

Digital Place-Based Audience Measurement Standards

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Sponsoring Association:
Media Rating Council (MRC)

Table of Contents

1 Overview 3

1.1 Goal of Standards 4

1.2 Development Process 5

1.3 Development Team 5

1.4 Standards Scope and Applicability 5

2 Measurement Definitions 8

3 Digital Place-Based Media Audience Metrics 12

3.1 Metrics Established by DPAA Audience Metrics Guidelines 12

 3.1.1 Audience – General Guidance 12

 3.1.2 Core Metrics (Venue Traffic, Screen Traffic, & Screen Audience) 13

 3.1.3 Extended Calculated Metrics (Average Unit Screen Audience, and Average Ad Audience, and Reach & Frequency) 18

3.2 Other Considerations 21

 3.2.1 Audience Measurement and Attribution 21

 3.2.2 Cross-Media Considerations 22

3.3 Summary of Requirements for Syndicated Audience Measurers (Audience Metrics) 22

4 Digital Place-Based Media Measurement Specifics 24

4.1 Measurement Approaches 24

4.2 Data Quality, Completeness and View Requirements 28

4.3 Inferences, Estimation, Ascription, Projection of Measurement Data 29

4.4 Data Editing and Adjustment 30

4.5 Frequency of Measurement 30

4.6 Summary of Requirements for Syndicated Audience Measurers (Measurement Specifics) 30

5 Enhancing Digital Place-Based Audience Measurement Accuracy 32

5.1 Filtration for Non-Human Activity 32

5.2 Error Correction and Reissue Policies 32

5.3 Summary of Requirements for Syndicated Audience Measurers (Enhancing Accuracy) 33

6 Reporting Parameters 33

6.1 Data Access 33

6.2 General Parameters 34

 6.2.1 Time 34

 6.2.2 Location 35

 6.2.3 Segregating Non-Like Ad Content or Activity 35

6.3 Summary of Requirements for Syndicated Audience Measurers (Reporting) 35

7 Screen Classification 36

8 Disclosure Guidance 38

8.1 Summary of Requirements for Syndicated Audience Measurers (Disclosure) 40

9 Auditing Guidelines 40

9.1 General 40

9.2 U.S. Certification Recommendation 41

10 Who We Are 42

11 References 42

12 Contact Us 42

Digital Place-Based Audience Measurement Standards

1 Overview

This document presents Standards for the measurement of Digital Place-Based Audiences and represents phase one of a planned two-phased initiative. Phase two is intended to encompass the broader aspects of digital and analog out-of-home (OOH) media with expectation that a single document will ultimately be produced designed to foster a common core of metrics that can be applied across the full expanse of out-of-home media, and that these metrics be comparable to other measured media. The document was prepared for the use and benefit of the media Industry, especially those constituents that analyze audience volumes, composition and behaviors, whether for content or advertising on Digital Place-Based media and those that monetize audiences to advertising (whether buyer or seller) in a Digital Place-Based environment.

It should be noted that the “best” methods and approaches to measure the audience of any media are driven by the nature of the medium, its environment, its mode(s) of delivery and how its audience consumes and interacts with the medium. This is especially true of Digital Place-Based media due to the diverse nature of the venues, environmental factors for each venue and the available measurement techniques for these unique environments.

These Standards are intended to lead toward improved measurement practices in the United States for Digital Place-Based media, and were written with consideration of the relatively nascent state of this medium. These Standards are expected to evolve over time, through a regimented revision process as the industry matures and certain technological solutions and other research methods become more feasible. Changes in the size and diversity of the marketplace should also be considered.

In subsequent versions we will highlight other methods of measurement, some of which may already be employed in other markets that should be considered for use in the United States once deemed feasible. Our intention is to work to continually improve the quality and state of research for Digital Place-based media as the marketplace develops, and we expect the Digital Place-Based media owners will adopt and accept the need for continued advancement in research methods and quality.

The MRC also promotes full transparency and throughout this document specifies that measurement organizations must be transparent with respect to all aspects of their operations so that users have a complete understanding of the methods used to collect, edit, adjust, process, and report the data. The level of transparency we promote is not intended to force disclosure of any protected intellectual property or highly proprietary techniques, though these aspects should be subject to confidential audit conducted by an independent body.

This document also encourages validation of the underlying information that forms the basis for counting, as well as the methods and techniques employed by measurers to edit and process raw data to derive audience metrics. Validation shall extend to external data sources, to the extent possible, and shall be performed periodically both internally and by external parties. For syndicated measurement services, empirical research that validates methodological techniques is generally required and should be available for customer review in a summary fashion.

This document should be considered in conjunction with the DPAA's Audience Metrics Guidelines, published August 8, 2008, which describes the general principles, measurement framework and definitions of Digital Place-Based media. Other valuable information can be derived from the ESOMAR Global Guidelines on Out-of-Home Audience Measurement Version 1.0, published May 2009 and similar documents published by CODACAN and OVAB Europe. The MRC studied all these documents while completing these measurement Standards.

1.1 Goal of Standards

This document establishes a detailed set of methods and common practices for entities that measure Digital Place-Based Audiences. These Standards are intended to establish and document sound and minimally acceptable practices of measurement; improve practices and disclosures used by practitioners; and also provide education to users of Digital Place-Based Audience measurement data from all segments of the Industry.

This document also establishes a recommendation and a benchmark for audit processes whereby the practices and disclosures of Digital Place-Based Audience measurement products can be voluntarily validated by third parties. In summary, our goals for this document are as follows:

- Provide for a consistent set of definitions for key elements of audience measurement
- Recommend minimum disclosures which should be provided to measurement data users
- Provide a clear statement of recommended research operating practices and quality, and describe minimum requirements as well as best practices
- Encourage experimentation and advances to improve audience research quality
- Encourage cross-media comparability as well as comparability across countries

1.2 Development Process

The Standards contained in this document originated from a project led by the Digital Place-Based Advertising Association (DPAA), facilitated by the Media Rating Council (MRC), with the participation of a large group of Digital Place-Based vendors, measurement organizations and other interested organizations.

These Standards will also be reviewed and approved by major buyer-side trade organizations (4As, ANA) and their constituents and thereafter provided to the public through a formal period of public comment prior to formal adoption.

The final Standards are expected to be published and available on MRC's website and will be re-assessed periodically to ensure they remain applicable over time.

1.3 Development Team

The development team consisted of a large group of individuals representing the following organizations and entities, and a special thanks is extended to DPAA who served as the impetus for the start of this Standards development initiative.

- Media Rating Council (MRC)
- Advertising Agencies
- Digital Out-of-Home Trade Associations
- Digital Trade Associations
- Industry Consultants
- Media Content Distributors
- Media Measurement Services
- Various International Entities

1.4 Standards Scope and Applicability

These Standards are intended to cover the methods used for measurement of certain Digital Place-Based media that employ full motion video, and may or may not have an audio component. Audio-only Digital Place-Based media are not fully addressed in this Standards document though many of the principles and measurement methods apply. Audio-only providers were not prevalent at the time these Standards were written and specific requirements for audio-only DPB services will require evaluation so that further refinements can be considered as that form of DPB media develops and the need arises. Audio-only will be addressed through an addendum to this document or its successor, or in a separate document.

In instances when audio is employed in conjunction with video, the measurer must consider that the area in which someone can see the video likely differs

from the area in which the source can be heard. The measurer must determine how it will account for the variations in potential exposure, and disclose the methods used to determine each type of exposure, including any overlapping measure (e.g. Audio and Video) that may be included in reporting. Regardless of whether information is gathered directly from respondents, or developed using spatial definitions, empirical support must be maintained as to whether the medium is viewable and/or audible.

The minimally acceptable base measure for reporting purposes is “Exposure to Video Only”. Reporting of this single measure provides for consistency and enables direct comparison across the various forms of DPB media that may or may not have an audio component. Additional measures may be reported as optional variables and must be clearly labeled and defined, and represented as supplemental measures. The default reporting metric for Audio-only Digital Place-Based media should be “Exposure to Audio Only” and this data must be segregated or clearly delineated from video related metrics.

Following are a set of key metrics available for reporting:

Required Reporting Metric

- Exposure to Video Only – Reflects an area in which exposure to the Video can be determined, and there is no assurance as to whether the audio can be heard. This area is referred to as the Video Exposure Zone.

Optional Reporting Metrics

- Exposure to Video and Audio – Based on an area in which the video can be seen and the audio can be heard.
- Exposure to Audio Only – Considers an area in which the audio can be heard though there is no assurance the video is viewable. This area is referred to as the Audio Exposure Zone.
- Exposure to Video or Audio – Reflects the area in which someone has the opportunity to either see the video or hear the audio, and does not necessarily require that they have opportunity for exposure to both components. This is the most liberal definition among the reporting metrics, and in most instances will yield the largest Screen Traffic and Screen Audience estimates though this will vary based on the environment in which the medium is delivered.

Measurers may elect to report on additional metrics, possibly indicating interactions, though these should not supplant the base measure of “Exposure to Video Only” (or “Exposure to Audio Only” for Audio-Only providers), and any additional measures should be clearly defined and disclosed.

