



July 8, 2015

To: Users of MRC Accredited Desktop Viewability Data

From: George Ivie, David Gunzerath and Ron Pinelli

re: Update on Desktop Viewable Impression Reconciliation Guidance and Reconciliation Checklist

The Media Rating Council (MRC), in its ongoing effort to identify and address any remaining systematic issues that cause discrepancies in the desktop viewable impression measurements among MRC-accredited viewability measurement providers, has concluded a data reconciliation exercise involving analysis of specially structured data on viewability measurement results for production advertising campaigns. The MRC undertook this additional step to ensure that any remaining material causes for desktop viewable impression systematic counting differences were identified. This analysis involved most major MRC accredited viewability vendors and included nearly 4 billion impressions and thousands of campaigns, covering display and video ads, as well as publisher and agency/advertiser traffic (including ad served via networks and exchanges).

Data supplied to MRC for this project (in response to [a call for additional data](#)) was maintained under strict confidentiality. MRC has made efforts to prevent sharing the identity of participants and will not share results on an attributed basis with anyone. Results reported from this phase of testing are generalized and anonymously reported below.

This analysis was undertaken to build on both prior reconciliation projects and as a means to identify and eliminate the remaining differences in viewability reporting across vendors. This is the last structured reconciliation testing effort planned on desktop viewability.

Executive Summary

The MRC compared the total viewable impressions for campaigns tagged for viewability measurement by two or more viewability vendors across a large dataset provided by a wide range of publishers, advertisers and agencies. For nearly two-thirds (63%) of the campaigns (among those consisting of more than 100,000 viewable impressions measured), the differences observed between vendors' viewable impression counts were within what was deemed an acceptable range (i.e., less than a 10% difference). The average (weighted) of the differences observed for these campaigns was 4.1%.

For the remaining campaigns (37%) of more than 100,000 viewable impressions, differences of more than 10% between/among the vendors' viewable impression counts were observed. In these instances, the median difference noted between vendors' viewable impression counts was 23%, and the average (weighted) difference was 34% per campaign. This was a greater level of differences than those noted in the two earlier phases of reconciliation testing.

Smaller campaigns of less than 100,000 viewable impressions tended to show greater variability in comparative results.

Further analysis showed that these differences appeared to be partially driven by several factors. Some were related to previous MRC Reconciliation Guidance (Multi-Ad Units accounts for 28% of total differences). Other factors noted included (% of total differences noted in parentheses):

1. The presence, differing treatment and lack of segregation of mobile traffic (54%);
2. Pixel tracking: differences in measurement of traffic served by other vendors (13%); and
3. Ad verification or counting viewable impressions net of unverified ads (2%).

History of Previous Reconciliation Work

Project # 1 (late 2013)

As part of the initial process to create viewability guidelines, the MRC and a group of accredited viewability measurers worked over several months and were assisted in a production test by a major digital advertising agency. As a result of this reconciliation work, MRC identified certain reasons why discrepancies in viewability metrics existed among measurers. When the [Viewable Impression Measurement Guidelines](#) were initially released in June 2014, MRC included five critical points aimed at improving counting consistency. Specifically, we:

1. Added greater specificity to minimum viewable decisioning parameters (100ms and 200ms minimal interval for display and video viewability measurement, respectively);
2. Announced our intention to eliminate "count on decision" as an acceptable served impression counting method (asked vendors to convert to client-side counting of only rendered ads);
3. Dictated a certain processing sequence (requiring determination of the pixel requirement prior to time requirement, and application of ad verification functions after the viewability decisioning);
4. Called for distinguishing ad and ad container measurement (required disclosure and continual study of inferring that an ad is present in the iFrame container, and encouraged selecting consistent vendors where more than one is used); and
5. Mandated (through audits) accounting for "focus" treatment differences (segregating ads present on out of focus tabs).

