

# FAST/ARF

## PRINCIPLES OF ONLINE MEDIA AUDIENCE MEASUREMENT

(1/00)

### PURPOSE

The purpose of this document is to further the quality and comparability of *all* online media audience measurement, through their subscription to a common set of principles.

These principles address the measurement of online media audiences, their size, market-relevant characteristics and media-relevant behaviors. The central purpose is to direct the industry toward audience measures that are comparable in quality and nature to those employed for other commercial media. In keeping with this central purpose, the goal of these principles is to encourage the development of accurate, unbiased, precise, reliable and actionable estimates of consumers' opportunities to see (OTS) ads and other online media content.

Recognizing the unique character of online media, these principles also encourage the development of more advanced measures which more fully express the value of the medium. This document's focus on OTS measurement in no way suggests a lack of value to other measures which may better reflect the value provided for certain marketing strategies including qualified traffic delivered, leads generated, not to mention online sales, among others.

Underlying these principles is the expectation that online media measurement will migrate over time from their current state to a state comparable to traditional media and then a state beyond traditional media. It is the goal of these principles to offer guidance for that migration. Technology is becoming available to enable the migration from measurement of "ads sent" to "ads displayed" – the online equivalent to OTS. For a detailed solution see the companion document, "FAST Basic Ad Measures Guidelines." It is reasonable to expect those measurement systems that wish to be viewed as using best practices to make this transition in the months ahead.

Adherence to these principles, while in the best interest of the industry, is entirely voluntary.

# INTRODUCTION TO THE THREE TYPES OF ONLINE MEDIA MEASUREMENT

Three distinctly different types of online audience measurement are currently available:

- Site-Centric, in which the website server log entries are the immediate subject of analysis
- Ad-Centric, in which the ad server log entries are the immediate subject of measurement
- User-Centric, in which the person using online media is the immediate subject of measurement

In each case the objective is to count or estimate the number of occasions when a person has the opportunity to see an element of online media content – advertising or editorial. Each measurement type has distinct advantages, though none alone captures the full range of market-relevant and media-relevant activities of consumers.

Consideration of the strengths and weaknesses of each of the three methods of measurement, as detailed below, suggests both a division of labor providing for a viable measurement system for today and a path toward superior measurement in the very near future. Because user-centric systems can provide useful data regarding the media and marketing characteristics of users who can potentially be reached at a given site, they are useful for media planning. Site and ad-centric measurement systems can count the precise transmission of ad exposures and automatically document these for the post-buy evaluation. Used together intelligently, these tools provide a viable system for planning, buying and posting online advertising.

Site-centric measurement systems are presently the most commonly used among commercial websites. They typically measure the request for a page or other content element, providing actual counts, not subject to statistical errors. Thus, site-centric systems provide much more depth and detail about activity at a site than can possibly be achieved with user-centric panels. They can provide counts of ads served which is of greater relevance than a measure of exposure to the site. Site-centric systems have no difficulty in counting activity initiated by a user at work, a user in an institutional non-household setting (e.g. at school), or by a user in another country.

However site-centric measurement systems offer room for improvement. Most current systems can only count pages sent, not pages displayed and pages that are cached by proxy servers (or the individual user's browser) escape detection by the originating server. On the other hand, pages that are aborted or abandoned before display are presumed by the originating server to have provided and opportunity to be seen, while, in fact, they don't. These systems

generally do not provide demographic information or media dynamics such as reach and frequency. Although other types of audience characteristics based on measured online behaviors can be reported. Because of a lack of standards and common definitions, there is little comparability between them. Complex web media elements (e.g. frames, daughter windows, and various applets) may be counted inconsistently. Finally, site-centric measurement has an inherent conflict of interest since the reporting and measurement is in the hands of the media sellers; this can and must be remedied with audits.

Many of these considerations could be improved with one or more of the following –a universal set of definitions and related standards (providing for greater comparability), and a comprehensive campaign audit policy (and the credibility this would ensure). These principles are a step toward such improvements. A very concrete step is being taken concurrently with the publication of the FAST Basic Media Measures Guideline. This document specifies how site and ad-centric measurement systems can provide an excellent approximation to Opportunities To See. This will engender greater comparability both within online media and between online and traditional media.

