Radio and the Internet: Powerful Complements for Advertisers

A New Study of How Radio Ads Can Complement Internet Campaigns

from

The Radio Ad lab

Conducted by Harris Interactive Inc.

February 2007
Executive Summary

The Radio Ad lab is conducting a new series of research projects under the umbrella theme, *Radio and the Consumer’s Mind: How Radio Works*. The goal is to continue learning if and how radio advertising affects consumers differently than other forms of marketing.

This new paper, *Radio and the Internet: Powerful Complements for Advertisers*, includes a late-2006 Internet-based experiment conducted by Harris Interactive Inc. for RAL. This test adds to knowledge from other research to provide an overview of how radio and the Internet could work well together as ad vehicles.

Our online test showed that recall of advertising is dramatically enhanced (27% vs. 6%) when a mix of radio and Internet ads is used compared to website ads alone. Radio ads can also improve website traffic and a brand’s emotional bond with consumers when added to Internet exposures.

Other highlights of this paper include the following:

1) **Both radio and the Internet reach light users of other media.** For example, we found that 41% of light (or non-) users of television are actually heavy users of radio or the Internet—not just users, but in the heaviest one-fifth of usage for either radio or the Internet.

2) **The daily reach of radio and the Internet together is similar to that of television.** On a daily basis, radio and the Internet together reach about 83% of the 18-54 population.

3) **Radio is often used simultaneously with the Internet.** Up to a third of Internet usage time includes simultaneous radio listening in some dayparts (especially during the day), and that’s true even for teens and young adults.

Overall, we hope this paper will help advertisers better understand the ways in which radio and Internet advertising could be a powerful combination, especially when the strengths of each medium are fully utilized in planning and buying.
Table of Contents

Executive Summary ........................................................................................................... 2
Table of Contents ............................................................................................................. 3
Radio and the Consumer's Mind: How Radio Works … continued .............................. 5
Radio and the Internet: Prior Information ........................................................................ 5
   Probable Similarities ...................................................................................................... 6
      Both Media Are Useful for Targeting ......................................................................... 6
      Both Radio and the Internet Reach Light Users of Other Media ............................... 6
Radio and the Internet Could Also Complement Each Other ......................................... 7
   Radio and the Internet Connect with Consumers Differently ...................................... 7
   Radio Can Add Mobility and Proximity-to-Purchase to an Internet Campaign ............. 9
   The Internet Can Add Visual Images and Detailed Factual Information ....................... 10
   Radio Can Drive Traffic to Websites ............................................................................ 10
   The Internet Can Collect Data from Individual Consumers Once Visitation Has Occurred .... 11
   Radio and the Internet Have Unique Reach Patterns ................................................... 11
   Radio Is Often Used Simultaneously with the Internet .................................................. 13
The Knowledge Gap ........................................................................................................ 15
The New Study: How It Was Done ................................................................................... 15
   Method Overview ........................................................................................................... 16
   The Stimuli .................................................................................................................. 17
   The Sample .................................................................................................................. 18
   Special Efforts .............................................................................................................. 19
   The Ads ....................................................................................................................... 20
   The Measures .............................................................................................................. 21
      Varying Expectations................................................................................................... 22
A “Research Effect” ......................................................................................................... 23
The Results: 2 vs. 1+1 ...................................................................................................... 25
Large Differences in the Ad Recall Measures .................................................................. 25
   Recall by Gender ........................................................................................................... 28
   Recall by Age ................................................................................................................. 29
   Recall for Blacks and Hispanics .................................................................................. 31
   Recall by Education ...................................................................................................... 32
Summary: Effect of Radio on Brand Recall ...................................................................... 33
Results for Non-Recall Measures .................................................................................... 33
   Review: The More Qualitative Measures ..................................................................... 33
   The Qualitative Results Overall ................................................................................... 34
   Website Visitation ........................................................................................................ 34
   Purchase Likelihood ...................................................................................................... 36
Brand Consideration............................................................................................................ 38
Emotional Connection ........................................................................................................... 40
Aspirational Fit............................................................................................................. 41
Interim Summary: Qualitative Measures ................................................................. 43
Conclusions ........................................................................................................ 43
Appreciation ........................................................................................................ 45
RAL Research Committee as of February 2007 .............................................. 46
RAL Funding Partners..................................................................................... 47
Technical Appendix.............................................................................................. 48
Technical Description, Data from Knowledge Networks ................................ 48
Harris Interactive Panel Methodology ................................................................. 50
Harris Interactive: What is Consumer Connection? ...................................... 52
Sample Disposition.......................................................................................... 54
Data Appendix: Other Tables and Charts ........................................................ 55
Radio and the Consumer's Mind: How Radio Works ... continued

With this new study, RAL is continuing its 2006-2007 series of research projects under the general theme, Radio and the Consumer's Mind: How Radio Works. We've established in previous studies, especially the landmark Radio’s ROI Advantage, that radio works, and it works in extremely cost-effective ways. Now we want to help the industry better understand how radio works.

This is in keeping with our charter to provide the media marketplace with free, public, and objective research about radio advertising. With broad representation of advertisers, agencies, and broadcasters, and with significant funding from the radio industry, RAL strives to create and disseminate meaningful research on radio advertising. (More information about the Radio Ad lab is available at http://RadioAdLab.org.)

In today’s advertising world, it’s now well established that multi-media approaches are sound. Most major advertisers try to use a mix of advertising media to reach consumers, and the challenge for planners isn’t just to pick a good medium—it’s to understand each medium’s strengths so that the best communication occurs across media.

That’s where we hope this series of studies will help. While the Radio Ad lab is oriented toward understanding radio, each of our new studies (including the one you’re reading now) is designed to better understand radio in the larger context of marketing communications.

In preparing this series, we believed that one of the highest-priority areas for study should be how radio advertising may work in combination with Internet advertising, and that’s the subject of the current project.

Radio and the Internet: Prior Information

Before embarking on a new primary study on radio and the Internet, the RAL Research Committee thought it would be useful to present different ways that we believe the two media are likely to intersect. Here are some points that we believe can be made about radio and the Internet as potential partners in advertising.
**Probable Similarities**

While radio and the Internet are very distinct media, we think there are at least two ways in which they have similar advertising attributes.

**Both Media Are Useful for Targeting**

We think it can be said safely that both radio and the Internet are appealing to advertisers because of their targeting capabilities.

Radio, of course, is well known for its ability to reach more tightly-defined groups of the population than other media. “Narrowcasting” is the nature of radio with its multitude of formats and demographic niches.

Internet advertising too can be focused more narrowly than some mass-oriented media, using the characteristics of website content to determine placement. And of course, certain types of Internet advertising (e.g., keyword search-based ads) are directly linked to the presumed interests of the surfer.

**Both Radio and the Internet Reach Light Users of Other Media**

This seems like an intuitive conclusion, but we can confirm this general tendency with some existing data.

**Mediamark Research** (MRI), for example, provides its regular multimedia audience estimates in quintiles. All MRI respondents are classified into fifths based on their level of usage of each of five media—television, radio, magazines, newspapers, and the Internet.¹

In a special tabulation commissioned by RAL, we can see that the lightest users of other media are often heavy users of radio or the Internet. In the chart below, we present information from MRI about the lightest-user/non-user groups for television, magazines, and newspapers. For each of those groups, we then present:

- Heavy Radio Users: The percent of the light-user group that is also a “heavy user” of radio by MRI’s definition.

¹ For more on MRI’s methodology, please see http://www.mediamark.com/mri/docs/natnlsurvey.html.

