

THE CREATIVE HERESY IN AUDIENCE MEASUREMENT

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This paper deals with the interesting question of whether some measure of creative effect should be included as a variable for calculating the size of the audience likely to see an outdoor display.

The authors believe it should be included, and that “noticeability” is the best candidate. They argue not just that Outdoor is unique, but that with VAI, it is ahead of the curve in audience measurement and other media will have to soon follow.

BACKGROUND

In the United States today all media are priced, bought and sold based on measures of persons exposed. These counts identify people who have had the “opportunity to see ads” carried by the medium, or an “OTS” for short.

For example, we buy TV to reach viewers with commercials, but we use *pushed a button* on a peplemeter as our behavioral proxy; although we know *pushed a button* does not mean viewing. And it certainly doesn’t mean viewing a commercial.

We don’t measure persons who *see ads* because the practical techniques for doing this use ad recall which measures the strength of the creative as well as the medium, and providing memorable creative is not considered media’s job (a point we will return to shortly with the ARF Media Model).¹⁾

Outdoor’s plan to start using *visibility* adjustments in the United States to reduce traffic counts and survey-generated passage data to tighter estimates of people actually *seeing* a billboard, shames all of the other media exposure numbers we plan and buy with.

OTS CREATES MISCHIEF

The loose fit of *opportunity to see* as a surrogate for *sees the advertising* creates mischief in all media, but especially in Outdoor where OTS is based on estimates of persons *passing by* an outdoor location.

Given Outdoor’s position as one element in a person’s crowded field of view, this passers-by count may substantially overstate persons actually *seeing* the outdoor display.

To correct for this, a system of Outdoor visibility adjustments (VAI) are being developed in the United States to reduce counts of *passers-by* to counts of persons *likely to see* the advertising. These VAI factors are estimates of how visible a board is to the average person passing by.²⁾

This research and approach builds on the POSTAR system developed in the United Kingdom but is part of a uniquely U.S. integrated Outdoor measurement system.³⁾

INTEGRATED MEASUREMENT

Jarvis and Eddleston (2003) have identified the key elements of an integrated Outdoor measurement system. These are:

- Travel surveys – not just blunt adjustments of traffic data to produce demos
- Exposure or visibility studies (VAI) to adjust audience measures from gross *OTS* to *LTS* measures
- Panel classification information to feed the visibility model
- Traffic counts to quantify weight of *OTS*.

Their point is, given an *on the street where the board is located* definition of exposure *OTS* a secondary measure of likelihood that the unit will be seen *LTS*, is needed. This is why some form of exposure adjustment (VAI) is recommended as part of the blueprint.

THE U.S. VAI MODEL

VAI reduces *OTS* for an Outdoor display based upon the likelihood that a driver or passenger passing by will in fact *see* it.

In TV the equivalent would be adjusting-down commercial minute viewers, who are often simply persons in the room with the TV set on, by using a qualifying measure of eyes-on the TV screen.

The VAI model has two elements:

1. The physical attributes of the Outdoor unit, including display size, type of road, distance from the road, angle to the road, etc. These are obtained by survey.
2. Discount factors estimating how much the physical attributes (above) in *combination*, diminish the probability of the display being seen. These discount factors are modeled from field- and laboratory-perception studies.

USING TRAFFIC DATA

The US Outdoor industry is unique and fortunate. Through its Traffic Audit Bureau (TAB) it maintains a comprehensive database on approximately 500,000 units of outdoor inventory in 178 geographically-defined local outdoor markets. The database contains two important kinds of information: 1) traffic counts for all major roads in the United States; and 2) the GPS location, type, dimensions and other characteristics of the outdoor units placed on these roads.⁴⁾

The outdoor unit passage data generated by this database is expanded by a conservative estimate of persons-per-car to provide the Daily Effective Circulation (DEC) counts for each unit, which are the basic currency for buying and selling Outdoor in the United States.

Because of its size, the United States cannot afford to conduct travel surveys in all outdoor markets. It is likely that only the largest markets will be surveyed. Only one study has been done to date, a Nielsen GPS-based study for Chicago.

Since survey research will not be available in most Outdoor markets, an important goal of the U.S. VAI initiative is to be able to apply the VAI adjustment model *directly* to the traffic count data, as well as to survey data.

The industry also plans to use the unit characteristics stored in the TAB inventory database to apply the VAI values to units and schedules. This eliminates the costs and delay required to re-survey each of 500,000+ units. This innovative U.S. VAI model will allow the more immediate use of VAI adjustments in most U.S. markets.