Measurers that employ an audio-based measurement solution must consider that exposure within the Screen Exposure Zone might be shaped differently than what the device measures. For instance audio signals may be detectable outside the area in which the video can be viewed (e.g. behind the screen) and may also be confounded by ambient noise. While an audio-based measurement technique can

provide reasonable assurance of exposure to the audio content the same does not hold true for the video. Situations may also exist where the video is viewable and the audio is inaudible.

Measurers that employ an audio-based measurement solution must disclose this measurement limitation or take steps to account for these possible differences. The latter action will necessitate careful study so that logical adjustments can be applied that are supported by empirical evidence. The measurer must also delineate situations where the audio-based method is incapable of determining possible exposure due to the lack of audio present in the content or display device, and any method to adjust for this shall be supported by empirical evidence.

Detailed disclosure is necessary so that users understand the nature of the measurement and any subsequent adjustments, and include quantification of the magnitude of the adjustments.

- The methods used for measuring Digital Place-Based media include:
- (1) establishing Venue Traffic counts of appropriate quality (these establish the estimate of potential unduplicated Screen Traffic or Screen Audience by virtue of Presence in the venue – the Screen Traffic counts and unduplicated audience estimates can never be more than the Venue Traffic counts)
 - (2) establishing Screen Traffic counts of appropriate quality (these establish the counts of potential audience to the screen by virtue of Presence within a zone where the individuals have an opportunity for exposure to the screen while a viewability condition exists)
 - (3) establishing Screen Audience estimates of appropriate quality (these represent the number of individuals which were present with Opportunity-to-See and/or hear the source while a viewability condition exists, and who viewed the screen)
 - (4) calculating average Ad unit audience estimate of appropriate quality, where applicable (representing a refinement of Screen Audience estimates to account for actual Ad units viewed and/or heard and based on Dwell Time of the individuals).

Measurement and reporting is also dependent upon having a complete screen classification database that is subject to third party verification and audit.

This document is principally applicable to Digital Place-Based media audience measurers, Digital Place-Based media vendors and other users of Digital Place-Based data and is intended as Standards for accepted measurement practice. Additionally, marketers and advertising planners and buyers can use this document to assist in determining how accurately measurement parameters are executed.

Measurers should seek to adopt a syndicated measurement approach, across the spectrum of Digital Place-Based media venues/sources and avoid custom

methods unless dictated by a unique set of measurement circumstances. In instances where custom methods are employed users shall be informed of any measurement differences with steps taken to limit comingling of the data, ideally through separate reporting. This document describes major types of measurement techniques and describes best practices and basic measurement quality requirements for each type.

2 Measurement Definitions

IMPORTANT: Many of these definitions were taken from the DPAA's *Glossary of Buying and Selling Terms for Digital Place-Based Advertising Networks* (the Glossary). In some cases these definitions have been modified and/or expanded by the MRC and project participants; this was necessary to add specificity and to make the definitions fit to be used in these measurement Standards, and to the extent possible, congruent with terms employed in other media. *Where definitions have been taken from the DPAA glossary, this text is presented italicized.*

Digital Place-Based Audience:

- The number of individuals counted as present in a specific venue, with measured Presence in the Exposure Zone with Dwell Time for a Digital Place-Based Screen within that venue while a viewability condition exists, and who viewed (as defined herein) that content. Audience members must have the Opportunity-to-See and/or hear the content and sufficient evidence of view to the screen during the Dwell Time corresponding to the presented material. View must be measured/verified, not assumed based on mere Presence.
- In short, the key characteristics of Digital Place-Based Audience estimates are Presence at venue and Screen Exposure Zone, Dwell Time, and View. The screen must be both visible and, where applicable, audible during the audience Dwell Time, and the viewability condition must be met. Each of these components of audience must be measured with sufficient quality and frequency, with calculation rigor and transparency.
- Viewability is a prerequisite including specific requirements for ad content.
- Audiences can be segregated based on demographic or other characteristics for reporting purposes as well as day-parts and/or week-parts. Inferences, adjustments and attribution of audience information as well as projection methods shall be based on systematic and logical procedures and be defensible by empirical analysis, and impacts resulting from these adjustments should be disclosed with the reported estimates.
- Unique audience can also be reported, but this necessitates de-duplicating individuals with multiple exposures over the reporting period for a screen, or across screens, or with other media based on industry accepted practices.

Other Definitions/Concepts:

Ad Audience: The number of individuals estimated to be in the Screen Audience while ad content is present and deemed viewable.

Ad Exposure Time: The length of time the audience spent viewing and/or listening when ad content is present and deemed viewable.

Ad Exposure Frequency: The distinct number of times ad audience is exposed to an ad.

Ad Exposure Reach: The net unduplicated count of ad audience.

Ad Rotation Duration: *The number of seconds required to view all of the ads in a rotation or Loop.*

Ad Unit Length - Unit of time representing the segment of the Loop containing ad content.

Affidavit: *Legitimate proof of posting by the vendor that the advertiser's message ran as scheduled.*

Audibility Zone – See Screen Exposure Zone.

Audience: See Screen Audience

Audience Composition: *The demographic and/or socioeconomic profile of the network's audience that is inclusive of the percentage of the total audience falling in each segment.*

Average Ad Audience: *The number and type of people exposed to the average ad unit. For most networks this is identical to the average unit audience.*

Average Unit Audience: The average Ad Audience for a unit of time equal to the typical ad unit.

Captive Audience: *An audience confined to an area in which consumers have a strong likelihood to being exposed to the messaging.*

Content – Program or ad material intended for delivery through the Screen, and this can be video, audio, or both. Promotional activity and Public Service Announcements also qualify as a form of Content.

Coverage Area: *Geographic area covered by network installations.*

Day-Part: *A partial segment of a medium’s overall operating hours, during which programming and/or advertising is customized to appeal to a particular demographic or target audience.*

Digital Place-Based Networks: *Networks integrating targeted entertainment and/or information program content with advertising narrowcast through digital networks and/or screens in place-based venues such as big box and small retail, transit, airports, malls, grocery, health clubs, medical offices, gas stations, Taxis, bars and restaurants, office buildings, hotels and other out-of-home consumer venues.*

Dwell Time: The length of time an individual is in a Screen Exposure Zone which is a location from which the screen is visible and, if appropriate, audible.

Exposure – Presence in the defined Screen Exposure Zone while content is deemed to be viewable, though this does not require that the content be viewed or listened to. Exposure is also often referred to as Opportunity-to-See.

Loop: *Segments of content and advertising programmed to a specific length that repeats on standard intervals. Example: A six-minute Loop that contains 11-15 second ad positions along with editorial content. The Loop repeats 10 times an hour, providing 10 plays for each message per hour, each message playing once in the Loop.*

Non-Probability Samples: *Any of several different sampling schemes in which the elements in the “sampling frame” do not have both a known and non-zero probability of selection. It is impossible to calculate this type of study’s margin of sampling error though methods exist that allow you to approximate a value.*

Opportunity-to-See: See Exposure.

Presence: The state of being present in a defined location, whether it is within the venue to establish Venue Traffic counts, or within the defined Screen Exposure Zone, which for video means the area in which the video can be viewed, and for audio, the area where the audio is audible.

Probability Sampling: *Any of several different sampling approaches in which each element in the population has a known, non-zero probability of being selected.*

Response Rate: *The percentage of eligible sample units that provide usable, complete information in a survey.*

Rotation: *One ad position in a Loop.*

Sample Frame: *A listing that should include all those in the population to be sampled and excludes all those who are not in the population.*

Screen: A device or medium designed to deliver Digital Place Based Content and/or Advertising whether it be video, audio, or both.

Screen Audience: The count of individuals estimated to be present in the Screen Exposure Zone that viewed the screen while a viewability condition exists. Also referred to as Audience.

Screen Traffic: The count of individuals over a period of time with Presence in the Screen Exposure Zone while a viewability condition exists.

Screen Exposure Zone: *The physical area in which a person is able to see and/or hear a specific, place-based advertising source. This may also be referred to as the Visibility Zone or Audibility Zone depending on the measure.*

Traffic Count: *The number of people who enter a venue. As noted in the DPAA Glossary (p. 8): “The simplest to measure, but least relevant gauge of value is distribution and verification (e.g., audited circulation in print). This is venue traffic for digital placed-based networks.”*

Unit: *Duration of the Network’s typical Ad Unit.*

Venue: *The place and location of the advertising network and screens. Examples include supermarkets, office buildings, gas stations, and other places where consumers can be found.*

Venue Traffic – The count of individuals estimated to be present in the venue.

View: Looking at a screen while in the Screen Exposure Zone.

Viewable/Viewability – Assurance that content and/or ads are present on the screen so that it can be viewed or listened to, thereby enabling the possibility of Exposure. Measurement of ad content has specific requirements in terms of the duration and portion of the ad content that must be present in order to be considered viewable.

