In-Game Advertising Measurement Guidelines

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These Guidelines have been developed by the IAB In-Game Ad Measurement Working Group with guidance from the IAB Games Committee.

About the IAB In-Game Ad Measurement Working Group:

The IAB In-Game Ad Measurement Working Group worked to develop a transparent methodology that will support growth and stability in the industry as advertisers will have consistent and reliable metrics across various providers.

Key Contributors:

2KGames	Extent	PointRoll
Activision	Google	Range Online
Atlas	IAC	Real Networks
Deloitte	IGA	SkyWorks
Double Fusion	IGN	Sony Playstation
Dynamic Logic	IM Services	THQ
Electronic Arts	Jogo Media	Ubisoft
Ernst & Young	Microsoft	Unicast

About the IAB Games Committee:

The mission of this committee is to articulate the value of gaming as an advertising platform.

A full list of Council member companies can be found at:
http://www.iab.net/games_committee

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1. Scope and Applicability of these Guidelines

These guidelines are intended to cover dynamic, in-game advertisements that appear in PC or Console-based games.

These guidelines are not intended at this time to cover the following: Around-Game Advertisements; Static In-Game or Sponsorship Ads; 3D Ads; Event-based Ads; or Ads that appear in games in a mobile environment. These guidelines also do not consider the impact of those Users who may opt out of receiving advertisements during game play; this circumstance may be considered at a future time pending study of the potential impact of such non-participation upon reported measurements. For purposes of this guideline and until further guidance is developed, Users who opt out of receiving advertisements should not contribute to valid ad impressions.

This document is principally applicable to those organizations involved in the PC and Console game industries, and is intended as a guide to accepted practices, as developed by the IAB and MRC. In addition, In-Game Advertising planners and buyers can use this document to assist in determining the quality of measurements.

2. Glossary

Ad Angle: This refers to the angle by which an advertisement appears to the game player on screen, and is relevant to the visibility thresholds that are established in order for an exposure to an In-Game Ad to count as a valid ad impression.
- For example, a game player driving a race car in a racing game may see a billboard in which an ad is placed as he or she approaches a turn in the racetrack, such that the ad initially is viewed at a sharp angle and comes into a clear view as the car proceeds through the turn.   An angle degree threshold of 55 degrees is established in these guidelines as the threshold at which the ad is qualified to contribute to an eligible ad impression.

Ad Impressions: A measurement of exposure to an In-Game ad that meets established minimum thresholds for time and quality.

Around-Game Ads: A form of game advertising that places advertisements in borders that surround the screen area in which the game itself appears. These types of ads are not within the current scope of these guidelines.

Client-User: A game-play console or browser that interacts with a game application, essentially playing or otherwise reviewing the game. The number of Users or the identity of the Users interacting with the game is not necessarily known.

Cool Off Period: In a Cumulative Counting approach, a cool off period is a specified period of time that must pass between valid Ad Impressions. Cool off periods serve a purpose similar to Frequency Capping, but are not required under these guidelines.

Cumulative Counting Method: A method of calculating Ad Impressions that allows for the aggregation of separate ad exposures to achieve a pre-determined time length threshold to qualify as a valid Ad Impression.

For instance, assuming a 10-second threshold for a valid Ad Impression, a cumulative counting method would allow for two 5-second ad exposures to be accumulated to one Ad Impression.

Deferred Ad Impressions: These are ad impressions that occur and are counted while the game is being played offline by a User. These impressions are then reported when the game player reconnects online, and the data for these offline impressions are collected.

Dynamic In-Game Ads: Those In-Game Ads that can be dynamically changed, and thus can be used for placement within games of different advertisements for different products at different times to different Users. Generally these ads follow the rules established for content types which include Logo Ads, Billboard Ads and sight-Sound-Motion ads.

Event-Based Ads: Those In-Game Ads that are generated as a result of a game event, typically a User interaction with the ad within the game environment. These ads may also be called "Interaction-Based Ads." Event-Based Ads are not within the scope of this present set of guidelines, but will be addressed at a future point in time.

Frequency Capping: A practice that limits the number of times an advertising message exposure to a particular User can be billed to buyers within a campaign or over a specified time period. For example, an In-Game Measurement Organization may limit the number of ad impressions attributable to a specific User for a specific ad to 15 per hour of game play.

In-Game Ad Unit: An individual advertisement that appears within the game environment. Multiple In-Game Ad Units may appear on screen simultaneously.

