Outdoor Advertising Association of America

DIGITAL PLACE-BASED OUT OF HOME STANDARDS AND PRACTICES

Table of Contents

Introduction 2

Audience Measurement 2

- Audience 2
- Screen Traffic: Presence 2
- Screen Audience: Presence with Notice 2
- Average Unit Audience 3
- Reach and Frequency 3
- Data Reporting 3
- Venue Traffic 3

Media Metrics 4

- Visit/Exposure 4
- Dwell Time 5
- Reach 5
- Frequency 6

Technical Information 6

- Digital Aspect Ratio 6
- Security 7

Privacy 7

- Risk levels 8
- Disclosure 8

Business Practices 9

- OAAA Standards 9
- Code of Conduct 9

Introduction

Digital place-based out of home can be found in diverse venues. While a single audience metric system could not cover all OOH, the following is a set of guidelines and best practices to provide comparable metrics that can be adapted to a variety of venues and networks. These guidelines are based on research by the Outdoor Advertising Association of America (OAAA) the Digital Place-Based Advertising Association (DPAA), and the Point of Purchase Advertising Institute (POPAI).

Audience Measurement

Audience

Audience is the source of most key metrics of media planning and buying. Audiences are expressed differently for dynamic media such as television versus static media such as traditional billboards. The latter count exposures, while the former count exposures per time unit. Digital place-based OOH requires a dynamic measure to be comparable to other video formats. Due to variations in unit time length and content environment, a single time unit would not be appropriate for all networks.

Audiences should be expressed as the average audience for a unit of time equal to a typical advertising unit. This is not a measure of advertising audience, which would be a measure of the viewers of a specific ad. It is a measure of the viewers for a unit of time equal to the typical advertising unit. This metric is called opportunity to see (OTS).

Static OOH displays, such as billboards and bus shelters, have audience data that moves beyond OTS. OOH Ratings, developed by the Transit Audit Bureau (TAB), use travel patterns and eye-glance data along with daily effective circulation (the traditional OTS measure) to arrive at likelihood to see (LTS) metrics.

OTS for digital place-based OOH networks is based on three characteristics: presence, notice, and dwell time. A person must be present in a location from which the screen is both visible and, where appropriate, audible. Digital place-based OOH is unlike traditional television in that there is not always an intention to view as a person encounters the screen. To account for this difference, an additional qualifying characteristic is required – evidence that the screen has been noticed. The dwell time, or time spent in the location, must be measured to enable the calculation of persons per time unit. Combined, presence, notice, and dwell time provide a person an opportunity to see.

Screen Traffic: Presence

The most basic qualification for audience exposure is to be in the presence of the screen or in the screen zone. For a screen with sound, this means being in a location from which it is audible. In all cases it requires being in a location from which the screen is visible. The level of precision where screen zones are defined may vary.

Screen traffic is the number of people present in the screen zone and may be counted directly, either manually or electronically, and then projected to the total population of the network's coverage area. Or, it may be estimated as a proportion of the venue traffic and projected based on third party venue traffic estimates.

Screen Audience: Presence with Notice

Presence in a location from which the screen is visible (and audible) for a sufficient dwell time is still not enough to qualify an OTS. Consumers approach traditional media with an intention to view, read, or listen. The assumption that they are viewing, reading, or listening when in the presence of the screen is, therefore, reasonable, though offers no assurance of exposure to specific ads.

Consumers sometimes approach digital place-based out of home by chance, with another mission in mind. The screen must be noticed before the assumption of OTS can be deemed reasonable. Notice is defined as having looked at the screen during the time for which the person was present. This provides for a measure of screen exposure, not ad exposure.

In practice, this could be measured in a variety of ways. Notice is difficult to observe without the aid of technology such as a head camera, eye tracking devices, facial recognition software, or retina detection. More commonly, notice is based on the respondents' claim during interviews following the event.

The proportion of screen traffic which notices the screen is the screen audience. It is defined as the number of people who looked at the screen while in the screen zone.

Average Unit Audience

Average unit audience should be the currency metric for digital place-based OOH. Average unit audience is defined as the number and type of people exposed to the media screen with an opportunity see a unit of time equal to the typical advertising unit. Unit in this context always means the duration of the network's typical ad unit.

