

# THE PROMISE OF FUSION

**Database fusion gives us  
a better way to target television**

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It's almost a species imperative. Brands strive to grow because big brands survive and prosper. They are the most profitable and the easiest to sustain.

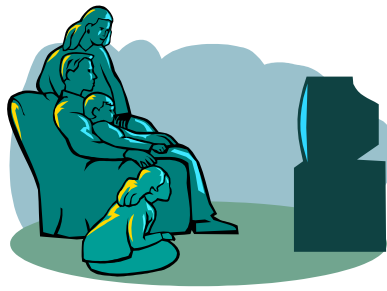


But it's hard to have big brands without big media, and that need for big media's reach in the face of TV fragmentation, has pushed advertisers towards media-mix.

It is more than a flow-chart strategy. Media-mix requires combining data sources to estimate cross-media duplication and campaign reach and frequency. Television and Print top the list of databases that need to be integrated for true media-mix planning. A monumental job.

## **Single-source**

But the brass ring of media-mix information isn't data integration, it's "single source," a study accurately measuring many media and product-use in a single national sample. The single-source studies we currently use are a shadow of that promise. The glaring problem is the television recall measurement they are forced to use.



Today it is impossible to obtain accurate TV information without using a meter because fragmentation results in shorter tuning intervals which neither the diary nor aided-recall can accurately record.

The alternative route to single-source might be to start with a meter panel, like the NTI Peoplemeter sample, and survey panel members for the added information that would make it single-source. But that is not an option. The burden of a lengthy MRI-type *print, other media and product usage survey* would substantially reduce already low meter panel cooperation rates, throwing into question the value of the TV data.

So we're at an impasse. We don't use single-source. We measure TV with a Peoplemeter panel and measure most everything else in different surveys. To do a mixed-media plan we use random duplication or MRI cross-media duplication rates or we make things up.

An alternative is data fusion.

### **Data fusion**

The fusion concept is simple. *Database A* is the magazine readership survey. *Database B* is the TV peoplemeter panel. *Database A* is 'married' to *Database B* at the respondent level by ascribing the survey-measured behavior of its respondents to matched peoplemeter panel members.

When this is done, the fused peoplemeter database acts as if its respondents had participated in the print survey and answered the magazine reading and product use questions.

That's the theory. If this seems spooky, you're giving fusion too much credit. The NTI panel member's ascribed reading will not be the same as his or her actual reading, but in aggregate the fused database will produce the same numbers as appear in the MRI readership survey and the NTI respondent database TV viewing will be unchanged.

The fusion match is usually limited to about a dozen characteristics collected by both surveys. If the ascribed behaviors used in planning are strongly associated with the links used to match respondents, the fusion will "work."<sup>1</sup>



In some cases, such as product categories where lifestyles rather than demography determine usage, the fusion "hooks" will not be as relevant and the fused data will not be as good.

But that usual question "how good is a fusion?" is the wrong question. We should be asking "is using fusion better than what we are currently doing?" Fusion works on the same statistical assumptions as when we target Women 18-49 for shampoo commercials because, per-capita, that group uses more shampoo. But the fusion match, ascribing shampoo use to TV viewers is likely to be better because it uses more variables.

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<sup>1</sup> Today's TV/Print fusions are limited by the absence of readership data in the TV database, but TV viewing data is usually collected in both.

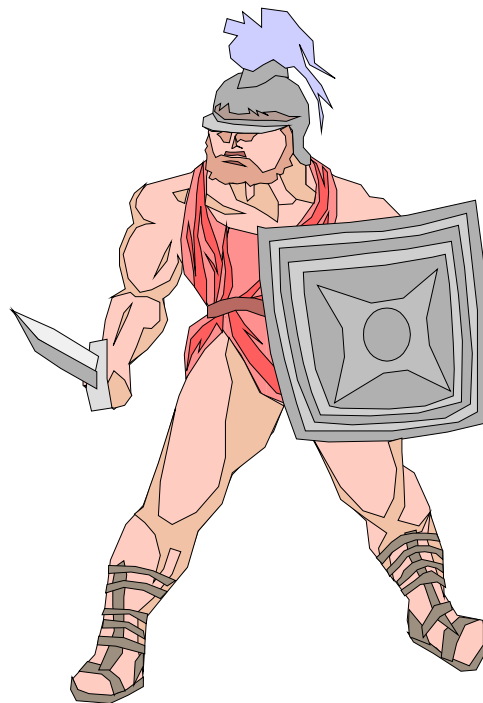
## The MARS/NTI fusion

The first US example of a fusion is the newly released MARS/NTI database.