In-Game Display Ads: Display advertisements that are integrated into the game play scenarios that the User (gamer) experiences when playing the game. These ads may be either static or dynamic. Two common types of In-Game Display Ads are Billboards and Logos. Billboard Ads typically contain more extensive messaging than Logo Ads, and this messaging may appear in text, graphic, pictorial, or other forms, and may include logos within them. An example of Billboard Ads would be product billboards that appear in a car racing game as the driver/User navigates around the track. Logo Ads rely on relatively simple graphic visuals, and generally serve to reinforce other advertising messaging, such as branding, in some way.

In-Game Ad Networks: Ad networks that combine games from many publishers to allow an advertiser to reach a wide audience across multiple games.

In-Game Measurement Organization: An organization that counts and reports Ad Impressions and other metrics associated with the delivery of In-Game advertising. Such organizations typically may include, but are not necessarily limited to, In-Game Ad Networks, Ad Serving Organizations, or Game Publishers or Developers.

In-Game Transaction Records: Records that result from the delivery of advertisements to game play Users, and from which reports on the number of Ad Impressions and other relevant advertising metrics are derived. Transaction records, and the methods used to create and process them, are key elements to the auditing of ad serving systems.

Occlusion: This refers to the state of visibility of an In-Game ad to the User. Occluded ads are ads that are obstructed to various degrees by objects that appear on the screen in the game environment that affect the User's ability to see and/or distinguish the advertiser's message.

- For instance, in a car racing game, the driver/game player's vision of an on-track billboard ad may be obscured in part by an element within the game environment, such as smoke from another car. Specific thresholds should be established to determine the minimum degree of visibility of the ad that must occur in order for the exposure to qualify as a valid ad impression.

Scheduled Ads: In-Game Users may be exposed to these, which are ads that appear according to a pre-determined schedule or in an out-of-game situation (such as an interstitial). Scheduled Ads are typically very similar in appearance to internet display advertisements. Measurement of these ads should follow the guidance prescribed by existing IAB Guidelines, most specifically the IAB's Ad Impression Guidelines (available at www.iab.net).

Session: A single game play event that spans an unspecified period of time of constant or ongoing game play activity by a specific User or Users. Sessions can be terminated by User actions signaling the end of the game play activity or by inactivity levels that exceed thresholds as defined within this document. Sessions are generally applicable to the calculation of Reach metrics.

Static In-Game Ads: These ads appear within the game environment, but cannot be changed from Session to Session or User to User. In other words, they are "hard coded" into the game itself. These static ads are not within the scope of this present set of guidelines.

User, Unique User: A person playing a gaming application and exposed to advertising messages, as determined through registration, User self-identification or some form of heuristic. A Unique User is an unduplicated person playing a gaming application and exposed to advertising messages during the reporting period.

3. Measurement Definitions and Other Metrics

The following presents the guidance for "Ad Impression" counting resulting from the deliberations of the In-Game Advertising Working Group of the IAB Games Committee with facilitation from the Media Rating Council.

3.1. Ad Impressions

A measurement of an advertising exposure occurrence, contained within real-time or stored and transmitted client-side game-play activity records, sourced from a properly installed and functioning game application, or measurement application within or external to a game application, being played by a Client-User. The advertising exposure occurrences must meet or exceed the minimum requirements summarized below and be filtered from non-human activity where applicable.

This guideline requires measurement to be based on client-side in-game activity, sourced from game Session information records containing advertising exposure occurrences and not solely ascribed activity, solely inferred information records or server side transactions. Similar to requirements summarized in other measurement guidelines promulgated by the IAB, server side transactions of in-game activity do not provide sufficient evidence that the Client-User was actually exposed to the advertising message.

The physical attributes of the advertisement and the placement of the advertisement within the virtual game environment should be fully disclosed by the in-game measurement organization as part of initiating the campaign with the advertising agency or buyer. Additionally, variable exposure attributes (size, angle, etc.) of the advertising during a game-play Session are subject to certain minimum time of exposure and quality parameters specified within this guideline before they can be reported as valid.

In cases where the game is browser based, valid ad impressions can only be counted (and ad exposure units, the building blocks of valid ad impressions when a cumulative counting approach is used, can only occur) during times when game play is in focus on the Client-User's browser. The on-top or dominant tab within a tabbed browser or windowed environment qualifies as "in focus" for measurement purposes.