For current quintile definitions, please see the MRI codebook: http://codebook.mriplusonline.com/ProdCodeBook/prodcodebook.aspx?stKey=14&ScKey=3. For example, the lightest TV quintile are those viewing less than about 17 half hours per week in the MRI survey.
• Heavy Internet Users: The percent of the light-user group that is also a “heavy user” of the Internet by MRI’s definition.
• Heavy Radio OR Heavy Internet Users: The percent of the light-user group that is also a heavy user of either Radio or the Internet by MRI’s definition.

The TV data may be the most interesting. We see that 41% of light (or non-) users of television are actually heavy users of radio or the Internet—not just users, but in the heaviest one-fifth of usage for either radio or the Internet.

That suggests that radio and the Internet have unique roles to play in advertising planning.

**Radio and the Internet Could Also Complement Each Other**
While we see some similarities between the two media, the ways in which the two media actually complement each other may be even more striking. Some of these observations are common sense in nature, but for the record:

**Radio and the Internet Connect with Consumers Differently**
In our previous study, Personal Relevance Two: Radio’s Receptive Ad Environment, it was clear that radio and the Internet build different kinds of bridges to the consumer’s mind. To paraphrase from that 2006 study:²

• Radio ads may be more effective at making **emotional** connections with consumers, thanks to the much more emotional link that listeners have with the medium itself.

• Radio also provides a fertile medium for ad **receptivity**, in that consumers expect ads to be relevant to them, and are significantly more accepting of radio ads compared to the Internet. Radio is the medium that seems to be “speaking to me” when it comes to advertising.

• And of course, radio listeners have strong expectations of a **local** orientation for radio ads. Internet ads may catch up with that perception over time as geo-targeting becomes more prevalent, but this study serves as a good reminder that consumers see a connection between radio and their communities, and that bond doesn’t yet exist for the Internet.

• The Internet, meanwhile, connects at a more **factual level**, providing information that “helps you understand what is going on in the world around you.”

Those findings are echoed in work done in the United Kingdom by that country’s RAB and IAB organizations in a 2005 publication titled “Using radio with online: How radio and online combine to fulfil brand interactions.” They too found differences in what consumers expect of the two media:

> “Online is perceived as a convenient channel for helping people find what they want, when they want it, whereas radio is perceived as offering the human touch, helping to shape the moods and rhythm of the day.”

Their findings were further illustrated by these two charts borrowed from that publication:

---

3 [http://www.rab.co.uk/rab2006/showContent.aspx?id=1271](http://www.rab.co.uk/rab2006/showContent.aspx?id=1271), free registration required
Clearly, radio and the Internet have different modes of communicating with consumers, and the advertising within each medium will work differently. As a result, campaigns which use both media have the opportunity to connect with consumers in multiple ways.

**Radio Can Add Mobility and Proximity-to-Purchase to an Internet Campaign**

Radio is well known as a mobile medium, with significant amounts of listening occurring away from the home:

“...most workday radio listening occurs away from the home. From 7AM to 7PM, the majority of radio listening—up to three-fourths of all listening—occurs in the car, at work or in some location other than the listeners’ homes. The ease by which radio can be consumed, regardless of the venue, makes it unique among all media.”

Meanwhile, the Internet’s mobility is growing, but mobile usage is still a relatively small minority of its consumption (especially for ad-supported content).

---

Radio’s mobility—and therefore, its value for proximity to purchase and other attributes—isn’t news. But it suggests one way in which radio advertising can complement the more indoor nature of most Internet advertising.

**The Internet Can Add Visual Images and Detailed Factual Information**

Of course, the Internet can also complement radio advertising. Common sense says that certain types of Internet advertising—and the websites to which such ads can be linked—can serve as repositories of additional information, both visual and textual.

This is a logical complement to radio advertising, especially if the two media are planned with that synergy in mind.

**Radio Can Drive Traffic to Websites**

A part of “planning for synergy” could involve actually using radio advertising to cause website visitation.

We acknowledge that the effectiveness of that strategy isn’t yet fully proven in public research, but we again cite the research from the UK’s RAB and IAB with some evidence that radio can drive traffic to websites:

![Radio prompts significant follow-up online](chart)

We also have a website visitation measure in our new study, to be discussed later.

---

5 [http://www.rab.co.uk/rab2006/showContent.aspx?id=1271](http://www.rab.co.uk/rab2006/showContent.aspx?id=1271)
The Internet Can Collect Data from Individual Consumers Once Visitation Has Occurred
While radio may prove to be a good medium for driving traffic to websites, the site itself can excel in actually gathering data about the consumer if that’s a marketing objective. Again, proper planning can incorporate the complementary strengths of radio and the Internet.

Radio and the Internet Have Unique Reach Patterns...
…and that can make them work powerfully in combination. We discussed earlier that radio and the Internet both have heavy users among the lighter users of other media. But what about simple reach into the population at large?

As it turns out, radio and the Internet each have some unique users, as we can see in the next chart. Here we look at how well radio is able to reach into the universe of light and nonusers of the Internet, courtesy of MRI again:

![Radio Reaches Light and Non-Internet Users](image)

Across the board, radio’s reach into the world of light and non-users of the Internet is high, and that suggests that both media can make unique contributions to an ad campaign’s overall reach.

When you put those two media together, in fact, we find that the daily reach of radio and the Internet together is similar to that of television. In this next chart, we turn to Knowledge Networks (see Technical Appendix) for some estimates of combined-media total reach, controlling for duplication:
This chart suggests that **on a daily basis, radio and the Internet together reach about 83% of the 18-54 population.** Some of that (39.9 percentage points) comes from duplicated reach—population that could be reached with either medium. But radio contributes a unique 29.1 percentage points out of the total, and the Internet contributes a unique 13.9 points of the total.

Contrast that, for example, with the second column. Here we see that television plus the Internet can reach slightly more on a daily basis. But almost all of that is TV-related; only 4.4% is reached uniquely by the Internet.

This complementary aspect of radio and the Internet is clear even for young adults and teens:
This Knowledge Networks data suggest to us that radio and the Internet are a relatively powerful combination—that while either one alone has meaningful and valuable reach into the population, each also has some unique reach that can make the duo a distinctive combination for covering a large segment of the population.

Radio Is Often Used Simultaneously with the Internet
Finally, our background research confirmed that “simultaneous usage” is another important way to think about radio and the Internet. While the previous paragraphs talked about the importance of each medium’s unique reach into the population, we also need to discuss what happens with consumers that use both media.

With the help of Knowledge Networks (KN) again, we can confirm that a significant amount of Internet usage occurs simultaneously with radio listening, especially during daytime hours. KN calculates the “average audience” by dayparts for each medium measured in their survey, and also estimates the amount of that usage that was done simultaneously with another medium. In the chart below, we present the average audience for the Internet, broken down into the portions that were simultaneous with radio, simultaneous with television, or not simultaneous with either radio or TV:
As you can see, simultaneous Internet usage with TV is also high, and in all day-parts we examined. But we think the implications for advertisers may be somewhat different. Attention to the TV screen is almost necessarily diverted when the Internet is being used simultaneously; diversion from radio advertising is a subtler issue if it occurs at all.

This tendency toward high levels of simultaneous usage of radio during daytime Internet usage seems to hold true for young adults and teens as well, though for teens the Internet usage is much more of an afternoon phenomenon:
The bottom line: A radio set is often turned on while people use the Internet, and that may present opportunities for combined-exposure message impact or for using one medium to immediately affect behavior on the other.6

The Knowledge Gap

So what’s missing? Clearly, there are numerous reasons to see potential advertising synergy between radio and the Internet. What don’t we know about radio and the Internet that might be useful for advertisers?