To make this work, the U.S. VAI model will focus on specific TAB-collected unit data (e.g., unit, size, type of road, distance from road, angle to the road, height above road, urban/suburban, environmental complexity, etc.) along with other variables.⁵⁾

NOTICEABILITY AS A VAI FACTOR

So much for the background. Now on to the main event. This paper focuses on the interesting question of whether some measure of *noticeability*, considered to be a creative effect, should be included as a variable in the VAI adjustment.

The authors believe *noticeability* should be included, but the conventional wisdom says “No” and for a reason.

THE ARF MEDIA MODEL

In 2002, the Advertising Research Foundation published a new model for media measurement. It identifies *advertising exposure* as the highest-level measurement which is not confused by creative effects and recommends it be used as the standard for media delivery.

ARF carefully draws the line between *advertising exposure* and *advertising attentiveness* because attentiveness has a creative component. The difference, in our words:

- *Advertising exposure* (OTS) is in theory a measure of eyes-open-persons delivered to the ad by the media vehicle (program, magazine issue, radio broadcast, etc.) The ad itself plays no role. It is totally a media effect.⁶⁾

- *Advertising attentiveness* is a mixed measure of media audience delivered to an ad and the noticeability of the ad itself.

In making this distinction, the ARF committee's concern is that a media vehicle not be credited or penalized for the strength or weakness of the creative messages it carries.

THE MESSAGE IS THE MEDIUM

Fair enough. But what if the medium is Outdoor, where the message is the medium, the ad itself is, in part, the media vehicle?⁷⁾ Using TV as the comparison, an outdoor display functions as both a program carrying a message and the message itself. It first attracts viewers to the display and only *then* communicates with them.

In outdoor, in a very literal way, changing the display alters the medium. And more important for this discussion, the display itself directly and substantially affects the count of people *likely to see* the advertising message.

The standard VAI adjustments developed in the UK acknowledge this by already including creative in the form unit size as one of several visibility factors. Larger units are more likely to be seen. Standard OTS measurements in TV, Radio or Print make no such concession for unit size.

With VAI adjustments, Outdoor measurement alone among media, allows the size of the unit (a creative factor) to determine the size of the reported audience. And this seems reasonable. We would argue that *noticeability* of the display serves a similar purpose. It increases the likelihood of seeing the ad.

In this new model, *noticeability* or *eye catching* is not a communication effect, but something more primal. It is the appearance, color, shape or configuration of the display that attracts the eye, independent of *what* is being advertised. There is a substantial body of research to support this position.

PERCEPTION RESEARCH

In the United States, relevant perception and eye-tracking research dates back over a quarter of a century.⁸⁾ These studies identified the key characteristics of outdoor boards that have attention *getting ability*. Learning from this research was to be integrated into an Outdoor Visibility Ratings System (OVRS), which was never fully implemented.⁹⁾

Perhaps, if the ORVS system had employed the model later developed by POSTAR, it would be alive and useful today.

A review of the visibility research central to VAI systems raises a puzzling issue. The variation of *Likelihood to See* audience as a percent of the *Opportunity to See* audience is significant. For example, in the 1983 PRS study the LTS audience was 53% of the OTS audience. In PRS's 1999-2000 studies it was 70%. Why the big difference?

Certainly differences in eye-tracking methods and the set of outdoor units used in each study could have contributed to the variation. However, we believe that differences in the creative tested also contributed, and there is growing body of research to support this.

THE NOTICEABILITY EFFECT

The PRS eye-tracking studies cited earlier provide a strong foundation. They included both recognition and recall measures of advertising performance leading the researcher, Elliot Young (1984), to conclude that traditional measures of ad recall grossly understate the true performance of outdoor advertising.

PRS found that outdoor boards generate approximately 2.5 times as much attention as recall scores would indicate. This is illustrated in six examples from the PRS 1983 study.

