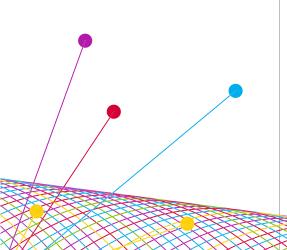
WHAT'S NFXT

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USING SINGLE-SOURCE DATA TO DRIVE PRECISE, PROFITABLE MARKETING

BY KARTHIK RAO, MARK SNEATHEN, NADA BRADBURY AND MIKE NAZZARO

Single-source databases enabled by Big Data can ensure you reach the people who really want what you have to offer. This is a bonanza for advertisers and their agencies, who can make their marketing more precise, and for media publishers, who can promote their programs to the advertisers for whom they are most valuable.

Advertisers and their agencies have always wrestled with finding the most cost-effective way to deliver the right message to the right consumer, and media publishers have always aimed to deliver the most valuable audiences to them. As media proliferates, forcing advertisers to allocate dollars among an increasing number of options from budgets already under pressure, we are seeing an intensification of this challenge. In such an environment, advertisers are looking for every scrap of certainty they can get about the value of their investment, and media companies, for their part, are working to demonstrate that they offer advertisers the highest ROI.

The holy grail of this search has always been single-source data – data that measures media exposure and transaction information for the same people. A single-source database allows sales to be attributed to advertising with great precision.

Unfortunately, such databases have generally been constrained by low sample size, have offered limited purchase detail, were very hard to build, and were ultimately too expensive to be worthwhile. Consequently, people have relied on other alternatives for assessing the sales and profit generated by advertising campaigns. Tools such as segmentation, focus groups and surveys have been used to identify audiences, and methodologies such as data fusion have been applied to estimate the

sales lift of advertising. These tools have been essential in improving the precision with which an advertiser can reach his or her most promising group of consumers, and are today an integral part of marketing and media planning.

SINGLE-SOURCE
DATABASES ALLOW
COMPANIES TO
UNDERSTAND, AT AN
INDIVIDUAL, ANONYMIZED
LEVEL, WHO IS WATCHING
AND NOT WATCHING
THEIR ADS, AND WHO IS
BUYING AND NOT BUYING
THEIR GOODS.

But they share at least one shortcoming: Because they do not make it possible to match any given individual's degree of exposure to an advertising campaign with his or her purchase behavior, it is not possible to do anything more than broadly estimate the ROI of a given advertising campaign. In today's environment, with marketing budgets under pressure, the demand for more precise evidence of ROI is very high indeed.

Single-source databases are really the only way to tackle this problem, because they allow companies to match, at an individual, anonymized level, who is watching and not watching their ads, and who is buying and not buying their goods. This can

yield profound results. It is typical, for instance, that there should be a considerable number of consumers who never made any part of an advertiser's purchased demographic, but who are buying its products in significant quantities. If they are seeing the company's ads, it may be only by happenstance. Groups of consumers of this kind represent an underexploited marketing opportunity. It is great that they are moved to purchase when they see the particular product advertised. But they don't see it advertised often, because the advertising isn't being shown on the programs they are mostly watching – which is because the advertiser doesn't know they are heavy buyers of its products.

For instance, advertisers routinely seek programming that reaches adults up to the age of 49. But our data show that this demographic is responsible for only about half of the purchase dollars in some important categories. Focusing on this group means you will miss a significant part of your audience. Since the last of the baby boomer cohort is now aging out of this demographic, this situation will only intensify. A single-source database makes this visible, creating an opportunity for greater precision as compelling as the need.

We spoke of single-source data as the holy grail of marketers. Like the real Holy Grail, people have been seeking it for a long time. Today, however, it may be said that single-source data is truly here, and leading companies are beginning to use it. Big data — in the form of sufficient information that can be processed at an affordable cost — has addressed the problems that stymied single-source data in the past, and granted advertisers, agencies, and media publishers their wish.