Visibility Zone – See Screen Exposure Zone

Weighting: *Statistical adjustments applied before data are analyzed, to account for respondents’ unequal probabilities of selection in probability samples, as well as to project in-tab sample to defined universe estimates.*

3 Digital Place-Based Media Audience Metrics

3.1 Metrics Established by DPAA Audience Metrics Guidelines

As noted in the DPAA Audience Metrics Guidelines (dated August 8, 2008) (p.10): *“Solid vehicle audience metrics are necessary to be comparable to the current state of measurement. Metrics that provide a measure of confidence in the likelihood of exposure to advertising are becoming necessary to be fully competitive, and the networks should prepare for the need to measure exposure to specific advertising in the near future.”*

Note: These Standards have adopted the term “Screen” in lieu of “Vehicle” so where DPAA Guidelines make reference to “Vehicle” that should be considered to be analogous to any references to “Screen” in this document.

3.1.1 Audience – General Guidance

Audience is the most common and valuable currency metric for media in the U.S. Venue Traffic counts, while easier to measure, provide the least value due to missing evidence of Opportunity-to-See and/or hear, and even more importantly, View. Screen Traffic is somewhat more valuable than Venue Traffic in that it accounts for Presence in the Screen Exposure Zone which provides the Opportunity-to-See while a viewability condition exists, though Screen Traffic also does not account for View.

Audience (across ads in a campaign) forms the basis for demographic impressions, which when divided by population size form gross rating points. In the case of Digital Place-Based networks, these population estimates can be stated on the basis of Venue Traffic (the upper limit of potential unduplicated audience to the Screen) or total population in some cases when comparability to other media is relevant.

Audience can be expressed as an average across a unit in time (likely equal to the length of a typical advertising unit) or as a measure of the audience of a specific advertisement – the latter being a discrete commercial audience.

As stated previously, to qualify for inclusion in audience estimates the following characteristics must be present: Presence at the venue and Screen Exposure Zone, Dwell Time, and View. The screen must be both visible and, where applicable, audible during the audience Dwell Time, and the viewability condition must be met. Each of these components of audience must be measured with sufficient quality and frequency, with calculation rigor and transparency.

Measurement organizations should strive to report all audience metrics in a manner that makes them directly comparable to existing media metrics to enable direct comparison to other media and to facilitate cross-media comparison. Factors to be considered include demographic and geographic reporting characteristics, dayparts, and reporting period (e.g. daily, weekly, etc.).

3.1.2 Core Metrics (Venue Traffic, Screen Traffic, & Screen Audience)

3.1.2.1 Venue Traffic (Presence Alone)

Venue Traffic is a basic component of calculating audience estimates though is insufficient in nature to qualify, alone, as audience. The qualifying criterion for inclusion in Venue Traffic counts is Presence at the venue, and this Presence at the venue must be established to qualify for audience estimates. Specifically, to qualify for inclusion in audience a person must be documented to be present at the venue.

Venue Traffic can be established solely by counting procedures and is often times secured from third party sources, and these sources must have sufficient evidential matter to establish Presence. Passive methods are preferred, and regardless of the method counts shall ensure fluctuations by day of week and time of day are accounted for.

Transactional data, such as register receipts or ticket sales are often times relied on for Venue Traffic. When these data are gathered from disparate sources (e.g. sales data from multiple sources), or through technology solutions that are subject to overlap, there shall be some study or means to account for possible duplication, and any subsequent adjustments shall be empirically supported and disclosed. Measurers should avoid reliance on surrogate data (e.g. retail transaction information in lieu of mall data) unless there is sufficient evidence of a strong correlation, and any differences are accounted for. These data shall be periodically monitored and assessed to determine their continued validity and whether further adjustments are necessary.

If Venue Traffic counts are based on periods prior to the measurement period, and thereby inferred to be applicable to the measurement period, the specific periods actually measured for Venue Traffic counts shall be disclosed. It is preferable for the Venue Traffic measurement period and the audience measurement period to closely correspond in time, preferably overlap. Significant timing deviations create risk that Venue Traffic information cannot be attributed accurately to Screen Audience, thereby lessening the utility of the measurement data.

Seasonality in venue should be strongly considered, with material adjustments made when measurement periods differ.

Venue counting data shall be subject to quality control checks that prevent material error and subject to periodic internal auditing to verify accuracy. Evidence supporting venue counts shall be retained for at least 12 months following release of specific audience data.

Operating times for venues should be stated, and qualification for inclusion in counts shall be limited to venue operating times. Sufficient internal controls shall be established to: (1) ensure accurate capture of operating times across measured venues, and (2) the application of these times to counting procedures (exclusion of traffic during times when the venue is closed or not accessible).

If third-party estimates are used by the measurement organization in establishing venue counts, the measurement organization should have sufficient understanding and visibility into the accuracy of these estimates. Access to observe and/or verify vendor processes and access to the counting data itself are critical to establishing a basis for relying on such data for measurement purposes.

In situations in which the processes associated with an underlying data source cannot be independently verified or observed, the measurement service shall develop some means to obtain the necessary assurance on the quality of this foundational data, with evidence that these controls are adequate for the task and functioning as intended. Disclosure is required when an underlying data source is not an industry recognized trusted provider (e.g. US Census), and cannot be independently verified.

Venue data is considered a foundational element to measurement and as such all aspects must be periodically validated as well as subject to independent external audit in accordance with the guidance outlined in the Auditing Guidelines section of this document (Section 9).

3.1.2.2 Screen Traffic (Presence In the Screen Exposure Zone)

Screen Traffic counts are another component of calculating audience estimates, and also are not sufficient in nature, alone, to qualify as audience. The qualifying criterion for inclusion in Screen Traffic counts is Presence at the specific media screen within the Screen Exposure Zone while a viewability condition exists. Generally to qualify for inclusion in audience individuals must not only be documented to be present at the venue but must be documented to be present at the screen in the Screen Exposure Zone as well.

Presence in the Screen Exposure Zone must be established with sufficient evidential matter. Generally, this is based on observation or other direct method of counting (manual observation, survey based response or technology-based electronic means). Passive methods that do not entail direct interaction with respondents are preferred. Regardless of the method; counts shall ensure that fluctuations by day of week and time of day are accounted for. Screen Traffic counts require that an established viewable area around the screen, commonly referred to as a Screen Exposure Zone, be determined that restricts the count for a specific media screen.

If Screen Traffic counts are based on periods prior to the measurement period, and thereby inferred to be applicable to the measurement period, the specific periods actually measured for Screen Traffic counts shall be disclosed. It is preferable for the Screen Traffic measurement period and the audience measurement period to closely correspond in time, preferably overlap. Significant timing deviations create risk that Screen Traffic information cannot be attributed accurately to Screen Audience, thereby lessening the utility of the measurement data. Seasonality in Screen Traffic should be strongly considered, with material adjustments made when measurement periods differ.

Screen counting data shall be subject to quality control checks that prevent material error and subject to periodic internal auditing to verify accuracy. Evidence supporting screen counts shall be retained for at least 12 months following release of specific audience data.

The specific nature, size and empirical evidence supporting the basis for a Screen Exposure Zone shall be retained and also disclosed to users. If Screen Exposure Zones vary in size based on the environment of the venue or screen setting, this shall be described and dimensioned for the user of the audience data.

Operating times for screens should be stated, and qualification for inclusion in counts shall be limited to screen operating times and when content is deemed viewable. Sufficient internal controls shall be established to: (1) ensure accurate capture of operating times across measured screens, and (2) the application of these times to counting procedures (exclusion of traffic during times when the Screen is not operational or content is otherwise not viewable).

Services shall rely on industry accepted screen classification databases for measurement and reporting purposes, and the source

should be subject to independent third party verification and audit.
(See Section 7)

Measurement organizations should have sufficient understanding of the accuracy in establishing screen counts, locations, and other screen classification details, as well as in determining the exposure zone. Access to observe and/or verify vendor processes and access to the counting data itself are critical to establishing a basis for relying on such data for measurement purposes.

In situations in which the processes associated with an underlying data source cannot be independently verified or observed, the measurement service shall develop some means to obtain the necessary assurance on the quality of this foundational data, with evidence that these controls are adequate for the task and functioning as intended. Disclosure is required when an underlying data source is not an industry recognized trusted provider (e.g. U.S. Census), and cannot be independently verified.

Screen Traffic counts are considered a foundational element to measurement and as such must be periodically validated as well as subject to independent external audit in accordance with the guidance outlined in the Auditing Guidelines section of this document (Section 9).

3.1.2.3 Screen Audience (Presence with View)

As opposed to traditional media where the consumer is generally making a choice to view or listen to the selected media, in most cases the consumer approaches Digital Place-Based media for other purposes or are present at a Screen, within the venue by chance. For that reason, mere Presence at the venue and screen is considered insufficient for inclusion in audience estimates.

In addition to the criteria stated above for venue and Screen Traffic, measurement of Screen Audience requires additional verification of View. This can be achieved through observation-based technical means (biometrics, head movement sensing, eye-tracking or facial recognition) or more traditional methods such as surveys/interviews measuring a respondent's recall of the screen or other claims gathered from respondents.