Presence with notice is not enough to produce a dynamic metric such as the average minute or average quarter-hour employed by traditional television. Dwell time in the screen zone must also be measured to provide a measure of presence, with notice, during a time interval equal to the length of the typical ad unit. Screen zone dwell time is defined as the number of seconds the viewer is in the screen zone with notice.

The screen 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. More simply, the screen 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, or the population segment of interest. Where the rotation length, number of ads, or individual ad frequency in the commercial rotation varies, these calculations can be done on average, or to reflect each specific variation in these factors. The dwell time of multiple exposures within the unit of measurement, for the same person can be averaged. The dynamics underlying that average could be expressed as a frequency distribution of exposures and net reach.

Reach and Frequency

Reach and frequency are essential for media planning. Reach is defined as the net number, or percent, of the target audience exposed to a schedule for a single screen or screens within a defined time frame, typically four weeks, one week, or one day. Frequency refers to the frequency distribution of exposure levels among the population reached. Often the term simply refers to the average frequency of exposure rather than the full distribution. In addition to reach and frequency of a schedule for a single screen, terms may refer to the reach and frequency of a multiple screen schedule. Reach and frequency are built from the same three part standard: presence, notice, and dwell time.

Data Reporting

Data should be reported to reflect the unit of sale. The reports should include whatever aggregations of announcements are most relevant. In addition, the following data should be reported to harmonize comparisons:

- **Weekly Average Ad Unit Impressions**: Average weekly impressions for a single ad running over the course of an entire week; equal to the average unit audience, where unit means duration of the network's typical ad unit, times the number of occasions the ad runs in the course of a week.
- **Weekly Average Ad Unit Reach:** Net reach for a single ad running over the course of a week.

Venue Traffic

Venue traffic metrics are not acceptable as currency for digital place-based OOH. However, venue traffic may be used to estimate finer breakdowns of screen audience, such as metrics for individual markets or venues.

Media Metrics

Visit/Exposure

(Gross number of times)

	Venue	*Media Screen*	*Ad Unit*
Defined	**Venue Traffic:** Number of visitors, in the venue, for a period of time	**Average Unit Audience:** Number of visitors, of specified characteristics, in the screen zone, who noticed the screen, during a unit of time equal to the typical ad unit	**Ad Audience:** Number of visitors, of specified characteristics, in the screen visibility zone who noticed the ad
Measurement Methods	**Venue Traffic:** Third party data Transaction data Industry or government data Manual counts (passive observation) Respondent recall	**Average Unit Audience:** Apply factor to venue traffic based on ad awareness Meters or other passive counting technology Manual counts (passive observation) Respondent recall	**Ad Audience:** Apply factor based on ad awareness Manual counts (intercept interviews) Meters or other passive counting technology Respondent recall
Context	**Venue Traffic:** Necessary but not sufficiently qualified to count as screen audience, the definition of currency for most media. Used in some media to provide more detail than the available audience metrics. For example, circulation for magazines and newspapers. Traditional OOH used automotive traffic counts, but is now in transition.	**Average Unit Audience:** This is the currency metric for most media. For example, television ratings from Nielsen or radio ratings from Arbitron.	**Ad Audience:** This is the currency metric for Internet media, as measured by their own server logs. Tradition OOH is moving in this direction. Television is also moving toward commercial exposure.

Dwell Time

(How long?)

	Venue	*Media Screen*	*Ad Unit*
Defined	**Venue Visit Time:** Time spent in the venue during the total visit time.	**Screen Zone Dwell Time:** The number of seconds the viewer is in the screen zone with notice	**Ad Exposure Time:** The number of seconds spent watching and listening to the ad
Measurement Methods	**Venue Visit Time:** Respondent recall	**Screen Zone Dwell Time:** Meters or other passive counting technology Manual counts (passive observation)	**Ad Exposure Time:** Manual counts (intercept interviews) Meters or other passive counting technology
Context	**Venue Visit Time:** N/A	**Screen Zone Dwell Time:** Broadcast media use time-based metrics: average minute (television metered measurement) or average quarter-hour (television and radio diary measurement). Magazines use time-spent reading as a measure of quality, but not currency.	**Ad Exposure Time:** Television is moving to a measure of average commercial minutes for the program. There is discussion of specific commercial pods or specific commercial ratings.

