TOMORROW'S SCAN PLANNING:
ISSUES, AND A DAY IN THE LIFE

by

Bill Harvey
Editor and Publisher
The Marketing Pulse

Thank you, Roger. Good morning. In the next few minutes I'd like to address two topics: what's standing in the way of tomorrow's UPC scanner-informed advertising and media planning, that is the issues... and when we overcome those obstacles, what will it be like to fly a media planner's desk in the year 2000?

SCAN PLANNING:
ISSUES, AND A DAY IN THE LIFE

TMP TO ARF
JUNE 29, 1992

By way of backdrop, back in the 60's, my partner Len Matthews and I dissented from the prevailing viewpoint of the time that advertising ought not to try to measure itself in terms of sales results. This viewpoint came down by way of Russ Colley's book Defining Advertising Goals for Measuring Advertising Results (DAGMAR). That otherwise excellent book argued that, since so many factors other than advertising contributed to sales results, advertising should set pre-post quantitative awareness/attitude goals instead of sales goals.

Our dissenting viewpoint was that the advertiser was ultimately going to demand sales accountability. And if the agencies were to be dragged kicking and screaming, there would be a shift to marketing tools willing to accept the sales criterion-- such as direct response and promotion.

BACKGROUND

WE WERE CASSANDRAS REGARDING UPC IN THE DAYS OF DAGMAR.

Unfortunately, we were right. Not only does direct response continue its unending doubledigit growth while mass media starve for growth, but promotion has expanded from 40% to 60% of marketing dollars among the top 100 packaged goods companies since the 60's.

What's all that got to do with "Scan Planning"? Answer: Media planning which aims at satisfying sales scanner measurement implies an advertising philosophy which has transcended the DAGMAR prohibition. Scan planning means that **advertising has a shot at bringing back those promotion dollars by becoming more sales-effect-provable.**

DIRECT RESPONSE

% OF ADVERTISING 14.1%   33.3%   50.5%
Source: Grey Advertising: NEMS/MSR
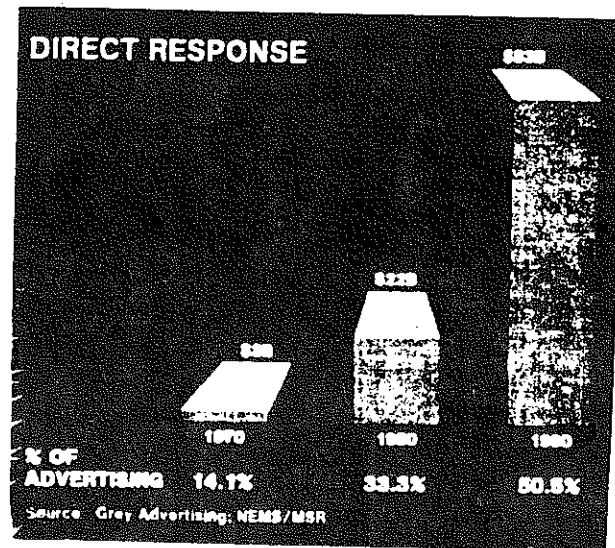
What, then, stands in the way of this promising vision of advertising renaissance? And, what will life be like once we've arrived at the New Age?

- **ISSUES TO SOLVE ON THE WAY.**
- **WHAT "THERE" MIGHT BE LIKE.**

The issues are executional choices we have to make. Do we want grey or taupe seats? What about a CD player?

How should we gather singlesource data? Which method would reduce decision risk to the asymptote?

How should we compact the data so that insight jumps into our minds the fastest under fire-- "Semiotics" of report design.

How do we decide who the proper target is?

How do we know how much advertising contributed to the bottom line-- the original DAGMAR question.

ISSUES

- **DATABASE DESIGN**
- **DECISION CRYSTALLIZING SEMIOTICS**
- **TARGETING PHILOSOPHIES**
- **STANDARDS FOR CREDITING ADVERTISING**
- **BULK VS. POSITION BUYING**
- **FREQUENCY OF UPDATING**

Can we target brand users and still buy in the Upfront?

How often should we look at the changes reflected in the datastream? Daily? Weekly? Monthly?

The methodology issues provoke strong opinions. The media research community seethes like the Middle East with ideological passions.

In an ideal world, the datastream is continuous, you can break out top markets or look at a truly national figure, it's all based on probability sampling with a decent sample size.

Media Research Standards apply. That is, a response rate in the 40% to 70% range, metering of all sets, systematic sample rotation, no volunteer panelists, etc.