Project # 2 (late 2014-early 2015)

Earlier in 2015, MRC evaluated certain issues related to viewable impression measurement that had led, on occasion, to continued discrepancies among accredited vendors' viewability measurements. Past MRC study led to points of guidance that helped improve the consistency of viewable impression counts and viewable rates among MRC accredited viewable impression measurement vendors, but as part of an [Update on Viewable Impression Reconciliation Guidance](#) provided to viewability vendors dated April 13, 2015, the MRC identified additional issues to be addressed in the near future through an update to the *MRC Viewable Impression Measurement Guidelines*, which included:

1. Mandating the use of the large size display ad pixel threshold;
2. Standardizing viewability rules for multi-ad unit situations;
3. Establishing rules for the consistent use of the page visibility API;
4. Establishing rules for the consistent use of the Flash-based "throttle" indicator;
5. Viewable impression measurement by vendors who also apply enhanced Invalid Traffic Filtration techniques; and
6. Updates to performance rate calculations.

MRC is currently cycling through audits to determine compliance with the Update on Viewable Impression Reconciliation Guidance.

Current Reconciliation Work*Project # 3 (Current Reconciliation Work, based on Q1-Q2 2015 campaign data)*

As this represents MRC's third iteration of a desktop viewable impression reconciliation exercise, we believe very few material methodological differences in the measurement of desktop viewability remain. However, the current and final analysis identified a number of items that may drive material differences in reported results due to disclosure or manner of reporting.

The data set analyzed included data measured by multiple vendors, with some vendors represented more than others (based on the respective use of each vendor by the organizations that chose to provide data). It is possible that the contribution of each factor noted below could vary with an increase or decrease in the data measured by an individual vendor (i.e., some factors may be more or less prevalent at a particular vendor).

It should also be noted that observed variances may be impacted by one or a combination of the factors discussed below (one or more factors may be present within the same dataset); however, in preparing our analysis, MRC assigned a difference classification based on the factor that appeared to be responsible for the majority of the variance noted.

The following is a summary of the results of the most recent viewability reconciliation that quantifies the percentage of total of differences noted for each identified factor (listed in order).

Summary of Reconciliation Results

Factor	% of Total Differences Noted
Mobile	54.2%
Multi-Ad Units	28.1%
Pixel Tracking	12.5%
Verification	1.9%
Other*	3.2%
Total	100.0%

* Includes Large Format, Position in the Ad Chain, IVT and unclassified factors.

Contributing Factors

The disclosure and reporting issues identified during the final reconciliation exercise are summarized below along with the MRC's recommendations related to them. These issues explain the vast majority of the remaining viewable impression differences noted (unexplained discrepancies were immaterial) and are presented in order of the magnitude of impact on discrepancies observed in our analysis. Users of MRC accredited desktop viewability data are encouraged to request clarification and disclosure surrounding these items. MRC accredited desktop viewability measurers are required to adopt the recommendations below.

1) Segregation of Mobile Viewability: As part of [Interim Guidance on Mobile Viewability](#) released during May 2015, the MRC stated that we believe technical characteristics of the mobile ad serving environment may require the development of new or enhanced methods for determining the viewability of mobile-delivered ads and that interaction with ads in mobile environments may have different patterns than those observed in the desktop environment. Vendor practices vary in unknown manners, and no organization has been accredited as yet by MRC for mobile viewable impression measurement. The MRC is committed to this issue and plans to issue consensus-based refined interim guidance during the third calendar quarter of 2015.

The MRC's May 2015 Interim Guidance stated that measurers should segregate mobile ad impressions (for Total Mobile ads and for Mobile Web ads) from desktop ad impressions in their reporting, to the fullest extent possible, as Measured Rates can differ significantly between desktop and mobile. While the MRC has made efforts to require the segregation of mobile and desktop viewability in the User Interface (UI) of accredited desktop viewability measurers, many users consume the resultant data outside of the UI (via Application Programming Interface [API] data feeds or raw files for third-party-processing [TPP]).

MRC Recommendation: All impressions served to mobile devices should be segregated from desktop impressions for viewability reporting (Served Impressions, Measured Impressions, Viewable Impressions and corresponding rates) in UIs as well as in API data feeds and in TPP raw files. This includes campaigns that are completely mobile and those mobile impressions within a mixed device campaign. Additionally, mobile viewability should be further segregated by mobile web and mobile in-app impressions. The capabilities and limitations of the measurer to determine operating system and browser should be fully understood and disclosed.