The In-Game measurement organization should have sufficient edits and controls, and no significant known faulting information for the specific game installation subject to measurement, to determine:
- That the measurement application within the game environment (if separate) was installed and functioning as designed during any measured In-Game Session, and
- That the game itself was installed and functioning as designed during any measured In-Game Session

In-Game transaction records, which contain evidence of advertising exposure, can be derived and transmitted to the in-game measurement organization: (1) on a real-time basis during on-line game-play, (2) in batched groups that are transmitted periodically during an on-line game-play Session, or (3) first stored during off-line game-play and later transmitted during subsequent on-line Sessions (not necessarily associated with game play) of the applicable User device, if appropriate authentication and minimum timing from play to data collection is present. To consider an ad impression valid, the timing of the served ad must be included within the campaign reporting period and must be prior to billing for that period based on the pre-determined billing cycle.

A continuous game play Session is measured from the start-time of the game-play to the end-time of the game-play, as long as the in-game measurement organization does not encounter inactivity (player idle) exceeding 60 minutes, which will terminate the Session.

Reporting of ad impressions should mirror the requirements as specified in the ad insertion order, and should be agreed upon upfront. For example, if an ad is purchased across an ad network as specified in the insertion order, the resulting ad impressions should be reported as delivered across that network; if the ad is purchased by games A, B, and C in aggregate, the resulting impressions should be reported for games A, B, and C in aggregate; and so on.

The following details are key components of the ad-impression measurement guideline:

3.1.1 Time of Exposure

The following specifies parameters for ad-impression measurement that relate to minimum time of exposure. For parameters related to the minimum quality of exposure see the section of these guidelines entitled "Impression Quality."

3.1.1.1   Valid Ad Impression

The threshold for a valid Ad Impression is a cumulative exposure to an ad of ten (10) seconds.   An In-Game Measurement Organization may accumulate ad exposures of shorter time lengths to achieve this Ad Impression threshold. In all instances, the ad exposures that can contribute to this cumulative Ad Impression threshold must be a continuous exposure of one-half (0.5) seconds or more.

The specific counting methods used for such cumulative approaches should be fully disclosed.

The In-Game Measurement Organization should have the ability to segregate ad impressions for reporting by individual ad units upon customer request, Reporting impressions based on the segregation of ad units is not required under these guidelines. However, this ability is likely to become increasingly important in the analysis of the performance of event-based ads.

> ***Note for Sight-Sound-Motion Ad Messages***: The specific parameters for cumulative counting that are detailed above—a minimum exposure of 0.5 seconds and a minimum threshold of 10 seconds for a valid Ad Impression—will apply to Logo-based Ads and ads containing a textual message, but <u>will not apply to ads containing a sight-sound-motion message</u>. Sight-sound-motion ads should follow guidance as already established by the IAB's Digital Video Ad Measurement Guidelines or Rich Media Measurement Guidelines (which of the two is applicable depends on the type of ad and the environment in which it is viewed); these guidelines are available at www.iab.net.

3.1.1.2   Ad Exposures during Inactivity (idle) Periods

Ad exposures recorded during periods of inactivity (player idle) exceeding ten (10) minutes shall not contribute to valid ad impressions (post threshold and retroactively during the idle period back to the last activity recorded). As noted above, inactivity periods extending sixty (60) minutes will terminate the game-play Session.

3.1.1.3   Cool Off Periods

In-Game Measurement Organizations that accumulate ad exposures in calculating Ad Impressions may establish and disclose a "Cool Off Period." While not required under these guidelines, a Cool Off Period is a period of time that occurs after a valid Ad Impression, in which additional exposures may not be accumulated toward another valid Ad Impression.

For instance, an In-Game Measurement Organization may establish a 20-second cool off period that occurs after each valid Ad Impression (i.e., after 10 seconds of exposure). To illustrate how this example would be applied, a 60-second period of continuous exposure to an ad would result in two (2) Ad Impressions (a 10-second period for the first ad impression, followed by a 20-second cool off period; and then another 10-second period resulting in the second ad impression, followed by another 20-second cool off period).

Cool off periods may relate to Frequency Cap thresholds, which are discussed in greater detail in Sec. 3.1.7 of these guidelines.