Ultimately, it's a passive portable peoplemeter which measures all media, promotion, and PR exposure, as well as sales response to these influences, including price paid, whether on deal, etc.

"All other things being equal" (mutata mutandis) assumptions required by use of two or more samples, has been eliminated in this perfect world.

And of course it's fast easy and cheap.

If we compromised on all of these things to a slight degree, could we shift our success yardstick to sales a bit faster, and would such a move be better for the industry than standing on the ceremony of imagined methodological perfection?

What data should we look at when we only have time to look at a tiny fraction of the avalanche?

And how often should we look?

DATABASE DESIGN DESIDERATA

- TIMELINESS/CONTINUOUS
- TRULY NATIONAL, PLUS TOP MARKET LOCALS
- PROBABILITY SAMPLING
- SAMPLE SIZE OF X+
- MEDIA RESEARCH STANDARDS
- AS PASSIVE AS POSSIBLE
- WHAT TO GATHER VS. NOT TO GATHER BY QUESTIONNAIRE
- MINIMUM NECESSITY FOR FUSION/ASCRIPTION/ MUTATA MUTANDIS
- ALL-MEDIA/PROMOTION
- PORTABILITY
- FRIENDLY FAST CHEAP COMPREHENSIVE ACCESS

TARGETING PHILOSOPHIES

- SCHIZOID STATE OF ART
- SOPHISTICATED MARKETING TARGETS
- SIMPLISTIC BUYING TARGETS
- LITANY OF QUALMS REGARDING CHANGE

Probably we should ask the computer to only show us the divergences from the plan.

Eliminating all redundant data.

Using graphics and color to penetrate our minds to the insight level as quickly as possible.

DECISION CRYSTALLIZATION

HOW TO LOOK AT THE DATA SO AS TO PROBABILIZE THE BEST DECISIONS?

- HOW OFTEN/WHEN TO LOOK
- ONLY EXCEPTIONS LOOKED AT (NON-REDUNDANCIES)
- USING GRAPHICS, COLOR

The industry exhibits a split personality when it comes to targeting. The marketing folks set highly psychographic targets. Then the media folks buy Women 25-54.

When the emperor's and empress's nudity is mentioned, a litany of qualms is recited as defense against the need to consider changing the latter oversimplified media target.

Why should "Northern Exposure" skew to Brand X Purchasers? If I can't explain it (in a Freudian or other context), I won't take advantage of it.

Everyone buys my category. How could I need to target? (Forget the fact that my brand has spent hundreds of millions of dollars to establish a unique personality which attracts people of like personality, and that the human race may be a century away from a definitive science of psychology.)

Etcetera.

Are we losing potential benefit by yielding to these qualms instead of moving to sales-based media planning? What's the evidence?

QUALMS ETC

- WHY PROGRAM/BRAND OR PRODUCT SKEW?
- MY CATEGORY UNIVERSAL
- SAMPLE SIZE
- STABILITY
- BULK BUYING
- BUYERS WILL QUIT
- NO TIME
- NO MONEY, ETC.

David Ogilvy and Dr. Andrew Ehrenberg conducted massive analyses of singlesource data ahead of most anyone. The studies showed that advertising gains brand triers early in a brand's career, but then for most of a brand's life advertising works specifically to bring back the early triers more frequently than they would otherwise come back to the brand.

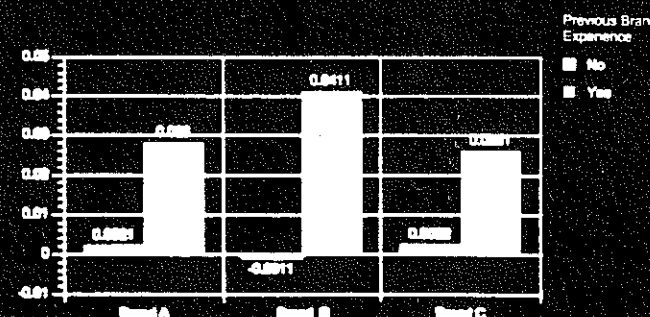## ADVERTISING INCREASES BRAND PROFITABILITY MOSTLY THESE TWO WAYS:

1. ESTABLISHING DESIRE-TO-TRY AT LAUNCH.

2. ADDING VALUE TO BRAND PERCEPTION AMONG TRIERS; THUS INCREASING USAGE SHARE IN MULTIBRAND-USAGE CONTEXT.

Professors at Yale, Dartmouth, and the University of Chicago analyzed IRI data which showed that Ogilvy and Ehrenberg were right. The high bars in this graph are the sales effects of advertising among people with previous experience using the advertised brand. The low (or in these poor reproductions almost invisible) bars are the sales effects of advertising among all other users of the category.