Reach

(How many net people?)

	Venue	*Media Screen*	*Ad Unit*
Defined	**Venue Reach:** The net number of visitors to the venue during the average day, week, or four week period	**Screen Reach:** The net number of visitors, of specified characteristics, in the screen zone, during the average day, week, or four week period	**Ad Exposure Reach:** The net number of visitors, of specified characteristics, in the screen zone who watched and listened to the ad, during the average day, week or four week period
Measurement Methods	**Venue Reach:** Respondent recall	**Screen Reach:** Respondent recall	**Ad Exposure Reach:** Respondent recall
Context	**Venue Reach:** N/A	**Screen Reach:** Reach of a media screen in a week or four weeks is a primary measure of value which drives recency based media plans.	**Ad Exposure Reach:** N/A

Frequency

(How often per person?)

	Venue	*Media Screen*	*Ad Unit*
Defined	**Venue Visit Frequency:** Number of venue visits per visitor during the average day, week, or four week period	**Screen Exposure Frequency:** Number of separate exposures of a screen audience member, during a venue visit, or during the average day, week, or four week period	**Ad Exposure Frequency:** Number of separate ad exposures, of an ad audience member, during the venue visit, or during the average day, week, or four week period
Measurement Methods	**Venue Visit Frequency:** Respondent recall	**Screen Exposure Frequency:** Respondent recall	**Ad Exposure Frequency:** Respondent recall
Context	**Venue Visit Frequency:** N/A	**Screen Exposure Frequency:** Frequency of exposure is measured in broadcast media for weeks, or with panels over longer time frames such as four week periods. It is projected with models for all media. Frequency of viewing or reading within a period is used as a measure of engagement.	**Ad Exposure Frequency:** N/A

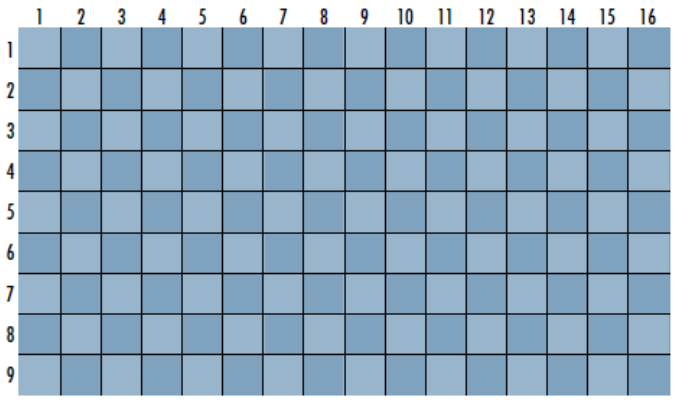
Technical Information

Digital Aspect Ratio

Having standard aspect ratios is important to the future of OOH digital advertising because it allows advertisers to quickly assemble large national purchases across many individual operators.
It also allows for the standardization of artwork production files. Standard production files will allow advertisers the flexibility to quickly adapt to market conditions with the least amount of time spent on production.

Standardization of digital products and production files will help increase digital sales.

In-Store Network - 16:9



The aspect ratio of an image is its width divided by its height.

Aspect ratios are mathematically expressed as x :y (pronounced "x-to-y") and x×y (pronounced "x-by-y").

definition provided by wikipedia.com

Art pixel dimensions should be 1920x1080. Relationship of the height to width must not exceed +/- 3 percent in any one direction to adhere to the aspect ratio.

Security

Nature of threats

An attacker does not need to gain control of your systems to do damage. They only need to disrupt normal operations.

If an attacker gains control of a system they can display whatever they want.

Areas of concern

Run applications with the minimum amount of privileges required. Disable or remove any "Easter Eggs," or maintenance backdoors. Test for overflow and injection vulnerabilities.
Most systems out of the box are not secure. You will need to perform a full review of services, accounts, and software. Remove or disable what is not needed.