It is a special purpose database. The *MARS Pharmaceutical Readership Study* is a national survey of magazine reading and other media use in a sample carefully designed to over-represent consumers suffering from specific ailments.

The over-sampling is done to obtain statistically reliable data for the small population groups important to *Direct-to-consumer* drug advertising.

In the fusion, individual respondent records from MARS are joined to the individual respondent records of the Nielsen Peoplemeter panel based upon characteristics the respondents have in common. The links include age, sex, a number of household variables, geography, cable/non-cable and volume of TV viewing.



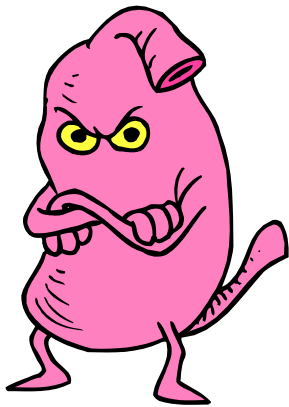
The resulting fused MARS/NTI database reports national estimates of magazine reading and TV viewing among the sufferers of specific ailments as if they were collected by a single-source survey using the Nielsen Peoplemeter to measure TV and the MARS frequency-of-reading questionnaire to measure Print.

## User-match versus Demo-match

Up to now the industry has focused on the value of fusion in estimating cross-media duplication for media-mix reach planning and optimization. An equally important use of fusion is in targeting television.

TV planning and buying have always relied upon simple demo matching to target potential buyers. This takes the prominent user age/sex demographic as reported by *User Survey A* and selects programs attracting viewers in that demo from *TV Survey B*. The problem with this approach is age/sex targets seldom define consumer markets. More often they just

show concentration of buyers. This results in “targeting error” of two kinds.



Many in the demo target will not be product users (false positives) and many users of a product will not be in the demo target (false negatives).

In DTC targeting where ailment incidence is often small, the targeting error can be large. For example, according to MARS, 17% of adults suffer from *Acid Reflux Disease*, a more serious form of Heartburn. The TV target for *acid reflux* is Adults 35+ because this group has the highest incidence of the ailment. Close to 75 percent of *acid reflux* sufferers are over 35. But only 19 percent of adults over 35 suffer from *acid reflux*. That means that 81 percent of the dollars spent targeting Adults 35+ are wasted.<sup>2</sup>

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<sup>2</sup> There is no way to reduce demo-targeting error. A more inclusive demo includes more people who are not in the target, and a narrower demo excludes more people who are the target.

Furthermore it is likely that adding some other combination of factors like marital status, lifestyle, geography, and income would help to better predict the ailment. That's what fusion provides.

Fusing MARS with NTI allows agencies to select TV networks, genres and programs, based upon the ascribed viewing of *acid reflux sufferers* rather than the simple age/sex demographic tendency of that sufferer group. This in theory can produce a major improvement in TV planning and buying.

### **Different Buying Decisions**

Moving from theory to practice, it seems to work. Since the MARS records are fused to NTI, the TV planning and buying currency at the respondent level, it is possible to run optimized schedules using the fused database to compare the cost consequences of using the demo target instead of the ailment. Here are the different solutions the Kantar X\*Pert TV optimizer produces. The targets compared are *Acid Reflux Sufferers* and *Adults 35+* (Table 1, next page).

**TABLE 1**  
**X\*pert TV Optimization.**  
**Adults 35+ versus Acid Reflux Sufferers**  
**65 Reach Goal.**

<b>DAY PART</b>	<b>Optimized on Adults 35+ GRP's</b>	<b>(translated to Acid Reflux Sufferers)</b>	<b>Optimized on Acid Reflux Sufferer GRP's</b>
Net A Prime Sitcoms	13.6	14	0
Net B Prime Sitcoms	11.6	12.9	15
Prime Law/Crime	34.9	33.2	36.2
Other Sitcoms	6.7	9.1	11.1
Cable Comedy	6.3	6.7	1.2
Cable Movies	7.9	8.7	6.4
Cable Selective	9.7	12.6	19.2
Cable News	11	10.7	7.9
Syndicated Talk	4	4.1	10.7
Other	50.5	40.6	36.4
Total TRP's	146.2	152.6	143.4
Reach	65	67	65
Total Dollars	\$3,227,969	–	\$2,816,094

X\*Pert shows a 65 reach of Adults 35+ requires 146 target points. The fused database shows that schedule generates 153 GRP's against *Acid Reflux Sufferers* and delivers a 67 reach. The higher numbers signal that targeting the demo results in buying too much television.