We think the answer is a basic one: **Is there evidence of how a mixed radio/Internet campaign actually works?** And that’s the question we begin to illuminate with this new Radio Ad lab study.

The New Study: How It Was Done

As described above, radio and Internet advertising could complement each other in numerous ways. For example, a combined campaign could be more effective simply because more people are reached with the combined media than could be reached with either alone. It would take a substantial in-market study to measure the net ROI benefits of such marketing plan choices.

---

6 These levels of simultaneous usage are consistent with observations made in the United Kingdom, where “at any given time 20% of people who are online are also listening to radio.” (“Using radio with online,” RAB/UK and IAB/UK, 2005.)
Instead, RAL decided to focus on the actual impacts on consumers when they are reached. Specifically, we set out to answer a fairly simple question:

- Would a combination of radio and Internet exposures be more effective than Internet exposures alone?

To that end, the RAL Research Committee designed the following study, which was refined and fielded by Harris Interactive.

**Method Overview**

The original test design involved three cells of matching respondents:

- **Two Internet**: Two exposures to an Internet ad.
- **One Internet, One Radio**: One exposure to an Internet ad, and one exposure to the corresponding radio ad.
- **One Internet, Two Radio**: One exposure to an Internet ad, and two exposures to the corresponding radio ad.

One could fairly ask why we included the third cell, in which an “extra” radio spot was included in the mix. That’s because we weren’t sure how to factor ad costs into this equation.

Ideally, we would have simulated comparable ad budgets in this test, as we attempted to do in our prior *Benefits of Synergy* study. But frankly, the “typical” ad costs for the Internet and radio are very difficult to compare. It would be hard to claim that one “average” Internet ad costs about the same as X number of radio ads with any certainty (though we believe that the average for X is probably closer to two than to one).

We finally decided to attempt both variations, so that readers could make their own assumptions about ad pricing and budget comparables. (As it turns out, though, the second version with two radio ads presented methodological chal-
lenges which will be explained later, and the focus of the results discussion will end up being on the first and second cells.)

**The Stimuli**

We used a misdirection method in which respondents were asked to evaluate content rather than advertising. Advertising was embedded in the content, and the ad effects were measured after exposure to the content.

Specifically, each participant was invited to evaluate both the content of a website and the content of a radio program, both of which were presented online (through an Internet polling system described later).

Since the ads were being presented in context, within radio programming and within website content, we wanted to assure a reasonably good fit with a participant’s normal preferences. Therefore, we offered a choice of real radio programming from the following varied categories to each respondent:

- **News**
- **Soft Rock**
- **Light Entertainment News**
- **Country Music**
- **Urban Music**
- **Classic Rock**

We also offered website content of six types that were approximately analogous to the radio categories above.

The websites were generally six pages long, with a mixture of test ads and other ads included. The radio segments were about twelve minutes long with two commercial breaks that included both test ads and other ads. The breaks consisted of three commercials, with the test radio ads always being the second ad.

The test was programmed so that the questionnaire could not be completed without the respondent having seen all of the website pages and having had an opportunity to hear both of the commercial breaks in the radio segment (i.e., they couldn’t skip past the commercial breaks to get to the main questions).

The order of the exposure to website and radio content was rotated randomly across respondents.
Following the confirmed exposure to both sets of content, the full questionnaire was administered, as described later.

Note that we originally considered the addition of a television/Internet exposure cell to this study design, but concluded that the requirement of extended video streaming of programming with ads would make the simulation of TV exposures unrealistic and technically unreliable. Harris Interactive concurred with this conclusion, and specifically recommended against the inclusion of a TV component in the study.

**The Sample**

The research was conducted online among the Harris Interactive double opt-in online panel (see the Technical Appendix) during November and early December 2006. The target was 800 completions per cell, for a total of 2,400 completed interviews. (The final tabulated sample was 2,391.)

Harris Interactive conducts ongoing telephone surveys (in English) to estimate the size and characteristics of the Internet population in the U.S., and those estimates were used to establish both the sampling targets for the study, and to set weights for the completed questionnaires. For example, Harris estimates that the proportions of the Adult 18-54 Internet population that are Hispanic or African-American are 10% and 7%, respectively, and those became the targets for this study.

In addition, sample from the Harris Interactive panel was screened for age (the study was limited to Adults 18-54), sensitive industries (e.g., radio or Internet-publisher-associated people were screened out), AM/FM radio listening (at least three times per week), and Internet use other than e-mail (at least once per week).

The resulting sample for this study had the following characteristics, in comparison to Harris’ estimates of the 18-54 Internet universe. As you’ll see, the sample was very close to those universe characteristics for all but education, which was compensated for later through sample weighting:
The RAL study sample was weighted to Harris Interactive’s Internet universe estimates on the following variables:

- Age/Gender
- Race/Ethnicity
- Education
- Income
- Region
- Weekly internet usage
- Internet connection speed

**Special Efforts**

The Radio Ad lab is always focused on optimizing respondent cooperation with its research. To that end, RAL worked with Harris Interactive to design a unique test of web panel inducement methods for this project.

The special test approach was modeled on the standard survey method of “refusal conversion”—of going back to those who failed to complete a survey request, and using enhanced incentives to again seek their cooperation. In this test, the initial non-responders to the survey invitation were split randomly into two groups. The test group was then targeted for a series of escalating cash incentives for subsequent re-recruitment attempts. (The control group received...
Harris Interactive’s standard procedures involving panel-member “points” incentives.)

We thank Harris Interactive for working with us to develop this enhancement, as we believe it contributed to better cooperation rates with the study, and we expect to report separately on the specific outcomes of that study.

In the meantime, we can report that these special procedures did result in a statistically significant increase in cooperation with the study, with particular benefits for Blacks/African-Americans and Women. We also examined the qualification rate to ensure that the experimental cash incentive was not causing panelists to try to qualify for the survey. (For this survey, the qualification rate for the control group was not statistically different than the qualification rate of the experimental group.) More sample disposition data are available in the Technical Appendix.

**The Ads**

The ads used for this study were selected from twelve actual campaigns over the past two years that had actually used both radio and the Internet. These English-language campaigns were collected through a variety of sources including an ad-monitoring service, and we selected the eight campaigns for which we had reasonably good audio quality for the radio campaigns.

The eight radio ads were all thirty seconds in duration. We had originally considered some that were sixty seconds long, but those had to be excluded for a variety of reasons (poor audio quality from the monitoring source, for example). And again, we were limited to real campaigns which had actually used Internet advertising as well, which could have affected the nature of the radio campaigns available for testing.

The eight Internet ads were a mixture of static images, animated images, and Flash animation, of varying sizes. All had themes that were reasonably close to those of the radio ads.

Three of the radio ads had mentions of corresponding websites; two were in the form of brief “For more information, go to...” mentions, and one was a specific call to action to visit the advertiser’s website.

Because of the length of the test experience, each respondent was only exposed to one randomly-selected test campaign. This also allowed us to vary the wording of the follow-up questionnaires slightly to better fit the nature of the test cam-
campaign product category (e.g., “Use” vs. “Buy”). As a result, each campaign was presented to about 100 respondents within each of the three cells.

**For that reason and others, we will only be releasing masked results, with no specifics about individual campaigns or categories.** However, to better analyze some test results, we will examine findings on an “X out of 8” basis, to help understand consistency of effects.