3.1.1.4   Average Ad Exposure Length per Valid Impression

The In-Game Measurement Organization should report the average length of ad exposures per valid Ad Impression reported. For instance, if, on average, 2 ad exposures are accumulated for each reported Ad Impression, the average length of exposure per valid Ad Impression is 5 seconds; if 5 ad exposures are accumulated on average for each valid Ad Impression, this metric equals 2 seconds; and so on.

Again, this measure should be reported mirroring the requirements of the ad insertion order, similar to the reporting of ad impressions, as is detailed in Sec. 3.1 of this document.

3.1.1.5   Average Ad Exposure Time

The in-game measurement organization should disclose an average period of advertising exposure time to provide data users with a sense for the relative ad clutter environment in which an ad appears. This may be done as a percentage of average game-play Session time – for example, "the average game-play Session totaled 30 minutes, and contained (x) minutes of ad exposure, from which (y) valid Ad Impressions were counted." Alternatively, this information can be reported on a normalized basis of minutes of advertising exposure per hour. This measure should be reported in a manner that mirrors the requirements of the ad insertion order (similar to the manner in which ad impression reporting should mirror the I/O requirements, as detailed in Section 3.1 of this document).

It should be noted that multiple advertising messages can occur during the same time of game play; therefore multiple valid ad-impressions can occur during the same second (i.e., the same period of time can contribute to multiple valid ad impressions). This is consistent with other types of display advertising in other media types.

3.1.2 Impression Quality

The following specifies parameters for ad-impression measurement that relate to minimum impression quality. For parameters related to the minimum time of exposure, see the section of these guidelines entitled "Time of Exposure."

All of the following parameters should be specified and fully disclosed for each game environment (these parameters may differ by game and/or platform). Where these parameters are not used they should be so indicated.

3.1.2.1   Minimum Ad Size
The ad must be a minimum of 1.5% of screen coverage.

3.1.2.2   Lighting

Only ads that are visible within the virtual game environment with sufficient lighting during darkness should be counted.

3.1.2.3   Maximum Ad Angle Relative to Game Screen

The angle of the ad must be no greater than 55 degrees relative to the game screen.

3.1.2.4   Occlusion Determination

Occlusion represents an instance where the In-Game ad unit is blocked from view either totally or partially during game play, and therefore the User's ability to cognitively recognize the message is diminished.

In-Game Measurement Organizations are encouraged to specifically identify and segregate occluded ad impressions for reporting purposes. Use or non-use of Occlusion rules, and specific rules where used, should be disclosed.

3.1.2.5   Non-Human Activity

Valid ad impressions shall not be counted if the In-Game measurement organization has indication that the associated game-play activity is robotic or non-human.

Depending upon the game environment, the in-game measurement organization may be required to perform active filtration for non-human activity from robots or spiders.   For closed game environments such filtration is generally not applicable.

3.1.2.6   Internal Traffic

Ad impressions arising from activity of employees of the in-game measurement organization should be removed from reported counts.

3.1.3 Sight-Sound-Motion Ads

Measurement of impressions for Sight-Sound-Motion Ads should follow the guidance as already established by the IAB's Digital Video Ad Measurement Guidelines or Rich Media Measurement Guidelines, as applicable (available at www.iab.net).

> ***Additional Note for Sight-Sound-Motion Ad Messages****:   Requiring the Client-User to be exposed to the entire sight-sound-motion advertisement is considered beyond the minimum scope of a valid ad impression and may add an additional element of conservatism to such counts. It is also somewhat dependent on creative quality, and may be outside the scope of the in-game measurement organization's control. Exposure occurrences to the entire (complete) sight-sound-motion advertising*

message can be measured and reported, but the methodology for measurement should be specified and fully disclosed.

It also should be noted that the development of other non-revenue event measures that can provide further insight into the use and effectiveness of sight-sound-motion ads is encouraged. However, any future guidance for measures that consider time spent with a sight-sound-motion ad as a component should not allow for the accumulation of time of exposure to the ad if it is the same partial section of the ad that is played repeatedly. For example, three separate plays of the first five seconds of a 15-second sight-sound-motion ad should not be accumulated to equal 15 seconds of exposure to the ad; however, separate plays of the first 5 seconds of the ad, the second 5 seconds of the ad, and the third 5 seconds of the ad might conceivably be accumulated to equal 15 seconds of exposure.

3.1.4 Deferred Impressions

As noted above, in-game advertising exposure events can be captured and measured for game play that occurs both on-line or off-line (and stored). Valid ad impressions can be measured and reported in either type of playing environment or both.