Ad-centric measurement is the newest form to emerge on the World Wide Web. It has grown up from the practice, unique to the Web among all media, of having ads served not by the media, but by “remote” third parties. In some cases, these are ad-serving networks who are actually selling the ads on behalf of their affiliated network of sites. In other cases, the ad servers are not representing the sites but rather the advertisers. In either instance, the net effect is to detach the responsibility for ad serving from the media. In general, they offer many of the same benefits and limitations as site centric measurement, except that they consistently count ad exposures across media. Some ad-centric systems have technologies designed to defeat caching, thereby providing a better count of ads delivered (OTS) regardless of whether they occurred by calling a page from a webserver, from a proxy server, or from local cache. The remaining frontier for these systems is the identification and proper classification of ads that are aborted or abandoned prior to their full display at the browser. A more recent concern, born of the technological sophistication of these systems, is *latency*. On occasion an ad may not be delivered to a browser in time to be viewed because of processing complexity and network congestion.

Ad centric systems usually cannot provide traditional demographic descriptions of the characteristics of the audience receiving the ads or their media behavior over time, such as would be reported by a reach and frequency analysis. Like site-centric systems, ad-centric systems face a conflict of interest problem, requiring audits.

Many of these considerations could be improved with one or more of the same solutions offered for site-centric measurement. The *latency* issue might be solved

by the adoption of maximum cycle time standards. These principles are a step toward such improvements.

User-centric measurement readily measures the display of online media content by a browser. It offers several other benefits. Conducted by independent and objective third-party measurement companies, there is no conflict of interest. Because user-centric systems are generally based on panels it also can provide detailed information about the demographic characteristics of users and their cumulative use of online media over time, including reach and frequency of exposures.

User-centric measurement also has opportunities for improvement. Due to the finite resolution of any sample-based technique, it has difficulty providing detail about activity below the domain level of websites. This makes measurement of audience exposure to specific ads challenging at best, requiring huge panels. Because of the fragmentation of the World Wide Web, many meaningful sites cannot be cost-effectively measured at all. Moreover, because so much traffic at websites is generated from work-based, school-based, and internationally based locations, there are questions about whether the composition of user-centric panels can truly reflect the actual dynamic universe for the World Wide Web. Due to the use of panels, user-centric measurement systems produce estimates, subject to sampling and non-sampling error. This unavoidable variability may be exacerbated by the generally inconsistent application of high quality statistical research methods. The quality of a user-centric measurement system also depends upon the accuracy and reliability of the software employed to actually measure, store and communicate the online content viewed. Given the increasing complexity of online content display styles there is justifiable concern that an ad “visible” to the browser may not be visible to the user and thus not a true OTS. Measurement software needs to identify situations in which windows obscure ads or other content behind them.

Many of these considerations could be improved with – the consistent application of high quality research techniques (providing greater comparability and reliability), larger panels (delivering increased precision and greater scope), and the inclusion of panelists at work (if not other locations of online media usage). These principles are a step toward such improvements.

There are significant advancements of both quality and utility available to all three measurement systems that offer to enhance their value greatly in the months ahead. These are mentioned above and spelled out below. Even as these steps are being taken, we are cognizant of some seemingly inherent limitations of each system. User-centric systems may always have limited resolution. With today’s technology this seems solvable only with seemingly unaffordable large panels. Site and ad-centric systems may never have information about user’s media or marketing characteristics required for media planning. These limitations may be surpassed with new technologies. They may

also be surpassed by the clever integration of the three measurement systems. These chapters are yet to be written.

These principles address the immediate opportunity before us, for the further advancement of all three measurement techniques over the next year. It is the goal of this document to enable the industry to seize this opportunity by:

- differentiating among the three types of measurement
- setting forth principles that apply to all three measurement methods
- establishing, where possible, common terms and definitions
- identifying areas where basic research is required to establish the most valid method for measuring online audiences

# THE ETHICAL PRINCIPLES

## 1. Post and Practice Privacy Policies

***Researchers must respect the rights of the individual to anonymity and privacy.***

In many regards, online media audience measurement is similar to the research practices of other media. In particular, the research industry's respect for respondents' rights, including the right to privacy, is paramount in maintaining a healthy atmosphere for marketing research.