The advertising categories represented by these campaigns were as follows:

- Fast Food
- Grocery/Meat
- OTC/Headache
- Travel
- Other Restaurant
- Grocery/Canned
- OTC/Breath
- Electronic Device

### The Measures

To measure the impacts of the different campaign mixes, the questionnaire that followed the exposures included an array of seven effectiveness measures. These include a number of variables from Harris Interactive’s proprietary [Consumer Connection](#) system which assesses:

- Consideration
- Behavior
- Emotional Connection
- Aspirational Fit

Specifically, our questionnaire included the following measures of impact:7

- Unaided recall
  - What brands did you see or hear advertised?
- Aided recall
  - Which of the following brands did you see or hear advertised?
- Website Visitation (likelihood of visiting the advertiser’s website)
- Purchase Likelihood (definitely/probably will purchase, etc.)
- Brand Consideration (consideration wording varies by type of product)
  - Ranges from “only brand considered” to “not at all considered”
- Brand Emotional Connection

---

7 Harris Interactive requested that we not provide the exact question wordings for the latter four questions, which they consider proprietary to [Consumer Connection](#).
– Ranges from “love” to “hate” the brand

• Brand Aspirational Fit (consistency with self-image)
  – Ranges from “Perfect” to “No Fit”

Across those seven metrics, we and Harris Interactive believe that we’ve captured many dimensions of consumer impact.

**Varying Expectations**

Based on counsel from Harris Interactive, we had varying expectations for the seven measures in this study.

Recall of brand names is a critical measure, of course, reflecting the first step in marketing impact. Without branding, other types of impact are necessarily limited. So recall will be key to understanding the potential for impact with consumers.

But while many ads can affect brand recall, not all of them actually make the desired *positive connection* with the consumer. Though a consumer can recall hearing or seeing an ad, they may not have the emotional connection with the brand that the advertiser wanted, or they might not be persuaded to actually purchase the brand.

For example, Harris Interactive provided RAL with some proprietary analyses from their work with a major Consumer Packaged Goods client across 32 copytested ads, to show how recall of an ad doesn’t necessarily correlate with an intention to purchase the product. That data (not shown here) demonstrated empirically that there’s only a very loose tendency for ads with better Branding (recall) scores to trend higher on Purchase Intent. Being well-remembered doesn’t necessarily predict intention to purchase.

Emotional connections showed a similar story. There was almost no direct relationship between memory of an ad and its positive connection to a consumer’s emotions.

Harris Interactive also cautioned RAL about another moderating influence. In typical copytesting situations, the measurement would typically take place among a narrowly defined respondent group—perhaps current users of the category, or those with an intention to purchase in the category.
In our study, however, we attempted to assess eight highly varied campaigns with a diverse population of adults 18-54. Some ads were oriented toward near-term purchase (e.g., with a special price on a specific product); others emphasized product features; and some were clearly image-building in nature. And each was likely to have originally targeted a narrower demographic than our 18-54 test panel.

Therefore, Harris Interactive encouraged RAL to have different expectations about these other five non-recall measures in the study. While all of our ads might be expected to have some impact on recall, not all of them might be expected to have dramatic impact on these other, more qualitative measures. For that reason, we'll be looking for patterns within the data (e.g., at the brand level) as well as in the toplines.

**A “Research Effect”**

Before we look for differences in effectiveness across the different media mixes we studied, we must first resolve one anomaly in the findings.

When we began examining the results of this study, there were perplexing findings for the third cell—the one in which a second radio spot was added to the mix. While recall scores were higher when we added a second radio spot, most of the more qualitative and emotional measures actually exhibited lower scores in the third cell. How could the use of a mix of one radio ad and one Internet ad work well, but the use of two radio ads and one Internet ad show declines for everything except brand recall?

Here’s an overview of what we observed when comparing the second group (one Internet ad exposure plus one radio exposure) to the third group (one Internet ad and two radio ads). Adding a second radio spot continued to lift brand recall over the group that had only one radio ad, but the other measures seemed to go in the other direction:
After closer inspection, Harris Interactive concluded that we were actually observing a “research effect”—a consequence of the way the study was conducted, rather than a good measure of effectiveness.

Here’s why: In an effort to minimize the burden on respondents, we kept the radio program samples in the test as short as possible, to around twelve minutes as discussed earlier. Those segments then only contained two commercial breaks, often only a few minutes apart.

That meant that participants in the third cell—those receiving two exposures to the same radio ad—were hearing that ad twice only a few minutes apart. Harris Interactive and the RAL Research Committee both now believe that those two exposures in such quick succession may actually have harmed the more emotions-linked measures. While recall of the brand names may have continued to grow with the second radio impression, the second exposure may have actually started to hurt whatever positive feelings were triggered by the first exposure.

Specifically, Harris concluded:

*The declines in the Internet +2 Radio cell measures could largely be due to the unrealistic exposure to the same brand’s radio advertising, creating the negative reactions from respondents.*
Plus, the actual copy of the individual brand’s radio advertising will also play a role in respondents’ reactions towards a brand.

We propose that the analysis of assessing the impact of including radio advertising with Internet advertising be viewed comparing the Internet Only cell to the Internet +1 Radio cell, and be done at the individual brand level.

After in-depth discussion, the RAL Research Committee concurred with that recommendation. We believe that the real learnings from this study will need to come from the comparison of the first two cells—of two Internet ad exposures to “1+1” (one Internet ad exposure plus one radio ad exposure). Our Results discussion below will therefore focus exclusively on those two test cells.

The Results: 2 vs. 1+1

As discussed earlier, we were encouraged to have different expectations for the recall results and the more perceptual measures, since the latter are so sensitive to the actual ad content. So let’s take a look at the recall data first, where we think all of the ad campaigns could be reasonably expected to have some impact. In short, this should be a fairly clean assessment of media effects.

Large Differences in the Ad Recall Measures

Current thinking in advertising is that mixed media can be more effective than single media, so it might be reasonable to expect benefits from mixed-media in this test. That would also be aligned with our first Benefits of Synergy study, in which radio ads combined with television or newspapers worked better than either television or newspapers alone.

We did see that same pattern very clearly in this new study with the two measures involving recall of the advertised brands. Let’s begin with the overall data for Adults 18-54, considering both unaided and aided recall of the brands advertised (after the test exposures):
As you can see, unaided recall for the mix of one Internet and one radio exposure for these advertisers was **four and a half times as high** as the unaided recall for two Internet ads alone.
The aided recall results (in which those not recalling advertised brands without prompting were then shown a list of brands) were consistent with the unprompted results. The mix of one radio and one Internet exposure had more than twice the aided recall of two Internet ads.

These are powerful findings, and both of the radio-mix differences from Internet-alone could be considered statistically significant at the 90% confidence level.8

Though we’re not looking for category-specific findings in this study, we did look for consistency across the eight brands used in the test. And indeed, both the unaided and aided recall results were extremely consistent; the differences between the Internet-only and the radio-mix groups were all large and statistically significant (in all but one pair):

---

8 Technically speaking, such confidence intervals can only be computed on pure probability samples, and a web panel like this doesn’t strictly qualify for that label. But we present the statistics in this paper to help readers assess which differences are more meaningful.
To determine whether these striking differences are widespread, we also examined the data for a number of demographic variations.\(^9\) Overall, we feel confident in saying that this pattern of much stronger recall for the radio mixes held up across demographics.

