

USING THE 24-HOUR DAY AS THE COMMON DENOMINATOR FOR CROSS-MEDIA COMPARISONS: THE CASE OF MULTI-MEDIA MENTOR

Scott C. McDonald, Ph.D., Condé Nast Publications

Impetus for Cross-Media Planning Tools

Media-mix and cross-media deals are all the rage. The major media agencies are all hard at work developing media-mix optimizers, and one can hardly pick up a copy of Advertising Age or other trade publications without encountering a story about the latest attempt at integrated, cross-platform marketing. Large media companies like AOL Time Warner and Viacom attempt to sell broad, multi-media deals in an attempt to demonstrate the virtues of their broad reach. Agencies use cross-platform concepts to show off their agility with media in its multitudinous contexts. Advertisers hope to capitalize on the media-rich environment of today and to surround consumers with congruent advertising messages. Oh yes, and they also hope to extract a decent discount from the media by virtue of increasing the size and value of the overall cross-platform deal. Indeed, more than one wag has suggested that the current vogue for cross-platform deals is merely discounting in drag.

However several serious and sober-minded analyses have shown that even if advertisers shun the one-stop-shopping option afforded by the largest media giants, a broader mix of media *is* still apt to build reach and response more cost-effectively. You don't have to buy the advertising all from the same mega-company to get the benefit: adding variety to a television-heavy media plan will benefit you whether you buy from the tasting menu or a la carte. Erwin Ephron has written extensively on this in numerous venues, including this symposium. The argument is fairly simple. The law of diminishing returns says both reach and response build at a decreasing rate as dollars are added to a medium. The more cost-effective way to build a media schedule is to use several media in the campaign. Television is especially vulnerable to this kind of marginal economic analysis since it attracts the most dollars.

In my view, multi-media planning also got an inadvertent boost from the television industry itself. Television advertising costs in the United States went up about 50% between 1998 and 2000. Television advertising has always been expensive, and advertisers have always monitored those costs closely – but if a 50% price increase won't get your attention, I don't know what will. An overnight increase of 50% in energy costs in my native state of California nearly provoked civil disorder this past spring. It's the sort of thing that people notice! I doubt that similarly steep increases in TV costs escaped the notice of those advertisers traditionally hooked on that medium – particularly its most expensive primetime broadcast variety.

But media-mix planning is not easy to do. The currencies are different and not strictly commensurable. Though we are taking a good look at single-source or fusion-based solutions, there is no database currently available that links the major media databases in the United States. Moreover, the media themselves continue to fragment. We have many more specialized TV channels, many more niche magazines, more tiny and specialized radio markets, and an online medium that includes not only a galaxy of tiny websites but also an increasing number of platforms for delivery of Web-based content. It is generally harder to measure something small than to measure something large, and this fact makes real multi-media planning seem even more chimerical than it might have seemed 10 years ago. To make matters even worse, consumers continue to display such avid appetites for all media that they increasingly use them simultaneously. We might call it multi-tasking in "the attention economy", but it poses a real problem for multi-media planning since all of our media currencies assume discrete involvement with each medium. We assume that you are tuned to channel X or channel Y, but not to both at once. We assume that you are reading magazine A, regardless of whether you are watching TV at the same time that you are leafing through it. But real multi-media planning should take account of real multi-media use, rather than pretending that each medium is used sequentially or in discrete doses.

Multi-Media Mentor

Statistical Research has recently introduced a product in the United States intended to meet these multi-media planning needs. The product is called MultiMedia Mentor. I had invited the president of SRI, Gale Metzger, to come to Venice to talk about MultiMedia Mentor and he submitted a paper proposal that was accepted by the Programme Committee. However late this summer, Gale informed me that because of a family-related conflict, he could not participate after all. This put me in a predicament. I believed that the symposium should be made aware of MultiMedia Mentor and have an opportunity to discuss it, but its author could not attend. I have resolved this predicament by incorporating it into my own discussion of cross-media planning using time-based measures. However I have to make a disclaimer since I don't work for SRI. In fact, I am not 100% on board with the approach used by MultiMedia Mentor, and we do not presently buy it at Conde Nast. However it is under consideration, and I think it is an interesting attempt to create a product to facilitate cross-media planning.