Scan planning would permit targeting the people who make the high bars. **Even a small shift in media weight to these people would project to sales increases** over schedules which hit the previous brand users only to the same extent as everyone else, or only slightly more.

Changes in purchase probability
Associated with Advertising Exposure

Other studies, such as BRI, show the same thing. Advertising has its greatest effect among the semi-converted. People who buy you already, buy you already. People who have never bought you are extremely difficult to persuade to try unless it's during the initial launch excitement. That leaves people who buy you but not all the time. They are the high profit potential target. Demographics are feeble at separating them out in media choices. You have to go direct to the brand experience data. This requires some form of scan planning... some singlesource database, or a fusion approach involving multiple databases and the assumption of random (mutata mutandis) combinability.

WHERE ADVERTISING DOLLARS WORK HARDEST

BEFORE ADVERTISING
AFTER ADVERTISING

To what extent can scan planning improve the weight against true targets, i.e. targets defined based on product/brand purchase/usage criteria?

After all, mass media are not direct mail. A hose cannot be directed with the precision of an electron beam.

Analyses by Arbitron of its own ScanAmerica data suggest that, on average, about **40% improvement can be made.** This means 40% more weight against the most responsive targets at the same media dollars!

In a corporate allocation situation, where one is limited to the shows one has already bought,

10-15% improvement is more typical. Still important when tens or hundreds of millions of advertising dollars are involved, as they are for so many companies.

In the first three cases shown here, the improvement is much greater. This is because in these cases, brand purchasers are being targeted rather than category purchasers. Where the target is more finite, the media exposure gains per dollar from scan planning are greater.

Sales targets raise media value

	Percent increase in target delivery using BuyerGraphics
Laundry detergent "P"	+52%
RTE cereal "G"	+62%
Hair coloring "H"	+76%
Dog food "L"	+30%
Cheese "K"	+19%
Dog food "C"	+19%
Average	+43%

Source: Arbitron Denver 4/87 - 12/88

How will the industry decide how to credit advertising vs. other forces, when the sales go up? Multiple regression analysis is traditional... but no one feels intuitively that it must be right. Is there a simpler way? Will everyone decide for themselves?
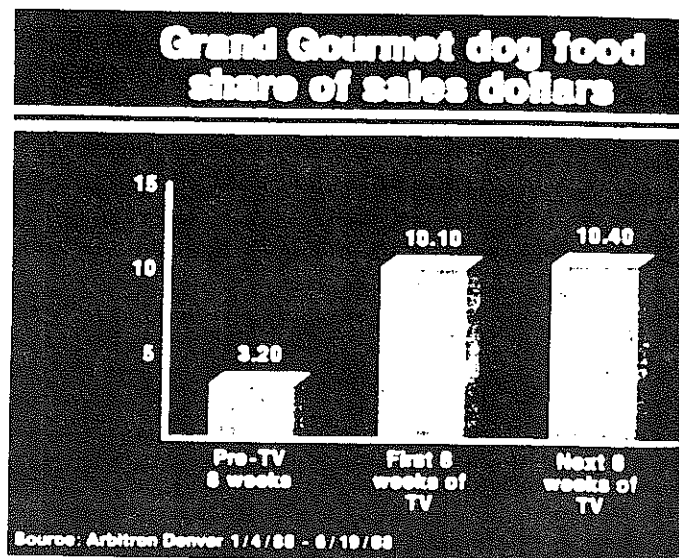
CREDITING ADVERTISING

- MULTIPLE REGRESSION?
- SIMPLER ALGORITHM?
- CHACUN SON GOUT?

It was easier in the 50's when NBC did this study. Most programs on television advertised only one brand. It was relatively easy for research to identify people who began watching a particular show... and then see how these people miraculously began tending to use the brand which sponsored that show... in droves.

Begin Viewing — Begin Buying
EVENING PARTICIPATION BRAND
% who BEGIN buying brand

60% more new customers

How to look at advertising in relation to sales nowadays? Here's one noble experiment in time series analysis by Arbitron ScanAmerica. A brand goes on TV, and Lo! and behold, its sales go up.

Grand Gourmet dog food share of sales dollars

Pre-TV 8 weeks: 3.20
First 8 weeks of TV: 10.10
Next 8 weeks of TV: 10.40

Source: Arbitron Denver 1/4/88 - 6/19/88

Twenty brands going on TV after never being on before (or being off for a year or more) were analyzed by Arbitron.