If observation-based technical techniques (e.g. facial recognition, eye tracking etc.) are employed to establish View within the Screen Exposure Zone, the accuracy of the techniques shall be established through rigorous periodic testing with general accuracy rates

described to measurement users. Technical tools should function accurately for the entire Screen Exposure Zone; otherwise modification of the zone should be considered. Additionally if these technical means are employed using sampling, this shall be disclosed along with procedures for ensuring representativeness of reported audience relative to total venue and Screen Traffic. Physical or operational limitations of the technical tool shall be disclosed and the tool shall be subject to audit.

If surveys/interviews are employed to establish View within the Screen Exposure Zone, these techniques are subject to more traditional research quality controls and best practices. Specifically:

- Generally some form of probability sampling of respondents is required to ensure the results are representative of Screen Traffic and thereafter can be projected.
 - Sampling error shall be disclosed for estimates that are projected to represent venue/Screen Traffic, but this is not required for estimates based solely on census counts.
 - Non-probability sampling techniques are generally considered insufficient for measurement purposes. If the use of these uncontrolled samples is necessary, the measurement organization should work with MRC (or another auditing entity) to establish a basis for reliance, and study the ability to estimate sampling error. There are serious barriers to establishing a non-probability sample as the basis for establishing View.
 - In instances where non-probability sampling techniques are used it is recommended that some form of calibration to probability-based data be performed to help eliminate potential biases.
- Response rates shall be compiled and reported and these rates should be reasonable.
 - The measurement organization shall make diligent attempts to gain cooperation, including incentives and other cooperation-enhancing techniques.
 - Respondents shall be analyzed to ensure they represent venue and Screen Traffic from a characteristic perspective, especially for weighted and reported characteristics.
 - Low response rates would require an analysis of potential non-response bias by the measurement organization supporting why the results remain projectable.

- Survey instruments used for tabulation of results shall be subject to editing (and if necessary, ascription) which is appropriate and supported by appropriate empirical justification by the measurement organization.
- Survey instruments removed from tabulation for quality reasons shall be retained for a period equivalent to the business usability of the results, and no less than twelve months, and the measurement organization should periodically check these for appropriateness.
- Data collection processes shall have adequate surrounding internal controls to prevent material errors and these controls should be verified by periodic internal validation procedures.
- Data collection shall be executed with sufficient sample and in sufficient frequency to be considered representative of data reported.

The establishment of View to the screen (Screen Audience) establishes the measure of audience solely to the source content, generally not the advertising.

Determining View is core to developing an audience metric and as such the methods employed to establish View must be periodically validated as well as subject to independent external audit as recommended in the Auditing Guidelines section of this document (Section 9).

3.1.3 Extended Calculated Metrics (Average Unit Screen Audience, and Average Ad Audience, and Reach & Frequency)

3.1.3.1 Average Unit Audience

Average Unit Audience is the audience to a unit of time that is equivalent to the length of the average ad unit delivered by the Network. The ad unit represents the segment of the Loop that contains ad content, and this segment may include one or more brand or creative units. Promotional activity and Public Service Announcements (PSAs) shall be identified and the methods used to account for these forms of content shall be disclosed. This is the first, most general, measure of audience to Digital Place-Based advertising. Average Unit Audience requires measurement of the respondent's Dwell Time during exposure to the screen, which then needs to be considered in context of the advertising within the Loop, and the Loop frequency. As stated in the Audience – General Guidance section, this Dwell Time in the Screen Exposure Zone must also include View (including only respondents with View).

As stated in the DPAA Audience Metrics Guideline (p15): *“The Vehicle Zone Dwell Time is divided by the ad unit length to obtain the number of ad units exposed, which is then divided by the number of ad units in the ad rotation duration to obtain the average ad unit exposure. Or more simply, the Vehicle Zone Dwell Time is divided by the ad rotation duration. Averaged across the sample, this provides the average ad unit exposure for the total population [when projected], or the population segment of interest.”*

Measurement organizations should consider that an ad must run at least one time during the Dwell Time (based on Loop size and frequency) to be exposed and projected to 100% of the Screen Audience. Otherwise calculation processes must be used to fractionalize the audience exposed.

If Dwell Time for respondents is established through technology-based means, the accuracy of the techniques shall be established through rigorous periodic testing with general accuracy rates described to measurement users. Technical tools should function accurately for the entire Screen Exposure Zone; otherwise modification of the zone should be considered. Additionally if these technical means are employed using sampling, this shall be disclosed along with procedures for ensuring representativeness of reported audience relative to total venue and Screen Traffic. Physical or operational limitations of the technical tool shall be disclosed and the tool shall be subject to audit.

Non-technical measurements of Dwell Time, such as those based on a survey/interview of a sample of respondents are subject to traditional quality controls and best practices as described above in the section entitled Screen Audience.

Internal controls shall exist to ensure advertisements are inserted as intended and ad content of screens is accurately captured and reported to measurement users...essentially ad trafficking controls. These controls shall be periodically validated for accuracy for internal purposes.

Known variations in traffic that lead to audience variations shall be described to users of measurement data and accounted for in projections of samples or other forms of measurement. Variations may be the result of seasonality, time of day, day of week, or other such factors.

Dwell Time is typically defined on the basis of seconds, but if longer Dwell Times are typical, this can be converted to minutes. Dwell

Times shall be measured with sufficient frequency to ensure they are representative of reported behavior keeping in mind such factors as time of day, day of week, seasonality, and other variables that may cause variation. Measurement organizations should keep in mind that Dwell Times can vary based on content and advertising within the screen's media, so venue and screen environments are not the sole source of Dwell Time variability.

3.1.3.2 Average Ad Audience

Most media sources have been slowly moving toward discrete measurement of advertising audiences and in some cases, such as digital/Internet media, measurement of audiences to a specific advertising creative.

Audience to an advertisement can be stated on the basis of the "average" ad unit in the screen's Loop at the time, which is the easier execution, or stated on the basis of a specific ad campaign within that Loop, which is technically difficult. This Guideline focuses on Average Ad Audience for the Screen Loop as discrete ad measurement processes are generally in development/study stages.

For Digital Place-Based Networks that run ad Loops continuously with or without other content, the measurement of Average Ad Audience and Average Unit Audience are identical. If the ad Loop does not run continuously, then a measurement organization needs to study and account for differences in respondent behavior and/or Dwell Times for content versus advertisements. This may necessitate collection of Ad-based Traffic, View and Dwell Time, rather than simply generalizing these from total screen metrics.

Trafficking (i.e. programming, Ads, and Loops) internal controls are very critical in determining the accuracy of Average Ad Audiences.

3.1.3.3 Reach and Frequency

Reach and Frequency are important variables to understand in selling Digital Place-Based media and similarly are important for those entities that plan and buy these media.

Reach is the net (unduplicated) count or percent of the defined universe of the target audience exposed to content, advertising, or a specific ad, in a Screen within a defined time frame. This time frame can be a day, week, or month, or even less-frequent time periods although more frequent reports are generally desirable to users.

Frequency refers to the number of times the target audience is typically exposed to content, advertising, or a specific ad, in the defined time frame. Frequency represents the average exposure when used in conjunction with cumulative reach estimates, though it can also be reported on the basis of specific exposure levels when evaluated in the context of discrete reach estimates through frequency distribution analyses

Reach and Frequency can cross Screen locations and in some cases Screen types and are aggregations from more granular measurements described above – but in all cases Presence, Dwell Time, and View are required for Reach and Frequency estimates for Digital Place-Based media.

Methods for establishing unduplicated Reach counts shall be disclosed and periodically tested for effectiveness. This process may require use of modeling/estimation techniques and collection of duplication rates. Likewise these estimation techniques shall be supported by sufficient empirical evidence of effectiveness and be periodically validated and subject to audit.

Respondent surveys/interviews requiring recall of exposure over specified time periods (day, week(s), a month, etc.) are subject to requirements for survey/interview controls stated earlier in these Standards.

Syndicated measurement services shall strive to conduct research in a manner that allows for the calculation of Reach and Frequency estimates across media networks based on empirical data, and not solely derived through modeling processes. The measurement should be sufficiently granular, and consistent, in terms of reporting period (e.g. daily, weekly, etc.) with data reported for other media to allow for cross-media comparisons.

Measurers should seek to report Reach/Frequency metrics on the same basis as other media to allow for direct comparison and to facilitate cross media comparisons.

3.2 Other Considerations

3.2.1 Audience Measurement and Attribution

Measurement organizations may sometimes use techniques other than direct observation to attribute audience characteristics to traffic at a Screen within the Screen Exposure Zone. If these techniques are used, they shall be

subject to rigorous testing and evaluation. Efficacy of these techniques must be established and disclosed by the measurement organization to measurement users.

In general, a measurement organization must directly collect at least a portion of the actual characteristics of Screen Audience – i.e., attribution methods cannot be used as the sole source of assigning audience characteristics. This directly collected data is essential to the validation of the attribution method over time.

The proportion of attributed audience to actually gathered audience characteristics shall be disclosed and if this proportion varies by targeted/reported characteristic the nature and extent of the variability should be disclosed to measurement users.

Attribution techniques shall be subjected to periodic re-affirmation testing over time, since audience behavior and audience levels by characteristic can change.