Mentor builds on considerable previous work at SRI on how people use different media. SRI's roots are in television audience measurement, though it has also studied radio usage, internet usage and adoption of new technologies in the home. To date, its investigations of print media have been scant – though there are signs that this will soon change. SRI conducted pilot tests of Mentor in 2000 and moved to a full rollout earlier this year. At present, they are continuously measuring use of five media throughout the year – with a rolling sample of 5000 per year. All data are collected on the telephone using a standard RDD frame for the population aged 12 and older. Respondents are asked about their use of any of the five media – television, radio, online/internet, newspapers or magazines – at any time during six dayparts (6-9, 9-12, 12-3, 3-6, 6-9 or 9-12). If any media use is reported for a given daypart, the interview then loops back to that daypart to get details about how much time was spent with each medium; whether the media use was discrete or simultaneous; whether it was solitary or done with others; whether it was purposeful or accidental; whether it was in-home or out-of-home, and so forth. The interview then concludes with an extensive set of demographic and contextual variables, as well as some broad product use information. The average interview takes 19 minutes to complete – though light media users get away in as few as 7 minutes, while heavy media users can be on the telephone for a full 30 minutes.

Mentor takes these data and fashions them into a sophisticated planning software package that allocates an advertising budget across the five media according to parameters that the analyst sets. For example, an analyst could allocate zero dollars to a given medium because it may not fit with their campaign, or because they find it too difficult to buy. Or they could set a fixed percentage of budget for a particular medium on an a priori basis. They could use the “contextual” variables (purposeful use, solitary use, simultaneous use) to assign weights to the various media. They can use the system to optimize for reach, or to optimize for cost. In other words, they can use Mentor to run some empirically-based scenarios of media allocation.

Let me give a few examples of how this works. Say that the advertiser wants to reach computer-literate women aged 18-49 with a 4-week budget of \$1,500,000. In this case, Mentor is asked to solve for highest reach.¹ It would advise the following:

Table 1
Scenario for Reach Maximization
W 18-49, Computer Literate

	TRPS	%	Dollars
TV Day	58	23	420,978
Radio	57	23	284,589
Magazines	94	37	569,190
Online	42	17	224,917
Total	251	100	1,499,678

4-Week Reach Achieved: 76

Note that Mentor does not recommend any specific magazines or TV programs, so it is not useful at that level of specificity. However it probably does suggest wider diversification of media dollars across media than would typically be the case in most media plans. This is even more likely to be true when one optimizes on cost, given the high price of television.

For example, consider an advertiser trying to target credit card users (3+ times/week) aged 18-64. In this instance, the advertiser has set a 4-week reach goal of 65%, so the goal of the optimization is to solve for lowest cost. Here is how Mentor would advise allocating media dollars for maximum cost-efficiency:

Table 2
Scenario for Cost Optimization
Adults 18-64, Heavy Credit Card Use
4-Week Reach Goal: 65

	TRPS	%	Dollars
TV Early AM	19	13	417,121
TV Prime	28	19	846,080
Radio	60	41	634,296
Newspapers	2	2	71,637
Magazines	11	8	154,742
Online	27	18	286,560
Lowest Cost			\$2,410,436

In this instance, the comparatively low cost of radio and online give them a more significant part of the plan than might otherwise be the case. However both media are comparatively difficult to buy on a national basis, so the optimizer might be asked to set *a priori* limits on a given media in recognition of this fact.

One more example from mentor: an advertiser wants to reach a broad audience aged 18-64 of people who travel by air frequently for personal reasons (i.e. 3 or more personal air trips in the past year). With a 4-week budget of \$2,000,000, the advertiser wants to optimize for greatest reach. Mentor's solution follows.