First 20 studies of brands new to television

- Kellogg's Cracklin' Oat Bran
- Dimensions Cereal
- Post Foods Smart Magic Berries
- Nabisco Frosted Wheat Squares
- Quaker Foods Oat Squares Cereal
- Dunkin Donuts Cereal
- Bran News Cereal
- Clusters Cereal
- Kellogg's Strawberry Squares Cereal
- Purina Pet Food Grrravy Dry Dog Food
- Kellogg's Nutrific Cereal
- Post Food Crispy Critters
- King Kuts Dog Food Canned
- Cheerios Cereal
- Cheerios Honey Nut Cereal
- Alpo Pet Canned Lite Dog Food
- Grand Gourmet Canned Dog Food
- Oatmeal Swirlers Cereal
- Arm & Hammer Dental / Care Toothpaste
- Cap'n Crunch Christmas Crunch

The average brand doubled sales in the first two months on TV. Leaving out 7 brands which increased from zero, the average gain was +68%. This is one way to look at advertising and sales. But it only works when a brand first goes on TV, or returns. It doesn't help when the brand is running regularly on TV. Then TV's sales effects get muddled up with everything else.

20 brands new to TV brand share of sales dollars

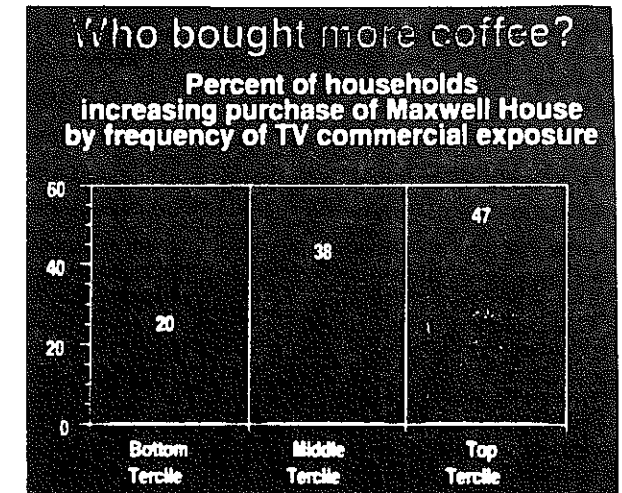|	Two months before TV	First 2 months TV	% improvement
Average	1.0275	2.0195	+96.5%
Average of 13 brands with prior sales	1.5808	2.6500	+67.6%

Source: Arbitron Denver 4/87 - 12/88

Muddling even happens during onset of TV. When Maxwell House went back on TV, it also changed its promotion mix. How to know what was responsible for those increased sales?

This fairly simple Arbitron ScanAmerica approach might suffice. By dividing the sample according to how much Maxwell House commercial frequency was received, one sees that the sales effect is far greater among the high TV frequency group. Suggesting that TV was in fact importantly implicated in the increasing sales.

This might be a scan planning screen of the future. Hit one key and see this analysis.

Who bought more coffee?
Percent of households increasing purchase of Maxwell House by frequency of TV commercial exposure

Bottom Tercile: 20
Middle Tercile: 38
Top Tercile: 47

Here's another screen one might call up. Perhaps the menu might call this the "Woods Analysis". Leslie Wood invented a new way of looking at singlesource data for Backer Spielvogel Bates in this ScanAmerica analysis for Campbell Soup. It shows that Brand A averaged an 8.6 sales share, but its share doubled to 16.7 among those exposed to 2 or more Brand A commercials in the last 2 days before their shopping trip.

Brand B and Brand C tripled their sales shares among the groups they exposed 2+ times in the last 2 days before shopping.

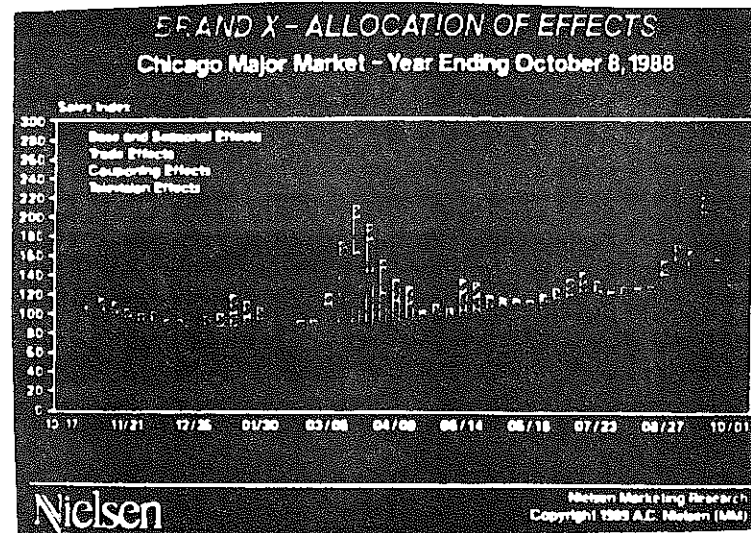Screens of the future. Glimpses of scan planning.

