls to where the video ad would be. It is placed between two paragraphs in the article. It autoplays on mute until a user decides to pause or unmute the ad. The video ad cannot be paused by clicking on the center of the video.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_VIDEOREFLOW&advertiser_id=3&article_id=64&locale=EN
Sticky 970x250 ad on the top w/ 3s countdown	A 970x250 image ad is shown on the top of the user's screen - it stays there regardless of the user's scrolling, but after 3 seconds it disappears from the viewport and repositions itself at the top of the page.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_TOPANCHOR

		_SHORTTIME&advertiser_id=3&article_id=64&locale=EN
Sticky 970x250 ad on the top w/ 10s countdown	A 970x250 image ad is shown on the top of the user's screen - it stays there regardless of the user's scrolling, but after 10 seconds it disappears from the viewport and repositions itself at the top of the page.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_TOPANCHOR_LONGTIME&advertiser_id=3&article_id=64&locale=EN
Expandable ad w/ 2s delay	A 300x250 image ad is placed inline with the content. If the user hovers their mouse over it for 2 seconds, the ad expands and covers content.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_EXPANDABLE_TIME&advertiser_id=3&article_id=64&locale=EN
Ad causing 2 frame-per-second scrolling	A 300x250 image ad is placed inline with the content. The content is forced to have a jittery scroll, such that the scrolling only seems to occur at a pace of 2 frames per second (good performance is 60 frames per second).	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_JANK_2FPS&advertiser_id=3&article_id=64&locale=EN
Sticky siderail ad	A 120x600 side rail ad. The ad stays on screen regardless of how much a user scrolls	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_SIDEBAR_ANCHOR&advertiser_id=3&article_id=64&locale=EN
10% single-column ad density with many interruptions	Image ads are evenly interspersed with content such that while reading the article, a user always sees ads as 10% of the vertical height of the content. The ads are placed to cause the most interruption to the content.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_DENSITY25_SINGLE_SMALL&advertiser_id=3&article_id=64&locale=EN
25% single-column ad density	Image ads are evenly interspersed with content such that while reading the article, a user always sees ads as 25% of the vertical height of the content.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_DENSITY25_SINGLE&advertiser_id=3&article_id=64&locale=EN

15% single-column ad density with many interruptions	Image ads are evenly interspersed with content such that while reading the article, a user always sees ads as 15% of the vertical height of the content. The ads are placed to cause the most interruption to the content.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_DENSITY35_SINGLE_SMALL&advertiser_id=3&article_id=64&locale=EN
Expandable ad	A 300x250 image ad is placed inline with the content. If the user hovers their mouse over it, the ad expands and covers content.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_EXPANDABLE&advertiser_id=3&article_id=64&locale=EN
Portal / Parallax Scrolling Ad	A 300x250 ad position shows a 300x600 image ad. As the user scrolls, the article moves, but the ad does not. The effect makes a larger ad visible through a smaller "window".	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_PORTAL&advertiser_id=3&article_id=64&locale=EN
35% single-column ad density	Image ads are evenly interspersed with content such that while reading the article, a user always sees ads as 35% of the vertical height of the content.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_DENSITY35_SINGLE&advertiser_id=3&article_id=64&locale=EN
Sticky 728x90 ad on the bottom	A 728x90 image ad is shown on the bottom of the user's screen - it stays there regardless of the user's scrolling.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_ANCHOR&advertiser_id=3&article_id=64&locale=EN
Sticky 970x250 ad on the top	A 970x250 image ad is shown on the top of the user's screen - it stays there regardless of the user's scrolling.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_BIGTOPANCHOR&advertiser_id=3&article_id=64&locale=EN
Sticky ads on the top and siderail	A 728x90 image ad is shown on the top of the user's screen, and a 300x250 image ad is shown on the right of the user's screen. Both ads stay in place regardless of the user's scrolling	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_TOPANDRIGHTANCHOR_PAD&adv

		ertiser_id=3&article_id=64&locale=EN
Sticky 970x250 ad on the bottom	A 970x250 image ad is shown on the bottom of the user's screen - it stays there regardless of the user's scrolling.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_BIGBOTTOMANCHOR&advertiser_id=3&article_id=64&locale=EN
Sticky 580x400 ad on the bottom	A 580x400 image ad is shown on the bottom of the user's screen - it stays there regardless of the user's scrolling.	http://poetic-glass-136423.appspot.com/experience?exp=DESKTOP_ANCHOR_GIANT_PAD&advertiser_id=3&article_id=64&locale=EN