Where online research differs is in the medium's inherent ability to gather large amounts of information on people without their consent. Many consumers view this new ability as a potential threat and have reacted with a heightened level of fear and suspicion. If marketing researchers do not address consumer fears, they will be addressed by government regulation.

In recognition of these issues, researchers must embrace the rights of the individual to anonymity and privacy. Here, the right to anonymity is defined as the right to remain unrecognizable while pursuing individual interests. The right to privacy is defined as the right to control what personal information, if any, is revealed and how it may be used. Online research falls into two distinct areas: passive and active. The way a researcher announces the desire to collect data about consumers is different in each case, but is required in both cases.

### **Passive Research**

Passive research is characterized by the absence of personal interaction between researchers and respondents. It may include, but not be limited to, any sort of log file analysis or the use of cookies. Personally identifiable information is not involved in these circumstances.

The privacy statement or policy declares the researcher's intent to collect data. The statement should, at minimum, be referred to on the home page and indicate what information is collected, what is done with the information and what the consumer's options are in the collection of these data.

### **Active Research**

Active research is characterized by the presence of personal interaction between researchers and respondents. Active research includes surveys and panels and can be electronic or otherwise.

Respondents must be alerted to the potential use of their personally identifiable information at the time that they are approached to participate in the research. As

always, cooperation must be voluntary. Therefore, personal information must not be sought from, or about, respondents without their prior knowledge and consent.

In obtaining agreement from respondents, the researcher must not in any way mislead them about the nature of the research and its intended use. Respondents must be entitled at any point, during or after the interview, to ask that part or all of the record of their interview be destroyed. The researcher must conform to any such request where reasonable.

Researchers must also reasonably ensure that any confidential information provided to them by clients or others is protected against unauthorized access.

## **2. Fully Disclose Methodology**

***Complete information about research methods and practices used, as well as all the data collected, and its ownership, should be revealed to all research subscribers and prospective subscribers. Limited exceptions may be made to allow research suppliers to protect trade secrets, but these exceptions should only apply to technologies without current patent protection. To the maximum extent possible, all methods used should be as “transparent” as possible, thereby permitting critical evaluation and replication.***

Excellence in research practice requires that methods be disclosed in sufficient detail to permit replication by another researcher, and that all data be fully documented and made available for independent examination. Though the details of disclosure may vary somewhat depending upon the specific technique employed, they should include the following at a minimum:

- A precise definition of the intended measurement universe – the population under study – which the study is intended to represent and (if a sample was used) a detailed description of the sampling frame used to identify this population (including its source and possible biases)
- If sampling is used, descriptions of sample design, selection, incentives, recruitment and screening procedures.
- A detailed description of how measurements were made, including a frank discussion of potential liabilities of the measurement, together with empirical evidence, if available, of the validity of the measurement method.
- A complete description of the further processing the data are subject to including, qualification, editing, weighting, ascription and the calculation of reported measures.

All of the data gathered should be reported or held available to buyers in a database. No data should be eliminated from availability to buyers on the basis of concealing statistics unfavorable to a specific media vehicle, or for any other

reason, except for data contractually exclusive to specific subscribers, and except for the necessity of protecting consumer privacy, or research supplier trade secrets.

Under no circumstances should any personally identifiable information of respondents, panelists or subjects be revealed.

### **3. Use Third-Party Measurement and Established Industry Audit Practices**

***Audience measurements should be taken by objective third party research suppliers and not by the media vehicles being measured. Where the media self-measure, the results should be audited.***

In principle, to assure unbiased reporting, measurers of online media should have no interest in the medium being measured. Third party measurement is the standard for all advertiser-supported media. The benefits of such third party involvement are many, including a guarantee of objectivity, a standard reporting schedule and format, and an assurance of comparable data.

In practice, online media have the unique ability to measure their own audiences in real time. When evaluating the audience of a vehicle, these data are often very valuable. We do not wish to discourage the media from either collecting the data or making it available. However, we do maintain that such measurements should be analyzed and reported according to common standards and definitions applied broadly in the industry. Furthermore, they should be subject to periodic audit by qualified third parties.