**Recall by Gender**

On both an unaided and an aided basis, both Men and Women (18-54) showed much higher recall with the radio-mix exposures than they did with Internet exposures alone, as you’ll see in the following charts:

\(^9\) As a check on the methodology, we also examined these findings and others on a basis of Internet connection speed, but the patterns were consistent there too. See the Data Appendix for that data.
Recall by Age
We also examined the two types of recall for three age groups, and found that
the patterns held very consistently for the younger and older ends of the spec-
trum:
### Unaided Recall by Age Group

**Pct Recalling Advertised Brands**

- Two Internet Ads
- One Internet, One Radio

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Two Internet Ads</th>
<th>One Internet, One Radio</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-34</td>
<td>4%</td>
<td>20%</td>
</tr>
<tr>
<td>25-44</td>
<td>4%</td>
<td>28%</td>
</tr>
<tr>
<td>35-54</td>
<td>7%</td>
<td>32%</td>
</tr>
</tbody>
</table>

18-34 N = ~330 each bar, 25-44 N = ~460 each, 35-54 N = ~465 each

*Stars mean "Significantly different from Two Internet Ads at 90% confidence level."

### Aided Recall by Age Group

**Pct Recalling Advertised Brands**

- Two Internet Ads
- One Internet, One Radio

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Two Internet Ads</th>
<th>One Internet, One Radio</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-34</td>
<td>22%</td>
<td>47%</td>
</tr>
<tr>
<td>25-44</td>
<td>24%</td>
<td>56%</td>
</tr>
<tr>
<td>35-54</td>
<td>28%</td>
<td>65%</td>
</tr>
</tbody>
</table>

18-34 N = ~330 each bar, 25-44 N = ~460 each, 35-54 N = ~465 each

*Stars mean "Significantly different from Two Internet Ads at 90% confidence level."
Recall for Blacks and Hispanics

The powerful effect of adding radio to the mix also appeared when we isolated the results for Blacks/African-Americans and Hispanics/Latinos (remembering that we tested only English ads):

**Unaided Recall by Race/Ethnicity**

<table>
<thead>
<tr>
<th>Pct Recalling Advertised Brands</th>
<th>Two Internet Ads</th>
<th>One Internet, One Radio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>27%</td>
<td>6%</td>
</tr>
<tr>
<td>Black/AA</td>
<td>21%</td>
<td>0%</td>
</tr>
<tr>
<td>Hispanic (English)</td>
<td>27%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Black N = ~55 per Column, Hispanic N = ~70 per Column

*Stars mean “Significantly different from Two Internet Ads at 90% confidence level.”

**Aided Recall by Race/Ethnicity**

<table>
<thead>
<tr>
<th>Pct Recalling Advertised Brands</th>
<th>Two Internet Ads</th>
<th>One Internet, One Radio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>58%</td>
<td>25%</td>
</tr>
<tr>
<td>Black/AA</td>
<td>52%</td>
<td>18%</td>
</tr>
<tr>
<td>Hispanic (English)</td>
<td>55%</td>
<td>28%</td>
</tr>
</tbody>
</table>

Black N = ~55 per Column, Hispanic N = ~70 per Column

*Stars mean “Significantly different from Two Internet Ads at 90% confidence level.”
Recall by Education

Finally, we examined our recall data by education level, and once again the patterns were very consistent with the other findings:

**Unaided Recall by Education**

Pct Recalling Advertised Brands

- Two Internet Ads
- One Internet, One Radio

**Aided Recall by Education**

Pct Recalling Advertised Brands

- Two Internet Ads
- One Internet, One Radio
Summary: Effect of Radio on Brand Recall

Clearly, our radio-mix test group had much better recall of the tested brands than did the group that was only exposed to two website ads. Regardless of gender, age, race, Hispanic origin, or education, the use of mixed exposures yielded several multiples of gain in unaided recall of the advertised brands. The benefits for aided recall were nearly as striking.

Though the orders of magnitude were impressive, we weren’t entirely surprised by these differences. In our earlier Benefits of Synergy study, we observed clear benefits to recall from adding radio to television-only and newspaper-only exposures.

Therefore, whether you want to assume that radio CPMs are lower or about the same as Internet CPMs, it appears that the impact of a mixed radio-Internet campaign on brand recall would be higher when budgets are held constant (among those reached by both media).

And that’s without considering the other synergies we discussed at the beginning of this paper. In this new study, we only examined the impact of mixed-media advertising on people that are actually exposed to both campaigns. But when other factors are considered, like complementary and compounding reach, advertisers may see other opportunities to benefit from mixing radio with Internet advertising.

Results for Non-Recall Measures

As described earlier, we had different expectations for the non-recall measures. These measures are heavily affected by the ad content as well as the medium, and if a specific ad’s content is not related to a particular measure, or if our panel’s broad demographics are not aligned with the target of the ad, we may see diminished impact for either or both media.

Review: The More Qualitative Measures

Briefly, let’s review the other non-recall measures in this study:

- Website Visitation (likelihood of visiting the advertiser’s website)
- Purchase Likelihood (definitely/probably will purchase, etc.)
- Brand Consideration (the only brand you consider/one of the few, etc.)
- Brand Emotional Connection (you love/hate the brand, etc.)
- Brand Aspirational Fit (perfect/good fit for how you see yourself, etc.)
All but Website Visitation are also components of Harris Interactive’s Consumer Connection system, which they describe as “a battery developed by Harris Interactive to measure the bond between the brand and the consumer.”

**The Qualitative Results Overall**
Despite the large differences in recall, it did turn out that these other measures showed a different pattern *in the aggregate*. Though there are some minor differences here and there, the average scores for these other measures tended to look very similar between the Internet-only group and the radio-mix group.

With guidance from Harris Interactive, though, we did see more interesting patterns when these measures are broken down across the eight brands we used. (Again, we had about 100 respondents per brand per test group.) As it turns out, there was a cluster of radio ads that showed reasonably consistent ability to deliver enhanced consumer perceptions across most of these measures. In short, the specific ads made a difference, but at least half the radio ads were successful in building effect beyond that seen with website ads alone.

**Website Visitation**
First, let’s examine the Website Visitation metric. Here we asked respondents, “Please indicate how likely you are to visit the website” for a list of brands, including the brand they were exposed to. Only three of the radio ads actually mentioned a website address, and only one of those was a specific “call to action” (vs. “for more information, go to…”), but perhaps we’ll see some synergy effects on this dimension anyway.

To help in reading these graphs, remember that these five questions are tabulated a bit differently than the recall questions. These questions are all asked in scale form, where people can express degrees of agreement, or express variations of intensity—unlike recall, which is a simple “yes or no.” Therefore, we’ll be showing you the “top two boxes” for each question, along with an average (mean) score for each scale.\(^{10}\)

We’ll begin with the *aggregated* data for Website Visitation, where the results were rather even between the Internet-only group and the radio-mix group:

\(^{10}\) When “mean scores” are shown, higher values always represent more positive perceptions of the brand, or stronger intentions to act in favor of the brand.
However, we believe the more interesting results lie within the distribution of effects across the eight ad campaigns used. Here we see that one brand was up significantly with the radio-mix exposures, and four more showed directional effects favoring the radio mix:
As it happens, two brands with large positive radio-mix effects—Brand 1 and Brand 3—were also two of the campaigns with specific website address mentions in the radio ads; Brand 1 had a specific call to action for a sweepstakes entry. (Brand 7 also had a website mention in the radio ad, but it was a brief “For more information…” mention for a very well-known brand name.)