3.2.2 Cross-Media Considerations

Measurement organizations should consider and strive to develop systems that are comparable with other competitive media types to help facilitate the integration of DPB data with data on other media. Accordingly the following measurement attributes are encouraged, but not required:

- Use of measurement techniques that are similar to best practices in other media.
- Development of a gross rating point type measurement for advertising audiences to facilitate metric comparability.
- Consider a method to produce unique audience when combining estimates with other media.
- Adopting a frequency of measurement that is relevant across media types, which may entail increasing the frequency of measurement in Digital Place-Based media.
- Segregating content from advertising measurement -- a technique that is emerging in other media.
- Measurement and reporting of demographic and geographic characteristics comparable to those available for other media

3.3 Summary of Requirements for Syndicated Audience Measurers (Audience Metrics)

The following summarizes requirements noted within the narrative portion of Section 3 of these Standards that Syndicated Audience measurers are expected to adhere to. While all measurers, including those who provide custom reporting for a single entity (i.e., non-syndicated) should follow the

practices prescribed in this document, there are certain fundamental requirements that should be applied by syndicated products, as noted below.

- Venue counting data should be subject to quality control checks that prevent material error and subject to periodic internal auditing to verify accuracy. Evidence supporting venue counts shall be retained for at least 12 months following release of specific audience data (3.1.2.1)
- Operating times for venues should be stated, and qualification for inclusion in counts shall be limited to venue operating times. Sufficient internal controls shall be established to: (1) ensure accurate capture of operating times across measured venues, and (2) the application of these times to counting procedures (exclusion of traffic during times when the venue is closed or not accessible) (3.1.2.1).
- If third-party estimates are used by the measurement organization in establishing venue counts, the measurement organization should have sufficient understanding and visibility into the accuracy of these estimates. (3.1.2.1)
- Services shall rely on industry accepted screen classification databases for measurement and reporting purposes, and the source should be subject to independent third party verification and audit. (3.1.2.2)
- In situations in which the processes associated with an underlying data source cannot be independently verified or observed, the measurement service shall develop some means to obtain the necessary assurance on the quality of this foundational data, with evidence that these controls are adequate for the task and functioning as intended (3.1.2.1, 3.1.2.2)
- Disclosure is required when an underlying data source is not an industry recognized trusted provider (e.g. US Census), and cannot be independently verified. (3.1.2.1, 3.1.2.2)
- Sampling error shall be disclosed for estimates that are projected to represent venue/Screen Traffic, but this is not required for estimates based solely on census counts. (3.1.2.3)
- In instances where non-probability sampling techniques are used it is recommended that some form of calibration to probability-based data be performed to help eliminate potential biases. (3.1.2.3)
- Response rates shall be compiled and reported and these rates should be reasonable. (3.1.2.3)
- Survey instruments used for tabulation of results shall be subject to editing (and if necessary, ascertainment) which is appropriate and supported by appropriate empirical justification by the measurement organization. (3.1.2.3)
- Survey instruments removed from tabulation for quality reasons shall be retained for a period equivalent to the business usability of the results, and no less than twelve months, and the measurement organization should periodically check these for appropriateness. (3.1.2.3)

- Data collection processes shall have adequate surrounding internal controls to prevent material errors and these controls should be verified by periodic internal validation procedures. (3.1.2.3)
- Data collection shall be executed with sufficient sample and in sufficient frequency to be considered representative of data reported. (3.1.2.3)
- If Dwell Time for respondents is established through technology-based means, the accuracy of the techniques shall be established through rigorous periodic testing with general accuracy rates described to measurement users... Physical or operational limitations of the technical tool should be disclosed (3.1.3.1)
- Known variations in traffic that lead to audience variations shall be described to users of measurement data and accounted for in projections of samples or other forms of measurement (3.1.3.1).
- Dwell Times shall be measured with sufficient frequency to ensure they are representative of reported behavior keeping in mind such factors as time of day, day of week, seasonality, and other variables that may cause variation (3.1.3.1).
- If the ad Loop does not run continuously, then a measurement organization needs to study and account for differences in respondent behavior and/or Dwell Times for content versus advertisements. This may necessitate collection of Ad-based Traffic, View and Dwell Time, rather than simply generalizing these from total screen metrics. (3.1.3.2)
- Methods for establishing unduplicated Reach counts shall be disclosed and periodically tested for effectiveness (3.1.3.3)
- Syndicated measurement services shall strive to conduct research in a manner that allows for the calculation of Reach and Frequency estimates across media networks based on empirical data, and not solely derived through modeling processes. The measurement should be sufficiently granular, and consistent, in terms of reporting period (e.g. daily, weekly, etc.) with data reported for other media to allow for cross-media comparisons. (3.1.3.3)
- In general, a measurement organization must directly collect at least a portion of the actual characteristics of Screen Audience – i.e., attribution methods cannot be used as the sole source of assigning audience characteristics (3.2.1).
- Attribution techniques shall be subjected to periodic re-affirmation testing over time, since audience behavior and audience levels by characteristic can change. (3.2.1)

4 Digital Place-Based Media Measurement Specifics

4.1 Measurement Approaches

An interesting but complex area of Digital Place-Based media is the varied nature of measurement techniques used. Almost all Digital Place Based Networks depend on a combination of measurement techniques and these techniques vary

among Networks. Some rely on third party sources of Traffic data and other audience information, and others rely solely on third-party measurement organizations that may themselves depend on third party sources for certain of their data. The following presents a summary of most of the techniques employed. If a specific technique is not presented here, the Network and measurement organization should use the concepts expressed herein to develop controls and disclosures for their technique.

Passive measurement methods are acceptable when feasible, and in many situations are preferred, though passive measurement is not a requirement under these Standards. When seemingly passive measurement technologies require involvement or action by a respondent or panelist, it is incumbent on the measurement service to employ sufficient techniques to ensure each individual complies with the assigned tasks; otherwise the potential benefit of passive measurement will be rendered less effective.

Note that not all of the methods are necessarily applicable to each of the component metrics (e.g. Venue Traffic, Screen Traffic etc.), and that each method, regardless of whether it be a technology based solution or dependent on respondent recall has inherent limitations that should be studied and disclosed.

As it relates to counting techniques, whether census or sample, more passive observational techniques are preferred because of the likely minimization of non-response.

Venue and Screen Traffic

- Third-party Source Data
- Industry or Government Data
- Electronic counts from cameras, sensors, beacons, or similar devices
- Manual Counts – Census
- Projected Manual Counts – Sample (must be very rigorous and comprehensive in coverage)
- Respondent Recall; Surveys/Interviews
- On-Site Surveys/Interviews

Important Note: The DPAA’s Guidelines for Audience Metrics state (p.20): “...venue traffic may be used to estimate finer geographic breakdowns of Screen/Panel Traffic (or Screen/Panel Audience) such as for individual markets or venues.” We believe such geographic refinement approaches should only be used when venue traffic data are independently audited and based on comprehensive (census) traffic measurement of all venues.

Audience, Including View

Average Unit Audience

- Technology-Based Measurement Tools
- Manual Counts – Census

- Projected Manual Counts – Sample (must be very rigorous and comprehensive in coverage)
- Respondent Recall; Surveys/Interviews

Ad Units

- Respondent Recall; Surveys/Interviews of Specific Ad Awareness
- Technology-Based Measurement Tools focused on Ad Activity
- Projected Manual Counts – Generally Executed at the Time of Consumption and Generally Sample Based

Dwell Time

- Respondent Recall; Surveys/Interviews
- Manual Counts – Census with Time Stamps
- Projected Manual Counts – Sample, Generally Executed at the Time of Consumption
- Technology-Based Measurement Tools with Time-Stamps

Reach

- Respondent Recall; Surveys/Interviews
- Projected Manual Counts – Sample Based
- Technology-based measurement

Frequency

- Almost Exclusively Respondent Recall Based, Due To Difficulty in De-duplicating Activity
- Technology-based measurement

Other General Topics, Not Covered Elsewhere:

Universe Definitions

A geographic universe or coverage definition stated on the basis of population amounts is required for Digital Place-Based Networks subject to measurement. These may be customized (or limited) based on the specific attributes of the network and the associated Venue Traffic. In some cases a customized universe can be stated or a general population estimate (e.g., US Census estimates) for media comparability purposes.

The source used for such universe definitions must be referenced and should be from generally accepted independent industry or governmental third-party sources. These figures are critical for the projection of audiences. This data shall be updated at regular periodic intervals and preferably be stated on a basis that corresponds to the audience targets and weighting variables being employed by the measurement organization.

In certain situations universe estimates relative to the audience being measured are less relevant, and in instances where this is material disclosure is warranted

so that users can understand the possible impact on certain measures (e.g. GRP's). An example is airports, where there is a large transient population that is not represented in standard universe estimates for that locale. Any adjustments to universe estimates to account for these situations shall be supported by empirical evidence and disclosed.

Demographic Parameters

A standard recommended list of commonly used demographic (and geographic) breaks for measurement and reporting has been compiled by the DPAA in its 2008 Audience Metrics Guidelines. These should be matched with data collection instruments, data adjustment procedures, weighting and reporting procedures to ensure that any distortion of demographic and geographic data reported to measurement users is minimized.