To reach 65 percent of *Acid Reflux Sufferers* requires only 143 target points distributed differently. This reduces the cost of a 65 reach from \$3,227,699 to \$2,816,094, a saving of 13 percent. So in this case it seems

possible to buy a TV reach goal for less by using the ailment in place of the demographic.

### Sinus Sufferers

Another example. This comparison is between *Adult Sinus Headache Sufferers* and Adults 18-49, the corresponding demo target (Table 2).

**TABLE 2**  
**X\*pert TV Optimization.**  
**Adults 18-to-49 Versus Sinus Headache Sufferers**  
**65 Reach Goal.**

<b>DAY PART</b>	<b>Optimized on Adults 35+ GRP's</b>	<b>(translated to Sinus Sufferers)</b>	<b>Optimized on Sinus Sufferers GRP's</b>
Net A Prime Sitcoms	8.3	8.0	0
Net B Prime Sitcoms	11.3	11.9	19.2
Prime Law/Crime	26.0	34.9	33.7
Other Sitcoms	20.6	17.3	13.8
Cable Comedy	3.2	3.4	9.2
Cable Movies	28.5	23.8	12.9
Cable Selective	13.1	12.6	19.2
Cable News	10.0	7.6	8.2
Network Sports	20.6	24.0	10.1
Other	48.1	71.4	24.1
Total TRP's	165.6	189.9	150.4
Reach	65	70	65
Total Dollars	\$3,880,229	-	\$2,959,056

X\*Pert shows a 65 reach of Adults 18-49 requires 166 target points. But this is overkill for *Sinus Sufferers*. The fused database shows it generates 190 *Sinus Sufferer* GRP's, many more than needed which takes the plan above the 65 reach goal to a 70.

To reach 65% of *Sinus Sufferers* requires only 150 target points distributed differently. This costs \$2,959,056 instead of the original \$3,880,229 or 24% less than the original plan.

Both examples suggest it is possible to buy TV target reach for less using fused ailment data in place of demographics. The open question is "why does this happen?" Should we be convinced by these results?

### **Some ailments increase TV viewing**



I think the fusion is sound enough to use for planning in these cases because MARS internal data show ailments like *Acid Reflux* and *Sinus Headache* correlate with viewing levels higher than those of the surrogate age demos (Adults 35+ and Adults 18-49). And the MARS/NTI fusion uses volume of viewing as a linking variable.

Differential viewing rates support the idea that it is possible to achieve a reach goal of ailment sufferers with fewer GRP's. MARS shows that *Acid Reflux Sufferer* viewing indexes at 110 compared to all adults, while the demo target (Adults 35+) indexes at 102. MARS also reports that adults suffering from acid reflux, who are in the demo group, have a viewing index of 113.

The same pattern holds for a large number of ailments like *backache*, *depression*, *insomnia* and *obesity*, where the sufferer is perhaps less active than his or her demo counterpart because of the ailment itself (Table 3).

**TABLE 3**  
**TV Viewing Rates**  
**Ailment versus TV Planning Demo**

	Demo	Ailment	Ailment/Demo
Acid Reflux (A 35+)	102	110	113
Sinus (A 18-49)	98	107	104
Backache (A18-49)	98	106	106
Depression (W 18-49)	100	107	102
Insomnia (A 18+)	100	109	109
Obesity (W 18-64)	101	110	110

MARS 2002

### Targeting Error is the issue

The usual question “how good is a fusion?” is the wrong question. We should be asking “is using the fusion better than what we are currently doing?” The yardstick “better” and the problem of “Targeting error” are key to understanding the value of fusion. As the *Acid Reflux* and *Sinus* examples make clear, in cases where TV viewing is increased by the ailment, the benefits of fusion seem pretty obvious. They make the considerable point that age/sex targeting may waste a lot of DTC dollars.<sup>3</sup>

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<sup>3</sup> There will certainly be cases where the user group views less than the surrogate demo and requires more dollars than the plan assumes.

One suspects that tighter targeting through fusion could help a wider range of advertised products. Especially those where use correlates with more or less TV viewing.

### Conclusion

Up to now the industry has focused on the value of fusion in estimating cross-media duplication for media-mix reach planning and optimization. An equally important use of fusion is in targeting television.



Many planners, including the author, have been skeptical of the value of planning TV based on usage data because television does not target user groups very well. But it now seems obvious that where usage correlates with TV viewing, the value of user targeting can be enormous.

- September 10, 2002 -