Even though user-centric measurement companies are independent of the media they are measuring, they too should be subject to a detailed audit of their methods and procedures by a qualified third-party auditor satisfactory to the industry. This is in keeping with practices in other media.

***There are two types of audits that are essential: one warrants the accuracy and validity of audience counts data; the other warrants the compliance with proper research principles and the accurate disclosure of research results.***

Site-centric and Ad-centric measurement systems require a *count audit* to assure advertisers of the accuracy and reliability of the count data. Whether the site chooses to gather these data itself, or hire an outside provider to monitor the logs is irrelevant. In either case, the server controls the data. Hiring a measurer does not fulfill the requirement of disinterested third party verification of the data. In order for the data to be useful, advertisers must have the assurance that they are complete and accurate, and that terms used are defined according to a common

industry agreement. As with other media, the best way to get this assurance is to have the data reviewed, on a regular basis, by an outside auditor. Such audits must include agreed upon mandatory data, and use standard measures and definitions of terms, in order to provide a base level of comparability between measured sites. As with print audits, the data should be reported on a regular basis, and be made available directly from the auditing body, as well as the media vehicle being audited. It is crucial that the auditor be a disinterested party. It is possible for a measurement company to also be in the auditing business. But if this occurs, the industry must be satisfied that the audit service be completely objective. While there is still much work to be done in settling on auditing methodologies and standards, site audits remain a high priority for the advertising community.

User-centric measurement services require *research audits* to assure data users of the service's adherence to industry-agreed technical research principles and to provide full and objective disclosure of the details of the research design and execution. An audit assures advertisers and agencies that these principles have been followed and the data provide at least an acceptable level of research quality.

#### **4. Take Steps to Ensure That Data Are Used Responsibly**

***Research companies, online media and ad serving networks must take steps to ensure the responsible use of their data in the public domain – among clients, the press, and others likely to cite their results in public contexts.***

It is recommended that research companies stipulate conditions for public uses of their data that bind clients to responsible behavior in data reporting. Precautions must be taken to protect against misrepresentation or distortion of results, and against letting competitive passions lead to misstatements and exaggerated claims.

Research companies should also establish clear guidelines for the grouping of site-specific ratings into larger reporting aggregations. Where these groupings create disputes, companies should provide fair means for mediating these disputes.

#### **5. Support Global Harmonization**

***Online media usage around the world should be measured under the guidance of the same principles to ensure global comparability of measurement.***

Given the growth of global branding and global media, as well as the fact that the online media are inherently global, the importance of this principle is self-evident. By establishing clear standards and definitions in the United States, an example can be set that can facilitate adoption elsewhere. Where standards conflict among different countries, efforts should be made to reconcile the differences.

## **6. Encourage Methodological Experimentation**

***Research organizations are encouraged to be innovative in method and practice. However the burden of proof of the validity of the measurement and of conclusions based on the measurement is on the research company.***

Audience data collection methods vary significantly depending on the nature of the medium. As media have evolved, research companies have traditionally been encouraged to empirically test new methods that appear promising in the context of the inherent characteristics of the medium being measured.

In that tradition, it is urged that prospective third party researchers intending to measure online media consider not only the methods already established but also the possibility of new methods of particular promise for any new media.

Of course, experimentation and newness are not encouraged for their own sake. They should produce more accurate and reliable measurement with demonstrated validity.

## **7. Participate in Industry Development of Best Practices Seeking Industry Consensus**

***Online media research standards ought to be set by a broad representation of the advertising industry, including advertisers, agencies, media, research companies and industry bodies. However, these principles will remain adaptable as the media evolve.***

The present document is a joint effort of the Advertising Research Foundation (ARF), The Coalition for Advertising Supported Information and Entertainment (CASIE), founded by the American Association of Advertising Agencies and the Association of National Advertisers, Inc., and the Internet Advertising Bureau (IAB). Together these associations represent a significant proportion of U.S. advertisers, advertising agencies, media companies, and research companies.

The document represents input from the total advertising industry and speaks with a single voice. As such it sets forth industry expectations for audience measurement and accountability research of online media.