Additional demographic or geographic breaks are permitted for highly targeted Digital Place-Based Networks, however the source of this information within data collection should be disclosed.

The ultimate goal in demographic measurement should be to ultimately provide breaks for subsequent campaign target analysis that are commonly available on currencies used for other media.

Viewable Impressions

Viewable impressions are becoming the currency for digital Internet and mobile measurement – ensuring the Opportunity-to-See a digital advertisement, rather than just that the advertisement was digitally served. In the digital environment video ads are considered viewable when at least 50% of the ad's pixels are visible in the viewable space of the browser for 2 continuous seconds or more, which is independent of someone having seen or "looked at" the ad. Viewability pertains solely to the availability of content thereby allowing for the possibility of exposure.

Viewable adjustment measures applied for Digital Place-Based media are expected to conform to the requirement for digital video in that it represents an Opportunity-to-See, rather than confirmation that someone has seen the ad. Additional study may be warranted to determine whether the qualifying thresholds utilized for digital video (i.e. 50% of pixels for 2 seconds) should be adjusted for Digital Place-Based media, though until such study occurs the then current digital video viewability thresholds should be applied.

In order to be counted in audience for program content both Presence and view are required; viewability ensures that content is rendered in a manner that allows individuals to be exposed to, or view the content and/or ads.

Audio Audibility Standards are in process of being developed, and once established we expect the same requirements would apply to Digital Place-Based media until additional study suggests otherwise.

Establishing View

The measurement of View is inherently difficult, thereby requiring direct observational techniques or techniques that survey and measure a respondent's recall of the screen. These techniques shall be subject to rigorous study, evaluation, and ongoing internal controls to ensure errors are minimized and that they remain accurate over time.

Recall methods to establish view are generally not acceptable and should be utilized in only limited circumstances to avoid the possibility of respondent mis-reporting. Recent recall surveys that are well controlled and executed within a reasonable period of time after exposure to the event can yield an acceptable measure, and it is recommended that these surveys be administered in conjunction with aided recall techniques, and coupled with a survey that is not overly demanding of the respondent.

Use of ESOMAR Global Guidelines VAC Adjustments

An accepted technique for out-of-home posters (static non-video content) is the use of an estimator for the likelihood of an individual to look at a piece of content, referred to as a Visibility Adjusted Contact (VAC). If this type of estimator is used by a Digital Place-Based measurement organization, it should be customized to the environment and supported by periodic study and evaluation. The use of a VAC type estimator should be disclosed and quantified by the measurement organization to measurement users.

Individuals that are In Motion during Dwell Time

If the screen and/or Screen Audience is in motion when the Screen Audience is in the screen zone, this motion should be considered in the development of levels of View. Motion patterns, where relevant, shall be studied and accounted for as part of information gathering about audiences exposed to content and advertising.

4.2 Data Quality, Completeness and View Requirements

Transparency is a highly encouraged general principle; when in doubt, disclose a situation fully to measurement users. For organizations subject to MRC auditing, transparency is a requirement.

It is preferred, but not required, that measurement source-data be gathered and compiled by third-party sources, such as independent organizations specializing in measurement.

As stated previously Venue Traffic is not sufficient as a source of audience data since it does not account for Exposure or View, and similarly Screen Traffic is incomplete as a measure of audience data, since while it does qualify for exposure, it does not account for View. It is important that measurement organizations directly measure and report audiences based on Presence with Exposure, View and Dwell Time with disclosures related to the accuracy of each of these metrics.

Where third-party sources are used for gathering Traffic estimates, or other significant measurement source-data, the procedures used to gather this data should be known and the accuracy of these procedures shall be periodically assessed by the measurement organization reliant on the data. A measurement organization cannot delegate away its responsibility for the accuracy of underlying data.

Probability sampling is a requirement for projecting traffic and audience data to populations and for computation of sampling error. Non-probability samples will be assumed to lead to non-generalizable results with the burden of proof otherwise being on the measurement organization. Sample frames shall be representative of the populations targeted for measurement. Significant omissions from the sampling frame shall be disclosed and quantified.

Seasonality and time-zone equalization are issues to be considered when accumulating and projecting measurement results, as well as variations that may occur by day of week and time of day.

Response rates shall be captured and disclosed and specific research processes should be employed on a continuous basis to minimize non-response.

Organizations shall have sufficient internal controls over all aspects of measurement data collection, processing, data adjustment, weighting and reporting to minimize error and ensure adequate disclosure.

We encourage compliance with the MRC Minimum Standards for Media Rating Research (published by MRC, Last modified in 2011), available at www.mediaratingcouncil.org in the creating of Digital Place Based measurement data. We also encourage independent external auditing, such as that conducted by the MRC, for measurement organizations.

4.3 Inferences, Estimation, Ascription, Projection of Measurement Data

Inferences made about Digital Place-Based data in estimation, ascription and projection processes and the size and impact of adjustments made, as part of data collection by the Digital Place-Based media measurement organization, shall be fully described and shall be based on systematic and reasonable procedures supported by underlying empirical studies.

Inclusion in the Screen Audience shall not be assumed based on mere Presence at a venue or Screen; evidence of screen view with appropriate Dwell Time while meeting the viewability requirement shall be the basis for inclusion in Screen Audience and for the specific development of Average Unit Audiences.

4.4 Data Editing and Adjustment

Data Editing and Adjustment procedures can be critical to processing audience measurement data. These procedures can be a part of best practices for ensuring complete and consistent measurement results over time. However, the specific data adjustment and editing parameters used shall be supported by empirical justification based on prior study.

The volume/extent of editing and adjustment to originally collected traffic and respondent data shall be disclosed, where this volume is material to the total (generally if that exceeds 5% of records). These disclosures should be granular by type and reported on the basis of weighted and reported characteristic.

If editing or adjustment rates are only periodically measured, this measurement should be frequent enough to be pertinent to reported data.

4.5 Frequency of Measurement

Many Digital Place-Based Networks employ periodic, not continuous, measurement processes. The frequency of measurement, including the age of the basis for all measurements in each report, shall be prominently disclosed to measurement users.

Less frequent measurement, particularly as it ages, is less valuable to users of the measurement data. Measurement organizations are encouraged to measure as frequently as possible to minimize the potential for unknown changes in results, and measure all reported sources during each measurement interval.

4.6 Summary of Requirements for Syndicated Audience Measurers (Measurement Specifics)

The following summarizes requirements noted within the narrative portion of Section 4 of these Standards that Syndicated Audience measurers are expected to adhere to. While all measurers, including those who provide custom reporting for a single entity (i.e., non-syndicated) should follow the practices prescribed in this document, there are certain fundamental requirements that should be applied by syndicated products, as noted below.

- The source used for such universe definitions must be referenced and should be from generally accepted independent Industry or governmental third-party sources. These figures are critical for the projection of audiences. This data shall be updated at regular periodic intervals and preferably be stated on a basis that corresponds to the audience targets and weighting variables being employed by the measurement organization (4.1).
- Any adjustments to universe estimates shall be supported by empirical evidence and disclosed. (4.1)
- A standard recommended list of commonly used demographic (and geographic) breaks for measurement and reporting has been compiled by the DPAA in its 2008 Audience Metrics Guidelines. These should be matched with data collection instruments, data adjustment procedures, weighting and reporting procedures to ensure that any distortion of demographic and geographic data reported to measurement users is minimized. (4.1)
- The measurement of View is inherently difficult, thereby requiring direct observational techniques or techniques that survey and measure a respondent's recall of the screen. These techniques shall be subject to rigorous study, evaluation and ongoing internal controls to ensure errors are minimized and that they remain accurate over time. (4.1)
- If the screen and/or Screen Audience is in motion when the Screen Audience is in the screen zone, this motion should be considered in the development of levels of View. Motion patterns, where relevant, shall be studied and accounted for as part of information gathering about audiences exposed to content and advertising. (4.1)
- It is important that measurement organizations directly measure and report audiences based on Presence with Exposure, View and Dwell Time with disclosures related to the accuracy of each of these metrics. (4.2)
- Where third-party sources are used for gathering Traffic estimates, or other significant measurement source-data, the procedures used to gather this data should be known and the accuracy of these procedures shall be periodically assessed by the measurement organization reliant on the data. A measurement organization cannot delegate away its responsibility for the accuracy of underlying data. (4.2)
- Probability sampling is a requirement for projecting traffic and audience data to populations and for computation of sampling error. (4.2)
- Sample frames shall be representative of the populations targeted for measurement. Significant omissions from the sampling frame shall be disclosed and quantified. (4.2)
- Response rates shall be captured and disclosed and specific research processes should be employed on a continuous basis to minimize non-response. (4.2)
- Organizations shall have sufficient internal controls over all aspects of measurement data collection, processing, data adjustment, weighting, and reporting to minimize error and ensure adequate disclosure. (4.2)
- Inferences made about Digital Place-Based data in estimation, ascription and projection processes and the size and impact of adjustments made, as part of

data collection by the Digital Place-Based media measurement organization, shall be fully described and shall be based on systematic and reasonable procedures supported by underlying empirical studies. (4.3)

- Inclusion in the Screen Audience shall not be assumed based on mere Presence at a venue or Screen; evidence of screen view with appropriate Dwell Time while meeting the viewability requirement shall be the basis for inclusion in Screen Audience and for the specific development of Average Unit Audiences. (4.3)
- Specific data adjustment and editing parameters used shall be supported by empirical justification based on prior study. (4.4)
- The volume/extent of editing and adjustment to originally collected traffic and respondent data shall be disclosed, where this volume is material to the total (generally if that exceeds 5% of records). (4.4)
- The frequency of measurement, including the age of the basis for all measurements in each report, shall be prominently disclosed to measurement users. (4.5)

5 Enhancing Digital Place-Based Audience Measurement Accuracy

5.1 Filtration for Non-Human Activity

If technical tools are used to establish traffic to venues, screens, or within screen zones the measurement organization shall have controls to ensure this traffic is solely representative of human respondents. This requirement is also applicable to audience measurement and attribution methods.