SCALE AT THE INTERSECTION OF "WATCH" AND "BUY"

We ourselves use single-source databases created and processed by third parties on our behalf, so that we never know anybody's identity. These databases match "watch" data from our own media panels with two very large "buy" databases. For consumer packaged goods (CPG) products, we leverage a loyalty database that contains the frequent-shopper purchases of 60 million households. To cover categories beyond CPG, we leverage a set of data that covers, in the U.S., the vast majority of purchases made using credit cards and about a third of all consumer deposit accounts. Today's coverage extends to nearly 125 million unique cardholders who account for nearly 1. 4 billion credit transactions, and 55 million consumer accounts representing more than 1.7 billion debit transactions, per month. Because a single-source database created from our media panel and this purchase data matches the actual viewing and purchase behavior of anonymous individuals (to control for privacy), it is possible to calculate precisely the sales lift between those exposed to an ad campaign (and at what frequency) and those not exposed.



BIG DATA HAS
ADDRESSED
THE PROBLEMS
THAT STYMIED
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IN THE PAST,
AND GRANTED
ADVERTISERS,
AGENCIES,
AND MEDIA
PUBLISHERS
THEIR WISH.



Besides CPG data from loyalty cards, the product and service categories for which this approach offers opportunity are those, naturally, for which consumers frequently use credit cards, debit cards, or automatic bill payments from their checking accounts. Such categories most notably include retailers, restaurants — within which casual dining represents a particular opportunity, given the sizeable spend and intense competition for "share of stomach" in this subcategory — travel, entertainment, financial services, and telecommunications. The growth of online shopping, currently expanding much more quickly than its offline cousin, offers another increasingly attractive opportunity for this approach.

For an advertiser, the detail available from the media panel allows the analysis of purchase behavior for the watchers of a given program, and a determination of what programs will offer the best return on its marketing investment.

The situation is equally powerful for the media publisher. Once you can offer a particular clothing retailer a program rating not just for, say, adult women up to the age of 49, but an implied rating for that program for that particular advertiser, you can make that program much more attractive to the advertiser. You can also identify, for that clothing retailer, programs heavily watched by its direct competitor (and vice versa for the competitor, of course).

We should note that, even with the combination of CPG loyalty data and a vast array of purchase data, far from all categories of purchase are covered. The categories that *are* covered represent approximately \$17 billion dollars in advertising spend, out of a total of \$72 billion.¹ As such, these data are not a substitute for traditional media ratings — but nevertheless provide enormously valuable, additional information. Where the data exists, shows can now be valued based on how well they reach category and brand buyers. Today, many of the major networks and many large advertisers are incorporating this data into their business decisions.

Exhibit 1 shows how single-source data can be used to refine a marketing plan developed using marketing mix modeling for broad allocation decisions. Essentially, once you have defined your audience and developed a plan based on a given number of gross rating points (GRPs), you use single-source data to optimize the plan, measure its actual effectiveness in terms of sales lift, and determine the actual ROI of the campaign.

¹ 2011 numbers.

That result then feeds in to the next cycle, so that your ad budget becomes more efficient each time you move around the circle. It is worth stressing that the key to the exercise is that only single-source can establish a precise campaign-level ROI and thus accountability for the results of the whole campaign.

USING SINGLE-SOURCE ANALYTICS INITIATES A VIRTUOUS CYCLE OF IMPROVEMENT

EXHIBIT 1



A BONANZA FOR ADVERTISERS AND THEIR AGENCIES

The virtues are obvious. Now, advertisers' agencies can study the media consumption of a brand's heaviest consumers, and direct advertising dollars accordingly. In terms of what we call *reach*, *resonance* and *reaction*, this data can determine who is being reached by an ad, who is resonating most powerfully to it, and whose reaction is changing as a result – and by how much.

Consider: A program has a rating of 2.0 for a particular demographic. Matching watch and buy data in the way we have described might show that that program "over-indexes" by 20 percent for women "jewelry buyers." We can say, then, that the show carries an implied program rating of 2.4 for the jewelry-purchasing "buyergraphic," as it is sometimes called. If the advertiser or its agency can purchase advertising on that show at the price the publisher charges for a show with a rating of 2.0, it is essentially getting an extra 20 percent in value for its money, or a 16.7 percent discount, depending on which way you wish to look at it. Early experience suggests that taking advantage of this more precise advertising mechanism offers effective program ratings improvements for combinations of shows and goods over a range of 15-50 percent. (It is still early days yet, hence the wide range).