2) Multi-Ad Units: One of the material causes for differences in viewable impression measurement in the most recent analysis included the impact multi-ad unit campaigns. As discussed in the April 2015 Update, certain display ad campaign buys call for viewability measurement across multiple ad units. In such instances, we have seen that viewability rules often are being applied inconsistently (e.g., for certain page takeover buys, in which multiple ads for the same product appear on the same page at the same time, we have seen cases in which measurers require all ads to be viewable in order to count the multi-ad unit as viewable).

MRC Recommendation: The MRC has previously stated that each ad should be measured independently for viewability, and reported independently for viewability, and the need for doing this was supported by the most recent analysis. The MRC has incorporated each of the previous reconciliation items in our accreditation examination activities for all audited viewability measurers (although not all of these audits have been cycled through yet) and we intend to update our existing viewability status disclosures to include an enumeration of compliance with the initial and updated reconciliation guidance for each of the accredited display and video desktop viewability vendors.

3) Treatment of Other or Multiple Viewability Measurers (Pixel Tracking): Often times, the tracking assets of viewability vendors involve pixel tags that can be identified by placement dimensions in detailed reporting. These may be in the form of a 1 x 1 pixel asset or other small asset format. All campaigns submitted for the most recent analysis involved tracking and measurement by two or more viewability measurers for the same traffic and campaigns per the data request, for comparison. Measurers may treat placements with the tracking assets or tags of other measurers differently or forgo measurement of viewability completely. Such treatment will result in obvious differences between measurers of the same traffic and campaigns.

MRC Recommendation: The treatment of traffic served or tagged by measurers other than the reporting source for purposes of viewability measurement should be fully understood and disclosed. Users are strongly encouraged to determine how the measurer considers these situations in advance of transacting and especially when making cross-vendor comparisons.

4) Ad Verification: Several accredited desktop viewability measurers also employ ad verification techniques whereby ads are either blocked or filtered from reporting when either when they are deemed brand unsafe (based on brand safety taxonomies) or when they are served to sites counter to the configuration of subscribers (based on site content, keywords or the presence of other ad content).

Often times, viewability metrics may be reported net of impressions filtered or blocked by verification techniques (verified viewability resulting in lower levels of viewable impressions for the same traffic). This also may impact served impression counts used as a base for viewability performance metrics. Such practices may result in material discrepancies when reporting is compared to other measurers who either do not employ these techniques or whose verification procedures differ.

MRC Recommendation: *The [IAB Ad Verification Guidelines](#) detail a required approach for disclosure and reporting by ad verification vendors. The presence of ad verification and the impact on reported results should be fully understood and disclosed. Where possible, viewability metrics should be reported prior to any filtration or removal of unverified traffic (along with net, verified reporting where applicable). Users are strongly encouraged to determine impact in advance of transacting and especially when making cross-vendor comparisons.*

Other Items

Additionally, as this exercise included some data from late 2014 and early 2015, a portion of the traffic analyzed was impacted by the issues identified in the April 2015 Update such as:

1. Measurement of large display ads (MRC now requires the use of 30% of pixels for a minimum of one-second thresholds as the sole criteria on which large size [i.e., sized 242,500 pixels or greater] display ads are measured);
2. Served impression counting that already includes non-rendered (or count on decision) ads (i.e., position in the ad chain); and
3. Inconsistencies related to the application of invalid traffic filtration (MRC is in the process of creating enhanced IVT Guidelines that will require clear and consistent reporting).

Ongoing processes

Audit tests are needed to verify that vendors are compliant with the guidance discussed above and are consistent in their approaches. This highlights the importance of the accreditation process. Additionally, MRC encourages longitudinal work in this area such as that involving the IAB Ad Lab.

The issues and recommendations detailed within the April 2015 update as well in this document based on the most recent reconciliation, will be incorporated into an updated version of the *MRC Viewable Impression Measurement Guidelines* that will be issued later in 2015, and will serve as accreditation assessment criteria in forthcoming MRC audits of viewable impression measurement systems.

Please contact Ron Pinelli at MRC (rpinelli@mediaratingcouncil.org) with any questions.