Overall, then, we believe the brand-level data provides reasonable evidence that radio ads can help drive website traffic when included with Internet advertising. How well they do so is likely to depend on the ad content, but the capability is clearly there.

**Purchase Likelihood**

Another way that ads can affect exposed consumers, of course, is by shifting purchase intent. We assessed that here with a five-point scale question, measuring how likely respondents would be to purchase or use our test brands and others.

---

11 Because most of the learnings from these more-qualitative measures appear to lie with brand-level breakouts, we won’t be attempting to further break down these results by demographic; sample sizes would make unwise any further tabulations within brand. We have, in fact, examined the overall results by demographic for these measures, but the overall results look very much like the total-adults data presented in the paper.
Once again, the *aggregated* results suggested that the Internet-only and the radio-mix exposures had similar impacts, with virtually identical numbers of respondents indicating that they’d “definitely” or “probably” purchase or use the brand after receiving the test exposures:

As before, we see some interesting variations across the tested brands:
We see again that five brands showed directional differences toward better results with the radio mix, and three brands leaned in the other direction. While none of the differences was statistically significant, it’s worth noting that these five brands also showed the most lift from radio with Website Visitation, and on the Recall measures. We’re beginning to see a pattern here; we may simply have five radio ads in this study that are more effective than the others.

It’s also worth noting that the brands which show a positive skew toward radio-mix effects were those with lower overall scores on purchase likelihood. Brands 6-8 appear to be more established brands with higher overall standing with consumers. That suggests that there’s less room for either medium to make a difference for Brands 6-8 with only one or two exposures, though we can’t be sure of that hypothesis without corresponding pre-test scores.

**Brand Consideration**

The third of these non-recall measures is labeled Brand Consideration, and it consists of a question that asks whether a brand is the “only” brand considered, “one of a few brands” considered, etc. (on a four-point scale). Here too we saw that on average, the radio mix results were about the same as the Internet-only results:

When we examine the data by brand, we see a much more mixed pattern:
After you've seen all the charts that follow, it will be clear that this is the only measure that showed no real pattern at the brand level.

Harris Interactive explained this outcome to us by suggesting that Brand Consideration was probably the least likely to show any effects in this study design. Based on Harris' research in developing the Consumer Connection battery of questions:

We know that this question is the one Consumer Connection question that is influenced the most by category involvement.

In other words, only consumers that actually have a strong interest in the product category are likely to show effects on this measure for any given ad. Our test sample, though, was a broad cross-section of Internet users aged 18-54, with no product-category screening.

So we include this data for the sake of completeness. But we (and Harris Interactive) now believe that few clear conclusions can be drawn from it, given this study’s design.
Emotional Connection

Harris Interactive believes that a consumer’s emotional connection with a brand can be a uniquely powerful attribute—when it exists. However, we also know that not all ads that try to achieve that connection succeed, and not all ads are designed for that effect (though perhaps they should be more often).

That phenomenon was measured in this study by asking whether brands were loved, liked, etc. Once again, the aggregated results were comparable between the Internet-only exposures and the radio-mix exposures:

By brand, however, we saw that some of the radio-mix campaigns did move the needle more toward an emotional connection. And again, it was the same cluster of radio ad campaigns that tended to make a difference:
Now the pattern is even clearer: Brands 1-4, at least, show a pattern of increasing several kinds of qualitative impact when radio is included in the media mix, while all eight brands heightened their branding (recall) when radio was in the mix.

**Aspirational Fit**

In Harris Interactive’s extensive work on advertising effectiveness, the measure referred to as Aspirational Fit has emerged as a powerful predictor of consumer behavior (see Appendix). The metric itself is based on a question about whether the brand is consistent with a respondent’s self-image (using a five point scale).

The aggregated results were similar to those we saw for the other measures, with no significant differences between the Internet-only group and the radio-mix group (albeit with a small tilt toward the radio-mix cell):
But when we examined the individual brand results, we saw again that several of the individual brands did exhibit higher scores on Aspirational Fit with the radio mix, including Brands 1-3 again:
Interim Summary: Qualitative Measures

We began this section by saying that we had different expectations for the non-recall measures. These measures are heavily affected by the ad content as well as the medium, and if a specific ad’s content is not related to a particular measure, or if our panel’s broad demographics are not aligned with the target of the ad, we may see diminished impact for both media.

The analysis of effects by brand seems to bear out that expectation, as the results clearly varied by brand:

- Five of the eight brands experienced greater impact with a radio/Internet mix on Website Visitation and Purchase Likelihood. Some of those differences were statistically significant, even at the brand level.
- Four of those five brands also showed better radio/mix results on Aspirational Fit and Emotional Connection. Some of those differences were statistically significant, even at the brand level.
- The other three brands tended to show comparable effects for the radio/Internet mix as for the Internet-only mix; there were no statistically significant differences for those brands.

Overall, then, despite our general-population test design—with sample that wasn’t pre-screened for interest in these product categories—the potential for a radio/Internet mix seems clear. When the radio ads are effective, so too will be the media mix, on everything from encouraging website visitation to developing emotional bonds with consumers.

And that’s on top of the dramatic effects we saw for branding in the recall results.

Conclusions

This paper started with some existing observations about how and why radio and the Internet might be good partners in advertising. In brief, they included the following:

- Both media are useful for targeting.
- Both reach light users of other media.
- Radio and the Internet connect with consumers differently, and in potentially complementary ways.
- Radio can add mobility and proximity-to-purchase to an Internet campaign.
• The Internet can add visual images and detailed factual information to a Radio campaign.

• Radio can drive traffic to websites.

• The Internet can collect data from individual consumers once visitation has occurred.

• Radio and the Internet have unique reach patterns, and that can make them work powerfully in combination. On a daily basis, radio and the Internet together reach about 83% of the 18-54 population, nearly that of television’s daily reach.

• Radio is often used simultaneously with the Internet, with up to a third of Internet usage being accompanied by radio listening during some times of the day.

Now, with our new experiment from Harris Interactive, we see some strong evidence that people exposed to both radio and website ads are impacted more strongly than those exposed to website ads alone:

• Unaided recall for the mix of one Internet and one radio exposure for these advertisers was **four and a half times as high** as the unaided recall for two Internet ads alone. And the mix of one radio and one Internet exposure had **more than twice the aided recall** of two Internet ads.

• Furthermore, a mix of radio and Internet exposures also demonstrated **clear potential to elevate other kinds of consumer impact**, ranging from website visitation to emotional bonds, when the radio ads themselves are impactful. Five of the radio campaigns tested were especially effective.

Overall, the picture seems clear: **Radio and the Internet can be powerful advertising complements.** Whether the goal is to reach more people, or to reach them with greater impact, this particular combination of media seems to be a recipe that’s worthy of more consideration.
Appreciation

The Radio Ad lab would like to acknowledge the hard work of Harris Interactive Inc. on this project. Harris Interactive conducted all of the actual fieldwork and analysis on this project. In particular, we thank Philip Nudd, Research Director, Marketing Communications Research for Harris Interactive and the hands-on project leader for this study.

As always, we’re grateful to the members of the Radio Ad lab Research Committee for their volunteered time and expertise for this and all of our projects. They defined and refined the project originally; they helped in many details along the way; and of course, they reviewed the full study results and approved this summary. The outstanding advertiser, agency, and broadcast researchers who were members at the time of this paper are listed on the following page, and current members are always posted at the RAL website at http://RadioAdLab.org/committee.html.