Table 1
PRS EFFICIENCY INDEX (YOUNG, 1984)

	<i>Attention</i>	<i>Recall</i>
<i>An Average Board</i>	100	100
<i>Agfa-Gevaert</i>	133	29
<i>Seagram's Gin</i>	118	56
<i>Chivas Regal</i>	117	56
<i>Harrah's</i>	111	48
<i>Oldsmobile</i>	98	24
<i>Merit</i>	93	15

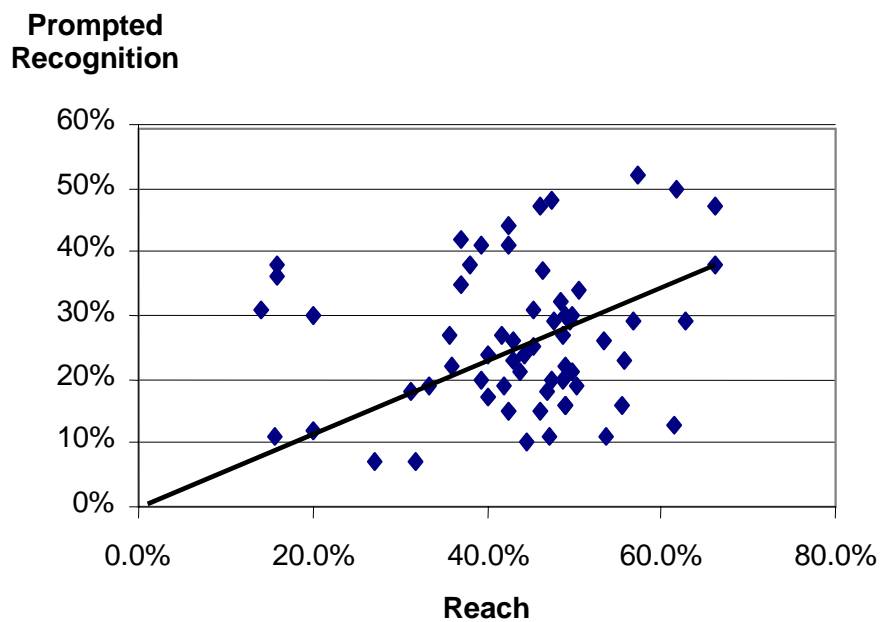
PRS found the most frequently mentioned reasons for recognizing (as distinct from recalling) a board was its *noticeability*, described as: "Bright/cheerful colors" (30%), and "Uniqueness/Movement, extension" (26%). The effect of content, described as "Catchy /clever/cute/ humorous" and "personal relevance" scored far lower at 14%.¹⁰⁾

The PRS data supports the idea that *noticeability* can directly influence *Likelihood to See*, without depending upon what is being advertised.

CREATIVE'S EFFECT ON VAI

Next we turn to the groundbreaking work done by Frazer, Cooper and Barber (1999). They reference David McVoy's analysis of 100 campaigns, which showed a very high correlation between the VAI adjusted coverage levels from POSTAR and levels of prompted recognition of an Outdoor campaign. This analysis provides significant post-hoc validation of the logic of the POSTAR VAI model (figure 1).

Figure 1
PROMPTED RECOGNITION AND REACH



*Source Mills and Allen Poster Track.

However, within that analysis, significant variations from the norm were again observed. To what degree was this caused by the noticeability of the creative treatment?

To answer the question, Leo Burnett and several UK contractors formed the Content Interest Group to examine in detail the drawing power of different creative treatments of several campaigns. The treatments tested were selected on the basis of their *visibility*.

The *CIG* results quantified the importance of creative draw or what we would call *noticeability*. The *Likely to See* (*LTS*) count of the low-visibility group was 52% below the average. *LTS* for the high visibility group was 29% above the average. The summary data are shown in table 2.

Table 2
CIG ANALYSIS OF CREATIVE TREATMENTS

<i>LTS Adjusted Campaign Delivery</i>	<i>Low Visibility</i>	<i>Average Visibility</i>	<i>High Visibility</i>
<i>Impact (Millions)</i>	176	340	440
<i>Indexed Delivery</i>	52	100	129

Another piece of evidence is the Starcom/Leo Burnett “Visible Results” study (1997). It found that, on average, consumers looked at 40% of all Outdoor sites studied; however the difference between the best and the worst poster in its ability to attract consumer attention was significant. The best scored at 100% the worst at only 22%. The Starcom/Burnett research team believes that both unit selection and creative treatment played a part in these scores.

The sum of the research suggests that the eye-catching qualities of the display help determine the size of the outdoor audience captured by *VAI* measurements in much the same way unit size does. Therefore, not including *noticeability* as a *VAI* variable seems inconsistent.

NOTICEABILITY AS A *VAI* VARIABLE

The contribution of creative treatment was not assessed in the existing *POSTAR* study because its objective was to gauge the visibility of the poster site, not the poster content. This is clearly in line with the *ARF* concern that a media vehicle not be credited or penalized for the strength or weakness of the creative messages it carries.

But we believe that the body of evidence shows that creative treatment has a major influence on the size of the *LTS* audience for Outdoor and should be considered as a variable in a future, more complete *VAI* model.