Exhibit 2 uses illustrative data to show how being able to "cut" viewer data by purchase behavior shows the relative attractiveness of different programs to a credit card provider seeking to advertise (a score of 1 indicates that the program's traditional rating exactly matches its value to this particular advertiser).

Another way of looking at this is to note that precision advertising of this kind helps advertisers and media providers alike minimize the age-old problem of some portion of advertising money being spent communicating with consumers who have no interest in the product or service being advertised – thus reducing waste and making the entire process more efficient.

One advertiser we worked with wanted to know as precisely as possible which programs were being watched by the segments into which it divided the consumers it wished to serve. We conducted an analysis of the viewership of a number of programs on which the advertiser's agency was placing its ads. We were able to show that its effective return on investment, in terms of the reach it was seeking, varied widely by program and by segment. In some cases, it was reaching just 70 percent of the number it could expect to reach, given the program's overall GRP. In some cases, it was reaching 154 percent of the expected number. In these two cases, then, the effective or implied ratings for the actual show for these given segments were, respectively 0.7 and 1.54 times the GRP calculated on standard demographic data.²

² Although the numbers have been changed for confidentiality reasons, they are representative of the analysis.

Ultimately, the company reallocated its advertising spend, with the result that reach increased and its effective cost per thousand (CPM) went down by almost 20 percent.

In addition, by comparing changes in spending behavior of those not exposed to the advertising to those exposed at several different levels, the company and its agency were able to determine the relative value of exposure and non-exposure, and the value of a brief, moderate or long advertising campaign.

RELATIVE ATTRACTIVENESS OF SIX PROGRAMS TO A CREDIT CARD COMPANY BY BEHAVIORAL SEGMENT

EXHIBIT 2



A BONANZA FOR MEDIA PUBLISHERS, TOO

What is good for the goose is good for the gander, too.

Media players, for their part, are delighted to be able to show advertisers exactly why their network is (or a certain set of programs are) the place to go — and argue for higher CPMs as a result. If publishers can show a reasonable expectation of a higher ROI from an advertising campaign (and prove it during the campaign), then why should they not charge higher CPMs? And why should the advertiser, recognizing that their revenue is going up, not be willing to pay accordingly for the improvement? Needless to say, the publisher wants the "investment" in ROI to be as high as possible, while the advertiser wants the "return" to be as high as possible — but this is no more than the bargain struck daily in the marketplace since the first trader made his (or her) first sale. The transaction has greater value to both sides of the deal. They will negotiate to see who can claim the greater portion of this increased value.

This new data is also particularly powerful for publishers because of the way they have historically sold inventory. For many years now, networks have bundled inventory in a way that doesn't necessarily claim the full power of individual programs. Single-source data will reveal the viewers to whom each separate piece of inventory is attractive on its own terms, allowing the network to market it to ideal buyers.

More generally, matching purchase activity to viewing activity allows publishers to present advertisers with the power of any given program in reaching their desired audience, rather than with the generalized power of the program based on standard demographics. For instance, suppose a movie studio was considering placing spots on two shows on the same network that each had similar ratings among adults up to age 49. Say that "heavy movie spenders" were overrepresented in the first show's audience, and underrepresented in that of the second show. Given a choice, which program would you run the preview on?

We find the same thing in category after category. Three prime time shows had ratings that ranged from just above 2 to just below 3.5. But creating an "implied rating" for these shows for people most likely to buy a particular service generated a range from just above 1 to over 8.5.