In particular, we thank Mary Bennett (RAB), Sean Clark (RAB), Dr. Tom Evans (ABC Radio Networks), Barry Feldman (American Urban Radio Networks), Dr. Gary Heller (CBS Radio), Jerry Lee (WBEB-FM), Michael Orgera (Universal McCann), Michele Skettino (Interep), and Kim Vasey (mediaedge:cia) for their extra contributions to the design and execution of this project.

The funders and Board of the Radio Ad lab should receive special acknowledgement for all RAL research. Continuation of the RAL research program represents a major investment and a very public commitment to quality research about this medium, and we’re grateful for their ongoing support. The Funding Partner companies are listed in the following section, and the current RAL Board is listed at http://RadioAdLab.org/board.html.

Finally, RAL would like to acknowledge the contributions of RAL research consultant Jim Peacock of Peacock Research, Inc. His direction, insight and guidance have been a critical asset to this project. Among other things, Mr. Peacock is the author of this report.
RAL Research Committee as of February 2007

Agencies
Paul Hunt (Burrell Communications)
Alyce Abbe, Shari Anne Brill (Carat)
David Ernst, Janice Finkel-Greene (Initiative)
Judy Bahary (GM Planworks)
Matthew Warnecke (MediaCom)
Kim Vasey (mediaedge:cia)
Jeff Voigt (Mindshare)
Agnes Lukasewych (MPG)
Natalie Swed Stone (OMD)
Helen Katz, David Shiffman (Starcom MediaVest)
Michele Buslik (TargetCast tcm)
Madalyn Mako (The Media Kitchen)
Lucilla Iturralde-Rachev (The Vidal Partnership)
Irene Katsnelson, Michael Orgera (Universal McCann)
J. P. James (UniWorld Group)
Matt Feinberg (Zenith)

Advertisers
Debbie Vasquez (Coca-Cola)
Betsy Lazar (General Motors)
Glenn Roginski (GlaxoSmithKline)
Mark Dorrill (Home Depot)
Kaki Hinton, Jeni Cramer (Johnson & Johnson)
Paul Silverman (Novartis)
Rex Conklin, Ramon Portilla (Wal-Mart)

Broadcasters
Gary Heller (CBS Radio)
Jess Hanson (Clear Channel Radio)
Charlotte Lawyer (Consultant)
Kathleen Bohan (Univision Radio)
Jerry Lee (WBEB-FM, Committee Chair)
Radio Advertising Bureau
   Mary Bennett (Committee Vice Chair)
   Sean Clark
   Andy Rainey

Radio Networks
   Tom Evans (ABC)
   Barry Feldman (American Urban Radio Networks)
   Allison Gelardi (Jones MediaAmerica)
   Len Klatt (Premiere)
   Paul Bronstein (Westwood One)

Rep Groups
   Doug Catalanello (Interep)
   Gerry Boehme (Katz)

Arbitron Inc.
   Ed Cohen
   Carol Hanley

Advertising Research Foundation
   Bill Cook

Consultant to RAL
   Jim Peacock (Peacock Research, Inc.)

RAL Funding Partners

<table>
<thead>
<tr>
<th>Arbitron</th>
<th>Cox</th>
<th>Jones Media America</th>
</tr>
</thead>
<tbody>
<tr>
<td>AURN</td>
<td>Cromwell</td>
<td>Katz</td>
</tr>
<tr>
<td>Beasley</td>
<td>Emmis</td>
<td>Morris</td>
</tr>
<tr>
<td>Bonneville</td>
<td>Entercom</td>
<td>Premiere</td>
</tr>
<tr>
<td>Buckley</td>
<td>Federated</td>
<td>Renda</td>
</tr>
<tr>
<td>Carter</td>
<td>Greater Media</td>
<td>Saga</td>
</tr>
<tr>
<td>CBS Radio</td>
<td>Hall Communications</td>
<td>Sandusky Radio</td>
</tr>
<tr>
<td>Clear Channel</td>
<td>Hubbard</td>
<td>Univision</td>
</tr>
<tr>
<td>Commonwealth</td>
<td>ICBC</td>
<td>WBEB</td>
</tr>
<tr>
<td>Broadcasting</td>
<td>Interep</td>
<td>Westwood One</td>
</tr>
</tbody>
</table>
Technical Appendix

Technical Description, Data from Knowledge Networks
[Description provided by Knowledge Networks]

The estimates of media usage audiences contained in the Fall 2005 reports are based on time spent with media as reported by respondents in the MultiMedia Mentor survey conducted by Knowledge Networks, Inc./Statistical Research, Inc. from August 16, 2005 through February 21, 2006.

Types of Audience Estimates

1. Time Spent Data -- the estimated number of hours and minutes of television viewing (Total, Broadcast, and Cable), radio listening, newspaper readership, magazine readership, Internet/on-line, cinema advertising, yellow pages, and videogame usage during the daypart. Separate estimates are provided for Monday-Friday and Saturday-Sunday usage.

2. Average Audience -- the estimated average number of persons in the audience, for the specified daypart, expressed in thousands. The average audience is derived as a function of the time spent information.

3. Average One-Day Cume -- the average of cumulative audiences for each day of the week included in that section (e.g., Monday through Friday). A person is counted in the cumulative audience on any given day if he or she reports usage to a given media for more than ten minutes during the daypart.

4. Reach -- the number of persons in the audience of one or more units in the medium over the indicated number of weeks.

5. Simultaneous Usage -- the estimated average audience for persons using two key media pairs at the same time within a specified daypart. Average audience and cumulative audience estimates are provided for six dayparts for the following combinations of days and dayparts: Monday through Friday and Saturday and Sunday -- (a) 6:00 AM to 9:00 AM, (b) 9:00 AM to 12:00 N, (c) 12:00 N to 3:00 PM, (d) 3:00 PM to 6:00 PM, (e) 6:00 PM to 9:00 PM, and (f) 9:00 PM to 12:00 M. Combined daypart estimates average the audience estimates from the component dayparts.
**Definition of Audience**

In interpreting the audience estimates the following considerations should be kept in mind:

1. *MultiMedia Mentor* audience estimates are in terms of the number or percentage of persons in a specified age/sex category; the fact that this report expresses all reported audience estimates to the nearest thousand persons or to the nearest tenth of a percent should not be interpreted as a representation by Knowledge Networks, Inc. that the estimates are accurate to that degree.

2. Audience estimates to media usage are based on media usage during the survey period: August 16, 2005 through February 21, 2006.

3. A person has been counted in a media daypart audience to the extent of time spent with media during the daypart. The criteria for media usage are based on the following:
   - **Television:** In a location where a TV set was tuned to a program.
   - **Radio:** In a location where a radio was on.
   - **Internet/On-Line:** On-Line and/or using the Internet.
   - **Newspaper:** Reading or looking at a newspaper.
   - **Magazine:** Reading or looking at a magazine.
   - **Cinema:** Seated in the theater prior to the start of the feature film.
   - **Yellow Pages:** Refer to the Yellow Pages of the telephone directory either at home, at work, or elsewhere.
   - **Video Games:** Playing games that are either hand-held or that use a TV screen for a playing field.

4. Data in the report reflect total media usage in home and away from home.

5. If a respondent reports media usage of two different media in a given daypart, that respondent is counted in both media estimates (e.g., an individual who reports listening to radio and reading a newspaper in a daypart is counted in the time spent estimates for both radio and newspaper).