# THE METHODOLOGICAL PRINCIPLES

## 1. The Foundations for Measurement of Online Media Should Be Laid to Maximize Comparability to Other Existing Media

***Comparability to the audience measures of other media is a logical prerequisite to meaningful evaluation of online media for inclusion in a brand's marketing plan. Comparability includes the unit of measurement and its characteristics.***

It is preferable that the unit of measurement is comparable to that employed in other media. Currently this is Opportunities To See (OTS). That is, measurement of situations in which both the advertising and the consumer are present and the consumer has an intention to be exposed. Mutual presence is sometimes considered adequate, as in “in the room while the television is on”. Sometimes intention is required, as in “watching and or listening to”. Either approach falls within the range of currently accepted practice, although any measurement refinement that brings us closer to a measure of attention to the medium from one of mere presence is desirable.

At a minimum, online media should be able to provide advertisers with measurement units comparable to other media – that is, measures of exposures, of opportunities to see the ads, of unduplicated reach and frequency of exposure. It is the immediate goal of this document to hasten the development of common terms regarding this minimum.

## 2. More Advanced Measurements that “Go Beyond the Basics” Should Reflect the Unique Capabilities of Online Media

***Beyond measures of the reach and frequency distribution of exposures (OTS), the online media have the potential for measuring their marketplace impact in ways keenly relevant to a brand's marketing objectives. This development should be encouraged as a means of fully valuing online media. However these more diverse measures should still relate backward to established models for cross-media comparisons and forwards to marketing objectives to ensure their validity.***

Over the longer term, it is likely that the online media will afford measures, which better reflect the marketing value they offer, and that these measures will rule the online media marketplace. The utility of these more sophisticated measures will vary for different advertisers, depending upon their product, their marketing strategy, and their ability to sell directly through the online channel.

Ultimately, online media should be able to develop, not only measures of exposure, but also of levels of user involvement and, in some instances, consumer behavior. As more sophisticated measures for online media go “beyond the basics”, there is enormous value in building those measures in a manner that builds upon the intellectual traditions established in media measurement over the past 50 years.

### **3. All Measurement Systems Should Use Best Media Research Practices**

***Audience measurement of online media should follow the quality criteria developed for other types of media research over the last eight decades, except where these are clearly not applicable, to ensure estimates that are accurate, precise, and reliable.***

Guidelines for media research have been developed from past work including survey research techniques developed by academia, statistical and sampling theory and much testing and validation work on media research collection methods by both practitioners and academia.

Industry consensus on many best research practices has gradually been developed over time as a result of this work. It has resulted in setting ever higher but feasible and practical standards for media research. These practices are codified in a number of documents published by various industry organizations. The online media researcher ought to begin by reviewing these documents (see Selected Bibliography, appended).

Following these past documents and this set of guiding principles will go a long way toward providing online media audience measurements estimates that are objective/independent, accurate/unbiased, relevant, timely, precise, and reliable. These are the same criteria that apply to all other media measurements and are defined as follows:

***Objective*** ("independent") means that the party responsible for the estimates has no vested interest in the outcome.

***Accurate*** (“unbiased”) means that the estimating/counting method is without systematic distortion or bias. That is, the expected value of the estimate equals the mean of the population.

***Precise*** means that the random variation of the estimate provides for an acceptable tolerance for the purposes to which the estimates will be put.

***Reliable*** means that the method minimizes random fluctuation in estimates from report to report, such as result from sampling error. This type of error increases (although not proportionately) as the sample size

decreases. Other types of measurement error besides sampling error may also be present, and the effect of their presence upon reported estimates should be evaluated and disclosed fully.

#### **4. All Measurement Systems Should Use Industry Standard Definitions**

***Measures that are comparable must begin with common definitions.***

The sponsoring organizations have harmonized their online advertising glossaries to provide a common language for measurement and the related industry dialogue.

#### **5. All Measurement Systems Should Use a Clearly Defined Universe**

***A clearly defined universe provides the basis for relating online media audiences to other media audiences as well as to brand marketing objectives. The universe definition must begin on the basis of an age-delimited total United States population and not be limited to persons with online access, specific place of access (home, work, school, etc) or specific online usage behavior.***

The universe definition must include an age-delimited total population, with population estimates fixed for a twelve-month period and updated from year to year. At minimum, the universe should be adults 18 and older, providing comparability with audience measures of all other media. Measurement of audiences as young as persons 6 and older is highly desirable for youth oriented media.