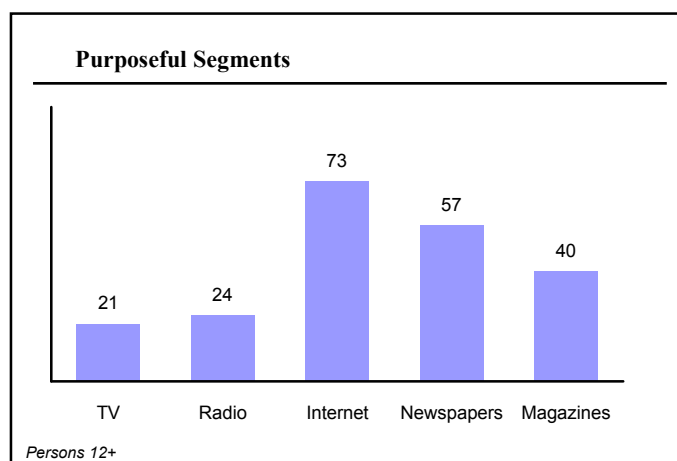
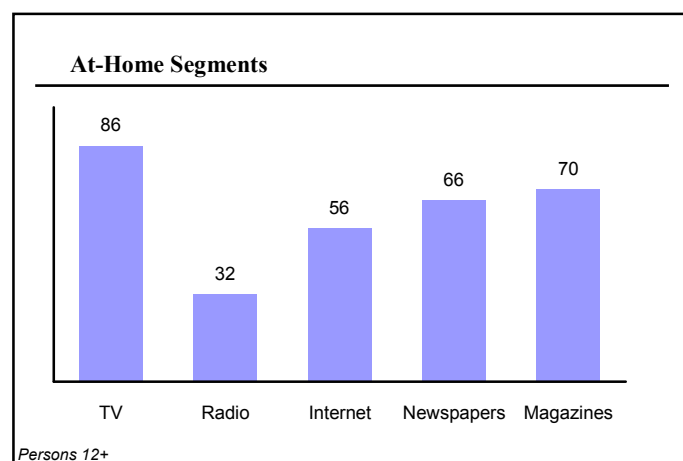
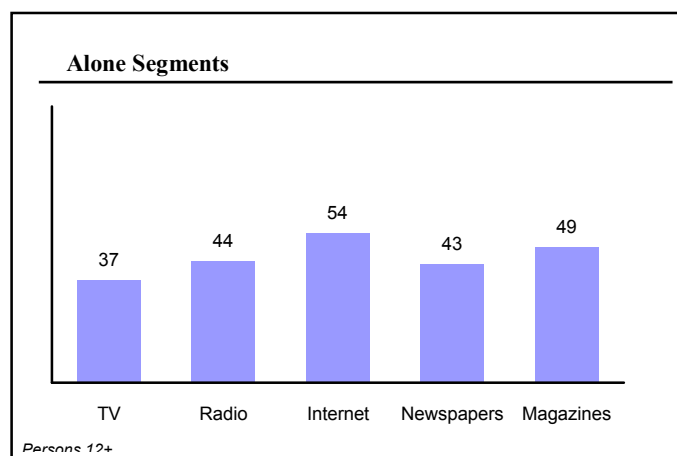
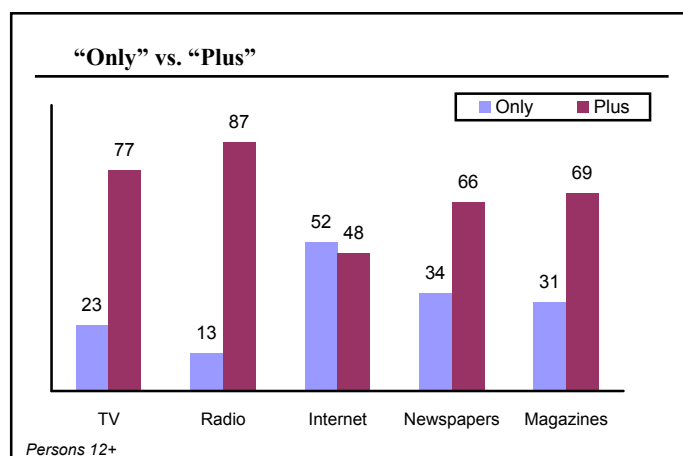
Table 3
Scenario for Reach Optimization
Adults 18-64, Heavy Personal Air Travel

	TRPS	%	Dollars
TV Early AM	15	10	348,508
TV Prime	12	8	376,308
Radio	60	40	661,081
Magazines	31	21	322,072
Online	31	21	244,092
Total	150	100	\$1,952,061
4-Week Reach: 67			

Current media planning practice usually does not contemplate such broad dispersion of dollars across media. In fact, it more often involves a set of *a priori* allocations – or sometimes “planning” consists simply of spending most of the money on television and doling out whatever is left over to print, radio or online, according to prior predilections. What I find interesting about MultiMedia Mentor is its knack for questioning those time-honored practices. Whether one is trying to optimize for reach or for cost, there tends to be a shift of dollars out of TV and into other media.