Ad impressions resulting from off-line, stored and later transmitted activity (herein called "deferred" impressions) must have occurred within the campaign reporting period. Also, the ad impression must have occurred before the final bill for the campaign period, based on the pre-determined billing schedule. Thereafter, this activity should be considered expired.

Deferred Ad Impressions must meet the minimum time of exposure and quality parameters specified within this guideline, similar to on-line impressions.

3.1.5 Session Definition and Inactivity Thresholds

Valid ad impressions and other measurement metrics reported by the in-game measurement organization should be controlled and segregated by game Session. Session definition and control helps to ensure that the User (or Users if multiple simultaneous exposures to the same ad message are a game design feature) remains the same for impression accumulations.

Significant periods of game inactivity will terminate the Session assumption. Specifically, an inactivity period equal to or longer than sixty (60) minutes will terminate the game play Session. This 60-minute inactivity threshold may be adjusted in the future pending further study of the activity patterns of in-game Users.

3.1.6 Frequency and Exposure Capping

Frequency Capping – Frequency Capping logic (limitations applied to the number of times advertising messages within a campaign or over a period such as an hour exposed to a specific User can be billed to buyers) may be used by the in-game measurement organization. If these caps are used, they should be specified and fully disclosed. It is expected that Frequency Capping will be a subject of further industry study, through which optimum agreed-upon levels and thresholds may be determined at a future time.

Valid ad impression counts that exceed frequency caps for a User or campaign can be measured and can be communicated to the buyer, but should be segregated from billed counts as per campaign terms.

Maximum Number of Impressions per Game-Play Session – The in-game measurement organization should specify and disclose any policies concerning a maximum number of ad impressions allowable per game-play Session (for example, one hundred impressions per Session), regardless of the number of Client-Users involved in the Session.

Maximum Number of Impressions over Game-Play Session Time – The in-game measurement organization should specify and disclose if a maximum number of ad impressions allowable over time during a lengthy game-play Session exists (for example, a maximum of 25 impressions per hour), regardless of the number of Client-Users involved in the Session.

3.1.7 User Attribution

In certain circumstances, an in-game measurement organization may have the ability to attribute game-play Sessions or activity to a specific User (or a Unique User over a reporting period). If User attribution is employed and disclosed as part of the monetization of an ad-campaign, the methodology for determining the User (or Unique User) should be specified and fully disclosed.

Counts arising from User attribution methods based on User input (such as registration or in-Session polling) should be specified and disclosed separately from User attribution methods based on inference or ascription methods.

3.1.8 Engagement

In-game measurement organizations can measure other attributes of game play Sessions that go beyond pure valid ad impressions – these may include voice, mouse, button, keyboard, joy-stick or other game-related device interactions during game play. Many of these additional attributes can provide an indication of User presence and "engagement" with the game.

If other measured attributes are reported during game-play Sessions, as noted in the preceding paragraph, the methodology for measuring these items and the method for linking these items with the game play Session and/or User should be specified and fully disclosed.

3.1.9 Other Ad-Impression Considerations

Advertising messages can be from primary or secondary (default) creative (for example, in situations where a user's browser may not support Flash creative, alternative creative in a non-Flash format may be delivered instead), but where impressions from secondary creative are material to total advertising counts for the campaign or the primary creative execution for the reporting period, these secondary-creative counts should be segregated for reporting purposes.

Significant measurement limitations, such as limitations associated with technology platforms, game hardware and/or game-software versions or operational failures or errors, should be fully disclosed by the in-game measurement organization. To the extent limitations are known up front, these should be fully disclosed in

advance of negotiating the advertising campaign. Any other measurement errors noted by the in-game measurement organization should be disclosed to buyers if they impact greater than 5% of reported counts, including if the error was discovered post campaign, within one calendar quarter.

Aggregation methods used to collect and summarize records of game-play activity from a Client-User and across Client-Users for a reporting period should be specified and fully disclosed. Reasonable internal controls should be present to prevent the loss, duplication or unintended alteration of game play activity. The nature of the data captured for game-play records (specific fields with descriptions) should be disclosed.

Editing, ascription, attribution or other data adjustment techniques should be specified and fully disclosed. Where applicable, valid ad impression counts subject to significant levels of adjustment (sourced from the in-game measurement organization and not User activity directly) should be segregated from non-adjusted counts for reporting purposes.