In addition to breaking down the universe by age and other demographic characteristics, it is essential to identify the *available universe* – persons with access to online media, regardless of the place of access or technical means of access. At present there are no standard reference population estimates for this critical segment. The best available research techniques must be employed to provide frequently updated estimates of this dynamic population. It would be beneficial for all if there were an accepted industry estimate of the size of this group.

Ratings should be expressed in terms of the age-delimited total US population, but may also be expressed as a percent of the age-delimited total US online population.

### **Considerations regarding site and ad-centric measurement**

In addition to any other audience estimates they may provide, site and ad-centric measurement systems need to provide audience estimates constrained to the defined universe. These estimates will be comparable, by definition, to all other estimates for the same defined universe. This includes elimination of non-US impressions as well as those outside of the age-delimited population defined as the measurement universe. Given current technology the former is more readily accomplished than the latter.

### **Considerations regarding user-centric measurement**

Definition of the universe is the critical first step for any sample-based research methodology. It affects the choice of sampling frame and the goals for sample weighting for user-centric measurement systems. It provides the base for incidence (ratings) calculations.

User-centric measurement, like any sample or panel based research must follow through on the promise of the universe definition with an appropriate sampling frame, selection and recruitment techniques and ultimately the delivery of an unbiased sample. The frame from which samples are drawn to create online audience measurement panels must include all persons in the universe without bias toward specific groups or types. The sample selected must accurately reflect the universe, without bias. All respondents must have a known probability of selection. Panels must be managed to ensure their continued accurate representation of the dynamic online universe. Users of the data must be informed of its statistical precision.

## **6. All Measurement Systems Should Accurately Measure the Behaviors They Claim to Measure**

***Regardless of measurement approach, measurement technologies should accurately measure the behaviors they purport to measure.***

### **Considerations regarding user-centric measurement**

User-Centric systems should employ passive behavioral measurement technologies that capture the full range of online activities and avoid any systematic biases. These technologies should be capable of measuring all varieties of media elements presented to users via online media. Metering technologies that only work on advanced software platforms should be avoided, as should technologies that are difficult for naïve users to implement or use.

### **Considerations regarding site and ad-centric measurement**

Site-Centric and Ad-Centric systems should state clearly how each measurement unit that is reported is operationally defined. For example, they should specify whether they are reporting pages requested or page delivered. They should clarify how they treat special cases (e.g. frames) in the tabulation of pages.

A separate FAST Measurement Committee document, *Basic Advertising Measures Guidelines*, provides specific standards for ad delivery measurement.

## **7. All Measurement Systems Should Employ Measurement That Is Non-Intrusive**

***Audience behavior should be measured as passively as possible.***

Overly intrusive measurement can change audience behavior, invalidating the measurement it provides.

### **Considerations regarding site and ad-centric measurement**

This need not be an issue for site or ad-centric measurement, unless audience characteristics are ascertained through some questioning or registration process that involves the viewer directly.

### **Considerations regarding user-centric measurement**

User-centric systems should measure and collect online behavior as passively as possible to avoid influencing the behavior they intend to measure. Moreover, respondents of user-centric systems should not be re-contacted unnecessarily or burdened excessively with secondary research questions. Research design and measurement procedures should scrupulously avoid influencing the behaviors being measured.

## **8. All Measurements Must Be Comparable Across Measurement Systems**

***If online audience measurement is to be the currency of online media, it is essential that all measurements of the same viewing event indicate the same audience size and composition; more broadly, the same media value.***

### **Considerations regarding user-centric measurement**

Within a user-centric measurement system online audience measures are inherently comparable, however, there should also be comparability across measurement systems. If the same measurement and universe definitions are employed by any user-centric measurement system of adequate sample quality, they should produce audience size and composition estimates within sampling tolerances of each other for a given viewing event. Any discrepancies beyond sampling tolerances need to be explained through independent validation.