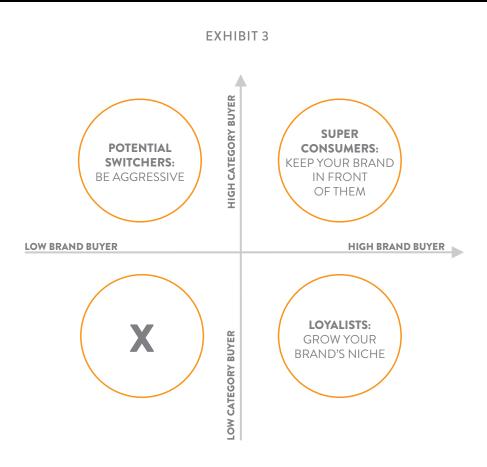
Publishers can also show advertisers precise data comparing consumers' buying activity in their product category with the propensity of the same buyers to purchase the advertisers' particular brands within that category. The different forms that relationship can take translate readily into selling strategies for a particular advertiser.

For example, exhibit 3 can be used to segment a publisher's shows based on how each show's viewers relate to a given brand and to the category in general. What should the advertiser do? Those at top left who buy a lot in the category but not much of a given brand can be thought of as potential switchers, and approached as such. The names given to the other segments, and the way the advertiser should approach them, should be clear.

Thinking about programs in this way is of course another way of emphasizing that there is probably a promising audience for any program, and often a more promising one than that suggested by a traditional rating. Our data reveals that many shows' audiences are undervalued by advertisers today. Single-source can help media companies identify these shows and get them appropriately included in media buys.

Obviously, publishers are going to have trouble marketing to this advertiser any of their programs that fall into the lower-left quadrant. They should examine other categories and brands that would put these programs into one of the more attractive segments.

CATEGORY SPENDERS / BRAND SPENDERS A FRAMEWORK FOR MAXIMIZING ADVERTISER RETURN



Publishers can use this data to strengthen their relationship with advertisers, meet competition from other networks, and make progress with advertisers in categories they struggle to attract. They should look in particular at segments in which they feel they may not be earning their "fair share" of advertising spend, and communicate with agencies accordingly.

The use of this kind of single-source data is particularly suited to today's fragmenting media environment, because it allows publishers to help advertisers reach more specific segments of the market more efficiently. A show that struggles when measured on basic demographics might turn out to be a diamond in the rough when it comes to a more specific buying audience – and so become a more attractive venue for the relevant advertiser.

CONSIDERATIONS

As we suggested above, single-source data will lead to new ways of doing business in many parts of the advertising ecosystem. Each participant – advertiser, agency, or publisher – will need to come to grips with the skill sets involved in best exploiting this new world. Audience behavior will be looked at in new ways. Different ways of aligning media inventory with new audience profiles to maximize efficiency and impact will emerge. When the technology and processes, which are still new, are mature, the cycle-time on which advertisers can improve a campaign will shorten. In the past, one had to run a campaign, monitor its effects through analysis of two distinct datasets, and fine-tune accordingly. It seems reasonable to suppose that, as with so many other technologies, this one will eventually achieve the ability to enable modification of a campaign "in-flight." That is a long way off – but still shows that, generally, for the technology to achieve its full potential, many steps involved in planning and executing a typical advertising campaign will have to change.

The other major challenge, of course, is that this powerful new complement to traditional measurements applies only to those categories tracked by the available purchase data. People do not buy cars or houses with a credit or debit card. The details of what is purchased at a store are not necessarily visible in the data, even though the store will always be identified. As suggested above, our current estimate is that single-source data can be lined up against a little less than 25 percent of U.S. TV advertising spend.

So this powerful tool is not a panacea. And improving your ability to locate the right audience does nothing to relieve a marketer or media publisher of the challenge of presenting good creative in a favorable programming context.

Finally, the promise of an audience that will deliver the best sales lift should not turn marketers' or their agencies' heads too thoroughly: sales lift is a short-term measure, and should not be allowed to crowd out attention to long-term brand goals. It's nice to have a bird in the hand, but you need to keep an eye on the two in the bush as well.

* * * *

This is what's next. The market has already started to move in pursuit of greater advertising precision. Advertisers, agencies, and publishers generally understand the transformative nature of this capability; and some players are moving faster than others to take advantage of it. Advertisers who are in the lead are increasing their ability to connect with their key customers. Media companies are getting closer to claiming the full value of their audiences. Perhaps the grail quest need not last forever.

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