**Projections -- National Media Usage**

The audiences are projections to estimates of all persons 12 to 64 years of age in households in the United States (excluding Alaska and Hawaii) as of February 2004. The categories are defined below. (In addition to the questions described, special probes were used to clarify or delimit answers.)
**Harris Interactive Panel Methodology**

[Description provided by Harris Interactive]

Harris Interactive relies on the Harris Poll Online℠ panel as the primary sample source for online surveys. This multimillion member panel consists of potential respondents who have been recruited through online, telephone, mail, and in-person approaches to increase population coverage and enhance representativeness. All panel members have agreed to be invited to participate in online surveys through a confirmed opt-in approach.

**Online Interviewing Procedures**

Interviews are conducted using a self-administered, online questionnaire, via proprietary, web-assisted interviewing software. The Harris Poll Online interviewing system permits online data entry of survey responses by the respondents. Questionnaires are programmed into the system with the following checks:

- Question and response series
- Skip pattern
- Question rotation
- Range checks
- Mathematical checks
- Consistency checks
- Special edit procedures

All data are tabulated, checked for internal consistency and processed by computer. A series of computer-generated tables is then produced for each of the key sample groups showing the results of each survey question, both by the total number of respondents and by the key sub-groups.

**Control of the Sample**

To maintain the reliability and integrity in the sample, the following procedures are used:

Password protection - Each invitation contains a password that is assigned uniquely to that email address. The process prevents respondents from completing the same survey more than one time.
Reminder invitations - To increase the number of respondents in the survey and to improve overall response rates, as many as two additional reminder invitations are typically mailed at 2-4 day intervals to those respondents who have not yet participated.

Summary of the survey findings - To increase the number of respondents in the survey and to improve overall response rates, respondents are often provided with a select summary of survey responses at the conclusion of each survey.

Our data processing personnel conduct machine edits and additional cleaning of each data set. Our edit programs act as a verification of the skip instructions and other data checks that are written into the online program. The edit programs list any errors by case number, question number and type. Senior personnel may then inspect the original file and make appropriate corrections. We keep complete records of all such procedures.

Harris Interactive Statement Specific to This Study:

This Harris Poll was conducted online within the United States between November 29, 2006 and January 8, 2007 among 2,391 adults (aged 18 to 54). Figures for age, sex, race/ethnicity, education, region, household income, weekly Internet usage, and Internet connection speed were weighted where necessary to bring them into line with their actual proportions in the population.

All surveys are subject to several sources of error. These include: Sampling error (because only a sample of a population is interviewed), measurement error due to question wording and/or question order, deliberately or unintentionally inaccurate responses, nonresponse (including refusals), interviewer effects (when live interviewers are used) and weighting.

With one exception (sampling error) the magnitude of the errors that result cannot be estimated. There is, therefore, no way to calculate a finite “margin of error” for any survey and the use of these words should be avoided.

With pure probability samples, with 100 percent response rates, it is possible to calculate the probability that the sampling error (but not other sources of error) is not greater than some number. With a pure probability sample of 2,391 one could say with a ninety-five percent probability that the overall results would have a sampling error of +/-2 percentage points. Sampling error for data based on sub-samples would be higher and would vary. However, that does not take other sources of error into account. This online survey is not based on a probability sample and therefore no theoretical sampling error can be calculated.
**Harris Interactive: What is Consumer Connection?**

Consumer Connection is a battery developed by Harris interactive to measure the bond between the brand and the consumer. It is not a stand alone set of metrics, and in fact, we do not believe there are stand alone metrics, rather there is convergence of data, and explanation of data through looking at multiple variables. This battery is used in the context of tracking studies and copy testing. It consists of four basic questions, each of which illuminates an aspect of a bond with the brand. They are based on a continuum, and account for where in the nature of the bond you are entering this set of questions. They are meant to measure change, both positive and negative. The questions include:

- Cognitive Connection (consideration)
- Behavioral Connection
- Emotional Connection
- Aspirational Fit (is the image of the brand a good "fit" for you)

The modeling exercise demonstrated that while all play a part in furthering the understanding of how the brand is bonding with its audience, the Emotional Connection and Aspirational Fit data is most critical (in both tracking and in copy testing) when modeling to behavior reported and actual.

**Results of the Validation Modeling**

The modeling effort demonstrated empirically that consumer connection is a critical component of understanding behavior. Consequently, it can be said that consumer connection measures a dimension that has up until now, been absent from our understanding of what drives behavior, and how to "predict" it based on marketing research results.

**The Empirical Evidence**

The earliest indications that consumer connection was highly correlated to behavior came in copy testing. Data from the same category over three dozen ads demonstrated a very strong correlation between the Emotional Connection measure and Purchase Intent.

The next most immediate indicator came from the tracking results of the 2004 election, beginning with the Iowa data. Once again, it was the emotional connection data that proved most predictive of the end result.
At this juncture in time, sufficient in-market data across multiple categories had been collected to warrant a modeling effort, which was conducted using Tedesco Analytics as a partner. The results were overwhelming. Across every industry in for which there was data, either Emotional Connection or Aspirational Fit were among the top three drivers of behavior. What is astounding about this result is that these are questions that had not previously been asked, and yet they proved ESSENTIAL in determining behavior. When used as in input to predicting actual sales, this battery generated correlations to actual sales data between 80 and 90%, six weeks in advance of the in-market result.

Beyond the huge value of this finding itself is the diagnostic advantage provided by this battery of questions. While these measures (particularly Emotional Connection and Aspirational Fit) are invaluable in determining what a consumer will do, they are equally invaluable in understanding why they will do it. Just as Consumer Connection is an input to the behavioral model, it can be modeled as well to determine what specifically drives either positive or negative connection, and among which target groups. This provides major tactical advantages in fine tuning marketing communications to drive behavior.
Sample Disposition

Harris Interactive limited our disclosure of sample disposition data to the following statement provided by Harris:

Participation Metrics

The response rate was computed using AAPOR’s RR2 definition for “Internet Surveys of Specifically Named Persons.” The response rate for this study ranged from 11.6% to 13.5%, depending on the eligibility assumption made.

The AAPOR definition for RR2 is:

\[
RR2 = \frac{(I+P)}{[(I+P) + (R+NC+O) + e(UH+UO)]}
\]

1. Assuming that 100% of the email invitations returned as undeliverable were eligible, RR2 = 11.6%.
2. Assuming that 0% of the email invitations returned as undeliverable were eligible, RR2 = 13.5%.

Note that email invitations can be returned as undeliverable for a variety of reasons including systemic (e.g., delays caused by general Internet traffic and routing congestion) or respondent-related (e.g., inbox exceeding capacity allowed by that respondent’s ISP).

Refusals were defined as those who entered the survey but did not answer any questions or those who did not complete the initial screening section of the survey. All others who broke off without completing were classified as partial interviews.

If we had instead computed AAPOR’s RR1 (which excludes partial interview from the numerator), we would obtain a response rate of 12%, assuming that all invitations returned as undeliverable were ineligible respondents.

References

Data Appendix: Other Tables and Charts

Aided Recall by Connection Speed
Pct Recalling Advertised Brands

- Two Internet Ads
- One Internet, One Radio
- One Internet, Two Radio

Low-Speed N= ~80 per Column, High-Speed N= ~710 per Column

*Stars mean "Significantly different from Two Internet Ads at 90% confidence level."

Unaided Recall by Connection Speed
Pct Recalling Advertised Brands

- Two Internet Ads
- One Internet, One Radio
- One Internet, Two Radio

Low-Speed N= ~80 per Column, High-Speed N= ~710 per Column

*Stars mean "Significantly different from Two Internet Ads at 90% confidence level."