### **Considerations regarding site and ad-centric measurement**

Site and ad-centric measurement face a greater challenge to comparability. First, no one system measures all sites therefore there is not any inherent comparability. Second, there is greater opportunity for differences in the measurement specification. User-centric measurement systems all strive to measure browser behavior. In contrast, ad & site-centric measurement systems may have very different data capture specifications resulting in different audience size and compositions. Great care must be taken by these systems to faithfully report Opportunities To See (OTS). This must be net of the effects of caching, aborted downloads, robots, etc.. If this is accomplished, along with the use of common industry measurement and universe definitions, the resulting audience estimates will be comparable.

# FASTER FORWARD

These Principles are rooted in the current context of knowledge and technological capabilities. They point the way forward. Yet, there are even more issues that we must address next. The following agenda begins to name the issues that we should be now turning our attention to.

## Proposed Agenda for Methodological Development of Online Media Measurement

1. Reconciliation of estimates derived from the three methods
  - Assessments of biases associated with each
  - Data integration demonstration using several sites
  - Guidelines for using more than one method in concert to derive more robust estimate
  - User-centric measures provide a useful benchmark of the *level and composition* of online media audiences. Properly implemented, user-centric systems can measure the content (or ads) as actually displayed by the consumer's computer – the true *opportunities to see*. They do so unimpeded by caching, robots, unsuccessful downloads or other issues which may (or may not) hamper accurate audience measurement by the other two types of measurement.
2. Building corporate acceptance for sampling online audiences @work.
3. Validation experiments for non-standard online sampling techniques.
4. Comparability study among site centric measurement systems
5. Comparability study among ad-centric measurement systems
6. Comparability of user-centric systems – can these differences be explained by random error, or what is at work here?
7. The nature of non-response in online surveys and panels
8. How reliable is the indirect profiling of target audiences by site & ad-centric measurement systems?
9. How do we differentiate the value of various exposure intensities (e.g. by time and degree of interactivity)?

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# GLOSSARY

**Abandonment** – When a Web server does not successfully transfer a unit of content to a browser. This is usually caused by a viewer clicking on another link.

**Abort** – Similar to abandonment, caused by a viewer clicking the stop button.

**Ad/ Advertisement** – Any content on a Web site, which intends to act as a commercial device to carry a message or attract a viewer. This typically takes the form of a static image or a text message, but could easily be a MPEG clip, a Real Audio stream, an animated image, or a Java applet.

**Ad Centric Measurement** – audience measurement derived from a third-party ad server's own server log.

**Audit** – Professional scrutiny of server log information for the purpose of producing the most accurate count of ad impressions and page impressions.

**Browser** – A software program that can request, load and display documents available on the World Wide Web.

**Caching** – The process of copying a Web element (page or ad) for later reuse. On the Web, this copying is normally done in two places, on the viewer's browser and in proxy servers.

When a viewer makes a request for a Web element, the browser looks into its own cache for the element; then a proxy, if any; followed by the intended server. Caching is done to reduce redundant network traffic, resulting in increased overall efficiency of the Internet.

**Display** – Successful download giving the viewer an opportunity to see.

**Impression** – A single opportunity to view a page or ad displayed.

**Log** – A file that keeps track of network connections.

**Page** – A single cohesive container of information presented to a viewer on a Website. A page may contain text, images, and other in-line elements. It may be static or dynamically generated.

**Page Display** – When a page is successfully displayed on the viewer's computer screen.

**Page Request** -- The opportunity for an HTML document to appear in a browser window as a direct result of a viewer's interaction with a Website.

**Page View** – When the page is actually seen by the viewer. Note this is not measurable today. The best approximation today is provided by page displays.

**PIT – (page information transfer)** – The successful transfer of the text of a Web page to a browser.

**Robots** – See spider

**Sample** – Finite part of a universe whose properties are studied to gain information about the universe.

**Sampling Frame** – The source from which the sample is drawn.

**Server** – A computer which contains various files which are shared across a LAN, WAN or the Internet. Also known as “host.”

**Server Centric Measurement** – Audience measurement derived from server logs.

**Spider** – Robotic client operated by a search engine which downloads pages from multiple Websites.

**Universe** – Total population of audience being measured.

**User** – Viewer

**Viewer** – Person viewing content or ads on the Web.

**User Centric Measurement** – Web audience measurement based on the behavior of a sample of Web viewers. It measures Web usage in time and it is immune to caching. It collects demographic (and other) information from respondents and the measures are projectable to the universe represented by the sample.

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