Other measurement limitations that may be present during game-play such as abandonment, pop-up blockers, modified browser attributes, cached activity, etc., should be fully disclosed where applicable.

3.2. Reach

The in-game measurement organization can provide a measure of ad-impression reach, which is the accumulation of unique game Client-Users over a reporting period.   Procedures for identifying a unique game Client-User should be specified and disclosed based on client-side game activity using registration or other forms of heuristics.

Measurement guidelines for reach metrics will be the subject of future guideline initiatives by the IAB and MRC.

3.3. Frequency

The in-game measurement organization can provide a measure of ad-impression frequency, which is the accumulation of valid ad-impressions over time to the average unique game User. The frequency reporting time-period should be fully disclosed, and the nature of the ad-impression accumulation method such as duplicated or unduplicated by game Session and game User (over the reporting period) should be fully disclosed.

It is strongly recommended that frequency measurements containing both on-line and off-line exposed ad-impressions fully disclose that fact. The reported frequency resulting from off-line exposed ad-impressions should have an associated measurement of average time from play to transmission for the reported counts, with the method for determining the average also fully disclosed.

4. Auditing Guidelines

General

Third-party independent auditing is strongly encouraged for all in-game ad-serving applications used in the buying and selling process. Also, IAB's *Ad Campaign Measurement Process Guidelines* are applicable here as well (see www.iab.net/campaign_measurement_process).

Auditing of In-Game advertising measurement is recommended to include both the counting methods and processing/controls employed, 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 of any relevant filtering procedures used, and measurement recalculations. Activity audits can be executed at the campaign level, verifying the activity associated with a specific ad creative being delivered for performance measurement purposes.
2. **Processes/Controls:** Examination of the internal controls surrounding the ad delivery, recording and measurement process. Process auditing includes examination of the adequacy of site or ad server applied filtration techniques, if applicable.

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 should clearly state the periods covered by the underlying audit testing and the period covered by the resulting certification.

U.S. Certification Recommendation:
All ad serving applications used in the buying and selling process are recommended to be certified as compliant with these guidelines at minimum annually. This recommendation is strongly supported by the American Association of Advertising Agencies (AAAA) and other members of the buying community, for consideration of measurements as "currency."

5. General Reporting Parameters

In order to provide for more standardization in In-Game advertising measurement reporting, the following general reporting parameters are recommended:

Day: 12:00 midnight to 12:00 midnight

Time Zone: Full and prominent disclosure of the time zone used to produce the measurement report is required. In addition, all reported data should be made available to users based on Eastern Time Zone (U.S.) time periods (in addition to any others that the audience measurement organization may deem appropriate), to allow users to make comparisons across web sites and properties from a common standard of time reference.

Week: Monday through Sunday

Week parts: Monday-Friday, Monday-Sunday, Saturday, Sunday, Saturday-Sunday

Month: Three reporting methods are acceptable: 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.

6. Disclosure Guidance

An organization's methodology for accumulating In-Game measurements should be fully described and accessible to users of the data.

Specifically, the nature of In-Game measurements, the 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 should be included in the disclosure.

Following are examples of the types of information that should be disclosed:

Nature of In-Game Measurements
- Title of Game(s) Included in the Measurement
- Name of Measurement Report
- Type of Measurements Reported
    - Time Periods Included
    - Days Included
    - Basis for Measurement
    - Geographic Areas
    - Significant Sub-Groupings of Data
- Formats of Reported Data
- Special Promotions Impacting Measurements
- Nature of Auditing Applied and Directions for Access to Audit Report
- Sampling/Projections Used (if applicable)
    - Explanation of Projections Methods

Data Collection Methods Employed
- Method of Data Collection
    - Logging Method
    - Logging Frequency
    - Logging Capture Point
- Types of Data Collected
    - Contents of Log Files
- Contacts with Users (if applicable)
- Research on Accuracy of Basic Data
    - Latency Estimates
- 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

- o Handling of Partial Data Records
  - ▪ Ascription Procedures
- o 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 of Error Correction Rules

<u>Reporting Standards</u>
- • Requirements for Inclusion in Reports, Based on Minimum Activity Levels

<u>Reliability of Results</u>
- • Sampling Error (if applicable)

<u>Limitations on Data Use</u>
- • Non-Sampling Error
- • Errors or Unusual Conditions Noted in Reporting Period
- • Limitations of Measurement