5.2 Error Correction and Reissue Policies

A measurement organization shall have internal controls to catch and disclose material errors in its measurement production processes. Objective, prescribed policies should be promulgated by the measurement organization for determining the materiality of errors discovered. If material errors are noted, these should be disclosed to measurement users through written notices and reissued data.

An organization shall distinguish reissued data from original data through prominent labeling. Reissues should be tracked and available to users of the measurement data, including both sell-side and buy-side users.

Evidence supporting material errors discovered shall be retained for at least one year following the measurement period. Errors discovered that are not sufficiently material for disclosure should be retained for a similar period, to facilitate evaluation by auditors and other external parties where necessary.

5.3 Summary of Requirements for Syndicated Audience Measurers (Enhancing Accuracy)

The following summarizes requirements noted within the narrative portion of Section 5 of these Standards that Syndicated Audience measurers are expected to adhere to. While all measurers, including those who provide custom reporting for a single entity (i.e., non-syndicated) should follow the practices prescribed in this document, there are certain fundamental requirements that should be applied by syndicated products, as noted below.

- If technical tools are used to establish traffic to venues, screens, or within screen zones the measurement organization shall have controls to ensure this traffic is solely representative of human respondents. (5.1)
- A measurement organization shall have internal controls to catch and disclose material errors in its measurement production processes. (5.2)
- If material errors are noted, these should be disclosed to measurement users through written notices and reissued data (5.2).
- An organization shall distinguish reissued data from original data through prominent labeling. (5.2)
- Evidence supporting material errors discovered shall be retained for at least one year following the measurement period. Errors discovered that are not sufficiently material for disclosure should be retained for a similar period, to facilitate evaluation by auditors and other external parties where necessary (5.2)

6 Reporting Parameters

6.1 Data Access

It is strongly recommended that a measurement organization make its data accessible in a manner that facilitates user access, independent of its proprietary electronic delivery tools. In general data should be produced in a standardized electronic format that can be delivered to users for use in their internal systems or by a third party processor of their choice, provided any necessary licensing requirements are satisfied. It is recommended that data be provided to external sources in a granular form rather than at a summary level that can restrict usage and limit custom analysis. The nature of the granular data shall be such that the identification of individual respondents is protected.

This information should be available no later than when the reported data is officially released, and ideally in advance to any licensed third party processors to allow sufficient time to load the data and perform the necessary checks for data accuracy and completeness prior to the official data release date. Summary level information shall also be provided to licensed third party processors for checking purposes.

6.2 General Parameters

General reporting parameters (dayparts, weekparts, time zones, etc.) provide for consistency and comparability. These should be based on the logical application of information about the usage patterns of the medium.

In order to provide for more standardization in Digital Place-Based media Audience measurement reporting, the following general reporting parameters are recommended. Note that these are only several of the possible reporting parameters that may be used. If parameters in addition to these are reported, similar rules should be defined and applied.

Measurers should seek to align each of the reporting parameters so that they are consistent, to the extent possible, with parameters reported for existing measured media to allow for a direct comparison to other media and facilitate multi-media analysis.

6.2.1 Time

Day — 12:00 midnight to 12:00 midnight

Time Zone – Full disclosure of the time zone used to produce the measurement report is required. It is preferable, although not a current compliance requirement, for certified measurement organizations to have the ability to produce measurement reports in a consistent time zone so buyers can assess activity across measurement organizations. For US-based reports it is recommended that reports be available on the basis of the Eastern Time zone; for non US-based reports this is recommended to be GMT.

Week — Monday through Sunday

Week-parts — M-F, M-Sun, Sat, Sun, Sat-Sun

Month – Three reporting methods: (1) TV Broadcast month definition. In this definition, the Month begins on the Monday of the week containing the first full weekend of the month, (2) 4-week periods – (13 per year) consistent with media planning for other media, or (3) a calendar month. For financial reporting purposes, a month is defined as a calendar month.

Additional Recommendation: Dayparts – Digital Place-Based media usage patterns need further analysis to determine the usefulness of establishing effective and logical standardized reporting dayparts. We encourage such analysis to determine the need for standardization of this measurement

parameter, and to the extent possible be consistent with reporting for other media.

6.2.2 Location

Locations reported, if reported, in Digital Place-Based media audience reports should be the actual physical locations of the venue and/or screen as applicable. If assumptions are made about physical locations of audience members or screens, these shall be described. Accuracy of assumptions made shall be established by empirical study and disclosed to users of measurement data.

If electronic means are used to establish the location of Venue Traffic or Screen Audience members (i.e., IP geo-location, mobile-device location services, meter placement, etc.), the accuracy of these functions shall be established and disclosed. These methods shall be validated to be appropriately accurate at the levels of granularity being employed.

6.2.3 Segregating Non-Like Ad Content or Activity

For reporting purposes, users shall have the ability to segregate measurement by the various types of ads or events included in the campaign. Additionally, counts should be reported separately for ads within the campaign of different sizes or functionalities, different brands, different brand sub-components, etc.

6.3 Summary of Requirements for Syndicated Audience Measurers (Reporting)

The following summarizes requirements noted within the narrative portion of Section 6 of these Standards that Syndicated Audience measurers are expected to adhere to. While all measurers, including those who provide custom reporting for a single entity (i.e., non-syndicated) should follow the practices prescribed in this document, there are certain fundamental requirements that should be applied by syndicated products, as noted below.

- The nature of the granular data shall be such that the identification of individual respondents is protected. (6.1)
- Summary level information shall also be provided to licensed third party processors for checking purposes. (6.1)
- Full disclosure of the time zone used to produce the measurement report is required. (6.2.1)
- If assumptions are made about physical locations of audience members or screens, shall be described. Accuracy of assumptions made shall be established by empirical study and disclosed to users of measurement data. (6.2.2)
- If electronic means are used to establish the location of Venue Traffic or Screen Audience members (i.e., IP geo-location, mobile-device location services, meter placement, etc.), the accuracy of these functions shall be established and disclosed. (6.2.2)

- For reporting purposes, users shall have the ability to segregate measurement by the various types of ads or events included in the campaign. Additionally, counts be reported separately for ads within the campaign of different sizes or functionalities, different brands, different brand sub-components, etc. 6.2.3

7 Screen Classification

The Digital Place-Based media industry should strive to maintain a uniform set of classification specifications of device types, location types, environmental factors, and other characteristics expected to exert some influence on audience metric components such as Opportunity-to-See, exposure, viewability, or audibility. The classification schema should be sufficiently granular to account for meaningful differences associated with each of the characteristics, though it need not demand precision to the point where the information becomes unwieldy and cannot be sufficiently maintained..

The specifications should be developed through collaboration with the Digital Place-Based media providers in co-operation with all industry constituency and housed within an independent body that is assigned the responsibility to maintain the information, and administer a routine process for monitoring industry changes and instituting revisions when appropriate. Media buyers, including Advertisers and Agencies should also be actively involved to ensure classification information is structured to meet marketplace needs. Digital Place-Based media owners are encouraged to actively participate in this process since their information forms the foundation of the measurement process and the resulting data set.

The complete set of classification criteria and specifications should be assessed for continued relevance at least annually, with a more frequent review for characteristics subject to more rapid change due to evolving technologies, new entrants, or forms of delivery, and environmental factors. Digital Place-Based media owners are responsible for ensuring the data are complete and accurate for their properties, and submitting changes commensurate to when they occur, at minimum on a weekly basis, noting the exact date of the change. The complete set of classification data should be subject to independent audit.

Measurement organizations should also be consulted as part of this process since many of the characteristics will be utilized in statistical modeling and visibility adjustment processes. New entrants are encouraged to participate at the early development stage to help ensure conformity to existing criteria and contribute toward defining possible new variable requirements.

The following list contains a set of characteristics for consideration and this information should not be viewed as exhaustive. These variables are intended to provide guidance to the entity responsible for establishing and maintaining the screen

classification data-set, and that body should work with the industry to define the detailed specifics of each criteria.