All communications should be encrypted by default. Certificates or keys must be used. Each mode of communication has its own unique exposures whether it is wireless, DSL, Cable or plain old telephone service.

Lockdown and enclose each component. A lock is only a deterrent. Assume that it will be bypassed. Cases should have no external screws, route all cables internally. Expose only what you must (antenna's, touch screens, etc.) Develop automatic fallbacks if any item is compromised. A disabled system is better than a compromised system.

Social Engineering is one of the most powerful tools available to a hacker. Put polices in place that ensure that information is only revealed to those who need to know, and only through proper channels. Make sure that staff is trained in the policies, and that training is a continuous process.

Strategies for protection

Make security an integral part of your plans from the ground up. Don't rely on a single piece of software or hardware for security. Assume each device is vulnerable to attack. Just because you have a VPN does not mean your network is secure. Disable unused ports on your Ethernet switch. Disallow all network cards, except for the MAC addresses you know should be on your network.

Reduce the avenues of attack by removing all applications and services that are not needed.

Remove or disable all guest or system accounts that are not needed. Use strong passwords, change them periodically, and do not have one universal password that gives away the keys to the kingdom if compromised. Remove the easy web configuration software on your router.

Prepare a plan for patch management. Ensure you identify all items that could need security patches or firmware updates. Routers, hubs, touch screens. Every day hackers find new ways to wreak havoc. Bring an outside expert to review your security.

Make sure that staff is trained in basic policies and procedures. Only share information with known people outside the company.

Turn on logging and enable monitoring of each system that you can, and prepare for off hour notifications via e-mail or pagers.

Privacy

While technology imposes few restrictions on data collection, marketers should safeguard consumer privacy. The following are recommendations to marketers on maintaining ethical boundaries with

consumer data and suggestions on how consumer observations and marketing insights should be collected and used.

Risk levels

Before considering recommendations, it is important to understand and categorize different collection mechanisms by the degree of privacy exposure they may create for the consumer. There are three major levels of risk: low, medium, and high. Typically, low risk methods do not track individual consumers nor do such methods gather identifiable data. Medium risk methods gather individual tracking data, but do not identify consumers. High risk methods identify customers in the process of tracking them.

Low Risk Methods

- Infrared or laser beam motion detectors
- Sonar and other non-recording, sound-based motion detectors
- Overhead path tracking systems that are capable of generating on-premise, aggregate "heat maps" of consumer presence, but are not able to track or record individual consumer paths.

Medium Risk Methods

- Overhead camera-based path tracking systems or "gaze tracking" systems that are able to track and/or record individual consumer paths, but do not uniquely or individually identify consumers.
- Sensor-laden shopping carts that track and/or record individual consumer paths, but are not able to uniquely or individually identify consumers.
- RFID or other wired or wireless tracking devices knowingly worn or carried by consumers, or used on shopping carts and baskets to track consumer behavior, but are not able to personally or uniquely identify consumers.
- Any method where information can be used to collect demographic or psychographic information, but cannot be used to individually or uniquely identify consumers.

High Risk Methods

- Personally identifiable collection via mobile phone or mobile computing device via wireless (cellular, Bluetooth, etc.) connection.
- Any method capable of identifying consumers based on past purchases, loyalty card programs, or other behavioral patterns collected.
- Any camera-based system that collects and stores visual data.
- Any method used to personally or uniquely identify consumers, when combined with loyalty program data or third party marketing data.

Disclosure

Marketers must provide a disclosure notice to consumers who may be monitored (intentionally or incidentally) by data collection activities.

The disclosure notice should be easy to understand, unambiguous, and current. It should not contain any false or misleading information about the nature of the collection methods or the intended use of any collected data.

The disclosure notice should describe the collection methods in effect and whether data collected will be combined with other data including, but not limited to, register receipt information, credit card information, non-public personal information, or data collected by third party or affiliate marketers. The disclosure notice should be posted in at least one location at each site where the data collection is taking place, preferably at every entrance.

The disclosure notice itself must meet all ADA guidelines and must be free of obstructions that might inhibit visibility.