Furthermore, we believe that this treatment effect can be operationalized as the *noticeability* of the creative, measured by pre-testing to select a range of creative treatments for use in the *VAI* study. Then treatments with low, medium, and high *noticeability* can be randomly distributed into the *VAI* test scenarios as a control.

The use of *noticeability* as a control variable will accomplish three things:

- It will better eliminate the possible bias of creative influence in what we want to be a pure “media-driven” *LTS* base number.
- It will also allow the industry to present the range of high-to-low *LTS*, when adjusted for good, average and poor *noticeability*.¹¹⁾
- And finally, it will motivate advertisers to develop creative that better attracts audience to the outdoor unit and the advertiser’s message.

VAI AND OTHER MEDIA

The uniqueness of Outdoor as both the medium and the message is forcing us to stretch our thinking about how media and message interact to deliver audience. This is an important step for all media measurement because the VAI model is applicable to other media also.

An adjustment for unit size, for example, works across all media, not just Outdoor, why not use it?

The idea that we do not adjust TV *OTS* for length of message, 15’s versus 30’s, is puzzling. The idea that we do not adjust Print *OTS* for the use of fractional units is indefensible.¹²⁾

TV measurements use average-minute instead of commercial-minute, they do not factor-in commercial avoidance, distractions or leaving the room, and as a result they produce an audience number much larger than a count of *viewers probably seeing the commercial* would be.

Carrying the VAI analogy further, think of pod length, location of set, presence of others in room, presence of children in the room. All of these attributes are *recorded* by Nielsen. And all of them affect whether a commercial is likely to be seen. We simply have to determine which variables are most important and measure by how much each affects that probability and we have what’s needed to model VAI for TV.

Why is this important?

As we move to passive measurement, like the Personal Portable Meter (PPM),¹³⁾ a VAI model for each medium becomes urgent. All passive systems to date, measure proximity, “in the presence of a signal”, not “viewing, listening or reading.”

In its operational definition of *OTS*, passive measurement turns *all* media into Outdoor.

FOOTNOTES

1. *Making Better Media Decisions*, a publication of the Advertising Research Foundation, 2002.
2. VAI brings us back to the original ARF definition of vehicle exposure; “eyes-open confronted by the media vehicle carrying the advertising.” This definition was unwittingly weakened by the substitution of “opportunity to see” for vehicle exposure. The two are close, but not the same thing. “Opportunity to see” is vague. “Eyes open” is not.
3. As of the writing of this paper, the research design is being finalized. Fieldwork should begin during the summer of 2005 with project completion targeted for latter this year.
4. The completeness of the characteristics vary by plant and market. No pedestrian counts are currently included.
5. Most of the key variables used in existing VAI systems either exist or can be derived from the current TAB database and refined over time as warranted.
6. The ARF definition of OTS “eyes-open-persons” confronted by an ad no longer fits the reality of OTS measurement. More and more OTS measures persons in the presence of the medium. This argues for a VAI measure to adjust “opportunity to see” an ad to “Likely to see” an ad.
7. Outdoor did not figure prominently in the ARF Media Model committee discussions.
8. *The PRS Visibility Achieved by Outdoor Advertising, A Comprehensive Evaluation*, Perception Research 1983 and *The PRS Eye-tracking Studies, Validating Outdoor’s Impact in the Marketplace*, Perception Research, 1999-2000.
9. OVRS was developed by TAB in 1990 with the support of the Outdoor Advertising Association of America and the American Association of Advertising Agencies. OVRS was never fully implemented for several reasons (one being the expense associated with collecting inventory “characteristics” for every board in a market). But as part of an outdoor measurement model, it was significantly flawed. OVRS was kept separate from audience measures and worked backwards. It was not designed to reduce the OTS counts to a more appropriate LTS audience, like VAI is. It was a system of bonus points for achieving visibility.
10. In the ARF model, ad recognition measures advertising perception (saw the ad) rather than advertising communication (remembers the ad).
11. Measures of “noticeability” would not overwhelm VAI. The VAI value for a board is the product of the interaction of several measurements like unit size, angle to the road, height, speed of passing traffic, illumination, clutter, etc. In this multi-dimensional model, the importance of “noticeability” would be greater, for example, for the smaller off-road units than the larger facing traffic units.
12. See Erwin Ephron, *Deflating the Pumped-up Media Plan*, Mediaweek, October 11, 2004

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13. The PPM was developed by Arbitron as a multi-media passive audience measurement device. It will shortly be in commercial use in Canada.

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