APPENDIX A

Inception to Date Viewability Reconciliation Guidance Checklist:

- **Granularity of measurements:** Viewability measurement guidelines specify 100 millisecond intervals as a minimum requirement for viewability measurement of display ads, and 200 milliseconds as the minimum interval for the measurement of video ads.
- **Non-rendered served ads:** The Viewable Impression Measurement Guidelines requires the calculation and disclosure of certain performance metrics related to viewability measurement. Viewability performance metrics should be calculated using Rendered Served Impressions as their basis.
- **Order of Processing and Processes Applied:** MRC has specified that the order in which viewability thresholds should be applied as: 1) Space: determine that the 50% pixel threshold is met; then 2) Time: determine that the continuous second threshold is met. The application of additional ad verification procedures should be executed separately and subsequently to the viewable impression count.
- **Ad versus Ad Container Measurement:** Measurement of the ad container involves an inference that the ad appears in the container as intended. MRC will require measurers to disclose whether they measure the ad or the ad container, and, in the case of the latter, will direct the measurement organization to periodically study the validity of assumptions implicit in container measurement.
- **Out of Focus Conditions:** MRC has specified that measurers should segregate Out of Tab Focus ads from their viewable impression counts.
- **Use of the Large Size Display Ad Pixel Threshold:** MRC will now require the use of the 30% of pixels for a minimum of one-second thresholds as the sole criteria on which large size (i.e., sized 242,500 pixels or greater) display ads should be measured for viewability.
- **Viewability Rules for Multi-Ad Unit Situations:** In a case where multiple ad units are present under the terms of a buy or within a campaign, each ad should be measured independently for viewability, and reported independently for viewability.
- **Consistent Use of the Page Visibility API:** The Page Visibility API is not sufficient for a stand-alone solution for viewability measurement, but may be used as a supplemental contributor to viewability measurement. If an unknown value is returned from a Page Visibility API, the measurement organization should apply those measurement processes utilized beyond this API to determine the viewable state and; if not resolved, the impression should be counted as “unmeasurable.”

- **Rules for the Consistent Use of the Flash-based “Throttle” Indicator:** The Throttle Indicator is not sufficient for a stand-alone solution for viewability measurement, but may be used as a supplemental contributor to viewability measurement. If an unknown value is returned from a Throttle Indicator, the measurement organization should apply those measurement processes utilized beyond this Indicator to determine the viewable state and; if not resolved, the impression should be counted as “unmeasurable.”
- **Viewable Impression Measurement by Vendors Who Also Apply Enhanced Invalid Traffic Filtration Techniques:** There should be an initial viewable impression count executed subsequent to the standard IAB required filtration procedures (these are referred to as “General Invalid Traffic detection” in MRC’s forthcoming [draft of revised guidance for the filtration of invalid traffic](#)). Enhanced techniques (called “Sophisticated Invalid Traffic detection” in the IVT guidance document) for detecting and removing additional invalid traffic should be executed subsequent to this base viewable impression decision. If a vendor does provide such enhanced filtration processes, it should report both the base viewable impression count prior to the application of these enhanced methods, as well as the “net” viewable impression count that results after these techniques have been applied.
- **Segregation of Mobile Viewability:** All impressions served to mobile devices should be segregated from desktop impressions for viewability reporting (Served Impressions, Measured Impressions, Viewable Impressions and corresponding rates) in UIs as well as in API data feeds and in Third Party Processor raw files. This includes campaigns that are completely mobile and those mobile impressions within a mixed device campaign. Additionally, mobile viewability should be further segregated by mobile web and mobile in-app impressions. The capabilities and limitations of the measurer to determine operating system and browser should be fully understood and disclosed.
- **Treatment of Other or Multiple Viewability Measurers (Pixel Tracking):** The treatment of traffic served or tagged by measurers other than the reporting source for purposes of viewability measurement should be fully understood and disclosed. Users are strongly encouraged to determine how the measurer considers these situations in advance of transacting and especially when making cross-vendor comparisons.
- **Ad Verification:** The presence of ad verification and the impact on reported results should be fully understood and disclosed. Where possible, viewability metrics should be reported prior to any filtration or removal of unverified traffic (along with net, verified reporting where applicable). Users are strongly encouraged to determine impact in advance of transacting and especially when making cross-vendor comparisons.