The disclosure notice must contain information about all available opt-in and opt-out mechanisms, such as a consumer-accessible telephone that can be accessed for no fee to opt out.
When data collection requires the use of a consumer's cell phone, mobile computing device, email messages, SMS text messages, or links data collection with a telephone number or Bluetooth device, marketers must also comply with the Mobile Marketing Association's Global Code of Conduct, mobile marketing laws, FTC Telemarketing Sales Rule, other FTC rules, and the National Do Not Call Registry.

Business Practices

A desire for cooperation between OOH advertising buyers and sellers has developed as a result of media consolidation. This accord, along with the continued advancement of new technologies, has presented an opportunity to identify and implement industry-wide policies to satisfy the needs of both buyers and sellers, simplify the buying process, and enable OOH advertising to be more competitive with other media.

Complete assimilation of OOH industry standards is only possible through compliance by the buyers and sellers operating within the OOH industry and a high level of commitment.

Consistent Description Information

Buyers expect prompt responses to their inquiries and thorough information before, during, and after an OOH campaign. Whenever possible, the OOH industry uses uniform business information across markets and companies.

The OOH industry provides precise location descriptions for all OOH inventories across all markets and operators.

Data Exchange

OOH advertising companies utilize the OAAA ebusiness schema for electronic data exchange. The OOH industry utilizes the AAAA Ad-ID digital identification system.

Code of Conduct

This code of conduct describes recommended practices for data collection and marketing activities.

Data Collection, Storage and Security

Collection venues that house HIPAA-compliant entities (for example, a supermarket that contains a pharmacy) must adhere to all Federal laws governing the collection and use of marketing data in and around HIPAA-compliant sites. Typically, collection methods may not be used in the HIPAA-compliant areas themselves, and special care must be taken to ensure that no method that allows for unique or individual identification of consumers is used to track consumer behavior near the HIPAA sites.

Collection mechanisms capable of uniquely identifying a minor (i.e., a consumer under 13 years of age or the age required by state or local law) cannot be used at the collection site.

In no event should image, video, or biometric data used to generate data be stored without an explicit consumer opt-in to do so. Collecting image or biometric data for marketing purposes may violate Federal, state, or local laws, including Federal Domestic Violence Laws. If collecting image or biometric data is allowed in a venue's jurisdiction, the data should be stored for up to three months or the maximum period allowed by law.

Using video or image data from surveillance, security, or loss-prevention systems may violate Federal, state, and/or local laws, is generally not recommended. If this practice is allowed by law, marketers must use separate computer systems and storage devices from those used to store the security/surveillance data. These computer systems and storage devices must be password protected with different passwords than what is used for the security/surveillance systems. Great care should be taken to protect this data against theft or unlawful access.

Any and all collected data that can be positively associated with a unique consumer should be treated as non-public personal information and must be stored on a sufficiently secure computer system, such as one that conforms to the payment card industry standards. Any data that could possibly be misused to create public safety hazards must be treated as non-public personal information and be handled as described above. Again, great care should be taken to ensure privacy of this data.

It is a violation of Federal law to use certain types of marketing data to offer special promotions to one group of consumers but not another. Marketing practices that make use of demographic or psychographic data may not be used to create promotions that vary pricing, availability or, access of an item or items or change requirements and availability of financing options, if applicable.

Cross-Channel and Cross-Domain Marketing

Cross-channel marketing occurs when data from multiple sources, such as in-store, catalogs, online, and observed tracking data are combined with the intent of tracking a consumer across multiple properties, retail environment, or other public or private spaces. Consumers should be made aware of the use of their observed data.

Cross-channel marketing is considered high risk for collection mechanisms. Therefore, consumers should opt-in before data is combined in cross-domain ways. Furthermore, the consumer should also re-opt-in to the program each time he or she enters a new venue where the cross-domain data is being collected.

Disclosure notices should be located at every collection site participating in the program and should follow all other best practices for data collection.

Disclosure notices for cross-domain marketing programs must contain a complete list of all marketers and other entities participating in the program, as well as a complete list of all data collection practices and the physical locations of the collection devices.