I mentioned before that Mentor also allows users to weight media according to contextual variables related to how the media are used. In a sense, this probably formalizes practices that have been in place at agencies for a long time, recognizing the fact that all media exposures are not created equal. Even the same media exposure is not of equal value for different ad campaigns. Some messages are suited to morning media, others to night. Some are suited for print, others to electronic media. And some customers are paying more attention under certain circumstances, while others are paying less attention. The evidence from SRI's own media use studies are that print media claim less consumer time, but are more apt to monopolize their time when they are spending that time. Radio gets a greater share of time, but is often in background mode with limited attention being paid to it. Media consumption that is purposeful is more impactful than media consumption that is unintentional. When people consume media alone, they tend to be more involved than when they consume it in the company of other people – especially if the others are children who (presumably) demand attention. Media consumed in the home – whether TV or print – tend to inspire higher involvement than media consumed elsewhere (i.e. TV in a bar, visitor viewing, newsstand perusal of magazines, etc.). And media consumed on their own get more attention than media consumed simultaneously with other media, or while

doing other activities like cleaning the house. Contextual information about the conditions of media consumption can allow advertising planners to assign different values to different media as advertising vehicles in a more disciplined, less impressionistic manner.



The patterns here are not too surprising, though the overall levels of multi-tasking reported here are a bit startling. Print media are more apt to be consumed on their own, while radio and TV are more likely to be used simultaneously with other media – and the internet is the most likely to be used exclusively without any other medium at hand. And the internet and magazines are the two media most likely to be used by an individual person alone, without distractions from others. TV and magazines are the two media most likely to be used in home, while radio is the most apt to be used out of home. And the internet and newspapers are the media most likely to be used purposefully – followed not too distantly by magazines. On the other hand, TV and radio are most often used in a casual, non-purposeful manner – more as wallpaper than as the focus of attention.

Mentor provides constantly updated information on the different circumstances under which exposures to different media occur. However it is agnostic on what evaluative weights should be associated with these different media exposure conditions. Thus, the value weights for discounting media by circumstance of exposure are left up to the individual planner. Some have commented that this is an invitation to mischief – to dressing up those old biases about media mix in new scientific robes. Perhaps this is true, but it does not strike me as a good argument for discarding the contextual information about conditions of media use since levels of attention in our media-saturated world ARE relevant to advertisers. Besides, judgment is always going to be an important part of the planning process, even with enhanced tools for optimization.

MultiMedia Mentor in Context

Mentor uses time as the common denominator for cross-media comparison. Specifically, it asks about media use YESTERDAY. In this, it has some parallel to the venerable first time read yesterday (FRY) approach long used in print media research. The SRI approach does not place excessive demands on respondent memory, nor does it burden respondents with cumbersome diaries. It is hard to argue with the proposition that units of time represent the fairest and most logical common denominators for cross-media comparisons, especially when the time-use measurement is supplemented with the contextual variables about the conditions of media use that I have already outlined.

Nevertheless, the methodology does leave total levels of print use looking very puny relative to TV, radio and online. This is an accurate reflection of reality from the perspective of any cross-section of time, but it misses the unique way in which many magazines accumulate audiences over longer expanses of time. According to MRI's recent accumulation study, weekly newsmagazines take four weeks to accumulate 90% of their total readers. Titles with high readers-per-copy accumulate their audiences even more slowly: *People* only reaches 46% of its readers within the first week of its availability. Women's magazines and titles like *Readers Digest* and *National Geographic* are even more stately in their pace of audience accumulation.

Of course, MultiMedia Mentor is not asking about any specific magazines, and it is not measuring a medium's reach *per se*. It is simply measuring the time that people report spending with the five media yesterday, and extrapolating that out to the 24-hour day. To apply different time frames for the different media would be to invite trouble; time, in effect then, would no longer be treated as a truly common denominator. But the planning tool that has been built using these time-based measurements is very much about reach and, as you saw from the examples presented, it explicitly allows a planner to optimize on reach. And to a large degree, reach and cost are the two **real** common denominators on which planners want to build their plans.

And Mentor reports print by target rating points (TRP's) in the recommended schedules. This shifts the print planning base from insertions to a more advertising-relevant unit and makes print more commensurable to the other media that a planner is juggling.

I still am left with a concern that print media don't get their fair shake here, despite the fact that every scenario I've seen using Mentor shifts dollars from TV into print. I pose it here to the symposium as a good riddle: if units of time are to be the common denominator for a fair cross-media comparison, do media with slow accumulation curves lose out? What solution would meet the requirements of both equity and efficiency?

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1. In these examples, media CPM's were supplied by Ephron, Papazian & Ephron from industry sources. The optimization against a user-target like "Computer Literate Women" is done in two steps. The program optimizes against the demo (W 18-49) and then translates the solution into user group TRP's (Computer Literate Women 18-49) from the Mentor database. This is necessary because media CPM's for a user target are generally not available.