- Media owner including contact information
- Description (including venue type and area of screen placement)
- Precise geographic location (Latitude/Longitude) for venue and for each screen within the venue
- Orientation details
- Screen Size
- Video and Audio capability and quality (Resolution & decibel level)
- Known limitations or obstructions
- Description of the environment
- Stationary or mobile
- Ad Clutter (including digital and also static signage in the vicinity)
- Ad to Program display ratio (i.e. partial screen ads or banners)
- Screen elevation
- Free Space surrounding / Aisle / Wall mounted / In Store
- Other Functionality in the Screen (Map interaction / Wi-Fi Spot / Battery Charger....)
- Traffic environment of area: Captive audience / Passing / Corridor / etc.
- Days and times of operation including *:
 - Per timeframe/Weekday/Weekend/Season
 - Loop length (typical)
 - Ad Length (typical)
 - The type of programming & ads (Digital Static/Dynamic/Slight movement/Full Video)...

* A 10 second spot within a 60 second Loop is different from a 40 second spot in a 4-minute Loop. This enables the computation of the standard probability of exposure or contact. This computation (VAC) must be updated for any change or modification of those screen classification parameter involved.

Precise venue maps to scale including dimensions and exact screen positions/orientations are considered valuable in addition to precise geographic location (Latitude/Longitude) of each venue and each screen within the venue in order to establish Visibility Zones for each screen. It is noted that technology exists for the detailed mapping of indoor spaces, like malls, that can be precisely related to traffic flow/mobility and visibility in each and every corridor. The use of such technologies is encouraged to enhance accuracy and precision of measurement and the final results.

“The map position must be transferred to the same co-ordinate baseline as that used for mobility modelling, if large errors are not to occur, especially when applying visibility adjustment.” ESOMAR GGOoHAM V 1.0

The screen classification system should also contain detailed information on situations in which multiple screens in a network or networks are co-located in close proximity to

one another, including the number and characteristics of each, as well as the distance from one another so that this information can be accounted for when calculating audience estimates by Screen and for the network as well as for de-duplication purposes.

Standards should be established to enable the electronic transfer of screen classification information, including routine updates, in a consistent manner in order to facilitate the flow of information and reduce the the likelihood of human error.

8 Disclosure Guidance

Digital Place-Based media measurement organizations should fully disclose their Venue Traffic, Screen Traffic and Screen Audience Measurement activity recording process to buyers and other users of the measurement data. An organization's methodology for accumulating Digital Place-Based media advertising audience measurements shall be fully described to users of the data, including methods for calculating unit audiences where applicable. Specifically, the nature of counts and/or measurements, methods of sampling used (if applicable), data collection methods employed, data editing procedures or other types of data adjustment or projection, calculation explanations, reporting standards (if applicable), reliability of results (if applicable) and limitations of the data shall be included in the disclosure.

The following presents examples of the types of information disclosed.

Nature of Digital Place-Based Media Audience Measurements

- Name/Type of Venue and Screens Included in the Measurement, including Screen Classification Parameters
- Name of Measurement Report
- Measurement Period
- Type of Measurements Reported
 - Time Periods Included
 - Days Included
 - Universe Estimates and Coverage Estimates used for Projection
 - Basis for Measurement (Measurement Unit)
 - Venue or Geographic Areas
 - Significant Sub-Groupings of Data
 - Demographic categories
- Formats of Reported Data
- Special Promotions Impacting Measurements
- Auditing Applied and Directions to Access the Audit Report
- Sampling/Projections Used
 - Sampling Methods Used
 - Explanation of Projection Methods

Data Collection Methods Employed

- Method of Data Collection
- Venue Level Data
- Screen Level Data
- Audience Qualifiers, Views Specifics, etc.
- Types of Data Collected
 - Surveys, Diary, Observations, Electronic Measurements, etc.
 - Frequency of Collection
- Contacts with Users (if applicable)
- Research on Accuracy of Basic Data
 - Latency Issues with Periodic Measurement, As Applicable
- Rate of Response (if applicable)

Editing or Data Adjustment Procedures

- Checking Records for Completeness
- Consistency Checks
- Accuracy Checks
- Rules for Handling Inconsistencies
- Circumstances for Discarding Data
- Handling of Partial Data Records
 - Ascription Procedures

Computation of Reported Results

- Description of How Estimates are Calculated
 - Illustrations are desirable
- Weighting Techniques (if applicable)
- Verification or Quality Control Checks in Data Processing Operations
- Pre-Release Quality Controls
- Reprocessing or Error Correction Rules

Reporting Standards (if applicable)

- Requirements for Inclusion in Reports, Based on Minimum Activity Levels
- Demographic and Geographic Breaks Reported – See DPAA Audience Metrics Guidelines for recommended breaks

Reliability of Results

- Sampling Error (if applicable)

Data retention rules

- Maintaining sufficient data or processes that allow for audit trail

Limitations on Data Use

- Non-sampling Error
- Errors or Unusual Conditions Noted in Reporting Period
- Limitations of Measurements

8.1 Summary of Requirements for Syndicated Audience Measurers (Disclosure)

The following summarizes requirements noted within the narrative portion of Section 8 of these Standards that Syndicated Audience measurers are expected to adhere to. While all measurers, including those who provide custom reporting for a single entity (i.e., non-syndicated) should follow the practices prescribed in this document, there are certain fundamental requirements that should be applied by syndicated products, as noted below.

- An organization's methodology for accumulating Digital Place-Based media advertising audience measurements shall be fully described to users of the data, including methods for calculating unit audiences where applicable. Specifically, the nature of counts and/or measurements, methods of sampling used (if applicable), data collection methods employed, data editing procedures or other types of data adjustment or projection, calculation explanations, reporting standards (if applicable), reliability of results (if applicable) and limitations of the data shall be included in the disclosure. (8)

9 Auditing Guidelines

9.1 General

Third party independent auditing is encouraged for all Digital Place-Based media audience measurements used in the buying and selling process. This auditing is recommended to include counting methods, surveying and measurement methods for audience view and processing/controls as follows:

1. Counting Methods: Independent verification of activity for a defined period. Counting method procedures generally include a basic process review and risk analysis to understand the measurement methods, analytical review, transaction authentication, validation procedures and measurement recalculations.
2. Survey/Measurement Methods: Independent verification of activity to convert Venue Traffic to Screen Traffic and Screen Audience, including the establishment of screen level exposure zones. These procedures generally include process reviews, methods to ensure accurate representation from Venue Traffic, qualifiers applied and testing of application of these qualifiers for inclusion in Screen Traffic and Audiences, transaction authentication, validation of weighting and projection procedures and measurement recalculations.

3. Processes/Controls: Examination of the internal controls surrounding all phases of the measurement process. Process auditing includes examination of the adequacy of applied counting and qualification techniques. Although audit reports can be issued as infrequently as once per year, some audit testing should extend to more than one period during the year to assure internal controls are maintained. Audit reports shall clearly state the periods covered by the underlying audit testing and the period covered by the resulting certification.

Third party data providers, including independent Operators and media entities that supply information that is foundational to measurement should also be subject to independent audit. These audits should be designed to verify the completeness and accuracy of the information, and the extent to which the information is representative, as well as examine controls surrounding the collection, maintenance, processing, and the reporting of the information.

Similarly, as noted in the Screen Classification section of this document (Section 7), classification information, and the underlying sources contributing to the data set, should be subject to independent audit and these should be conducted at least annually, as recommended for U.S. certifications.

9.2 U.S. Certification Recommendation

All Digital Place-Based media audience measurement products used in the buying and selling process, inclusive of the underlying data sources they depend on, are recommended to be certified as compliant with these Standards, at minimum annually. This recommendation is strongly supported by the 4As and other members of the buying community, for consideration of measurements as “currency.”

In addition to MRC and its congressional supported certification process for the media industry, there are a number of other certifiers and types and levels of certification available to organizations involved in Digital Place-Based media measurement.

Special Auditing Guidance for Advertising Agencies or Other Buying Organizations:

If buying organizations modify or otherwise manipulate measurements from certified Digital Place-Based media audience measurement organizations upon receipt, auditing of these activities should be considered.

10 Who We Are

About the Media Rating Council (MRC)

The MRC is a non-profit Industry association established in 1964 comprised of leading television, radio, print and Internet companies, as well as advertisers, advertising agencies and trade associations whose goal is to ensure measurement services that are valid, reliable and effective. Measurement services desiring MRC Accreditation are required to disclose to their customers all methodological aspects of their service; comply with the MRC's *Minimum Standards For Media Rating Research*; and submit to MRC-designed audits to authenticate and illuminate their procedures. In addition, the MRC membership actively pursues research issues they consider priorities in an effort to improve the quality of research in the marketplace. Currently, approximately 90 syndicated research products are audited by the MRC. For more information, visit www.mediaratingcouncil.org.

11 References

- CODACAN DOOH Audience Metrics Guidelines – September 2009
- DPAA Audience Metrics Guidelines - August 8, 2008
- ESOMAR Global Guidelines on Out-of-Home Audience Measurement Version 1.0 - May 2009
- OVAB Europe Standards DooH Audience Measurement –January 2013

12 Contact Us

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