Recent Frequency
Percent of store visits captured by time and frequency

	All Visits	Times exposed	2 days	7 days	14 days	28 days	35 days
Brand A	8.6	1+	9.1	10.0	9.8	8.9	9.5
		2+	16.7	14.9	13.2	8.8	8.7
Brand B	2.7	1+	9.1	5.6	4.7	4.2	3.4
		2+	8.3	7.3	4.0	6.3	3.9
Brand C	6.2	1+	6.1	5.2	3.3	4.0	5.7
		2+	20.0	8.3	9.3	8.2	7.1

Why does multiple regression analysis seem to undervalue the sales effects of advertising? Only the tips of the bars in this graph ("Television Effects") represent advertising's contribution to sales.

Is it because in the Nielsen singlesource system, advertising exposure is assumed whenever the TV set is on, regardless of who may or may not be in the room? This leaves a lot of noise in the signal, and the link between advertising and sales may be harder to prove?

Peoplemeters should be used for singlesource if advertising is to get its proper credit... and the passive peoplemeter should be brought in sooner rather than later, if the advertising community knows which side of its bread has the butter of sales effect proof. The media's job is exposure, but the agency's job is sales effect among those exposed. Therefore it's in advertising's interest to be able to net down the truly exposed group for sales effect evaluation.

BRAND X – ALLOCATION OF EFFECTS
Chicago Major Market – Year Ending October 8, 1988

Nielsen

Nielsen Marketing Research
Copyright 1989 A.C. Nielsen (MM)

Will the benefit of bulk buying in the Upfront necessarily be lost as a result of better targeting?

Not necessarily: for example, the networks could change their pricing practices. Advertisers/agencies need not be charged premiums for using the medium better. Even specific pod position buying will probably happen some day.

NYU professor Henry Assael and CBS SRVP Dave Poltrack have published a paper showing that bulk buying by current simplified targets, combined with more sophisticated targeting in the corporate brand allocation of spots, still results in improved delivery against those more likely to sales-respond.

Another approach, called the Index of Corporate Utility (ICU), weights together all brands in a corporate stable by their relative budget sizes, to buy against an "average product/brand" purchaser (not demographic) target within the corporation's TV-using product line. This approach by definition increases the yield of corporate allocation so as to maximally satisfy each brand's objectives within dollar and media reality constraints.

BULK VS. POSITION BUYING

- **NETWORKS COULD CHANGE**
  - EVEN PUT PRICE ON POD POSITION

- **ASSAEL/POLTRACK**
  DEMO/BUYERGRAPHIC

- **INDEX OF CORPORATE UTILITY**

What then will the life of the media planner be like? A new plan every day? Week? Month?

FREQUENCY OF UPDATING

WHAT WILL THE ADEPT PLANNER OF 1997 REVIEW:

- **DAILY?**
- **WEEKLY**
- **MONTHLY?**
  ETC.

A quick and speculative look into the year 2000. The media floor.
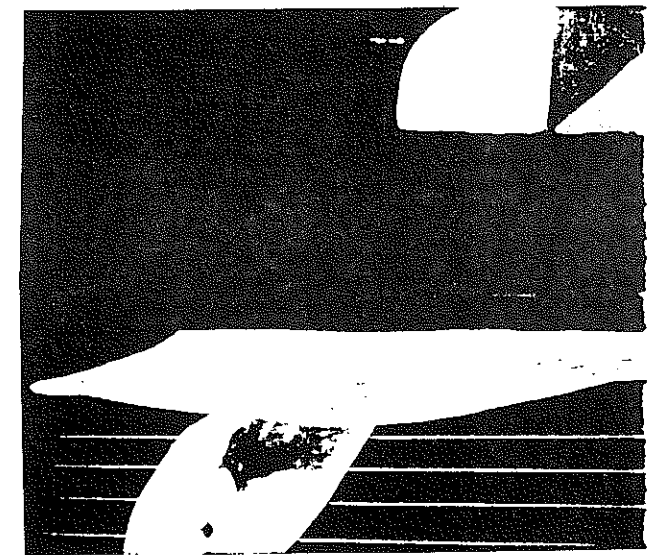

A computer on every desk, to be sure.

All computers in an agency are interconnected. We can send information and images from one desk to the next with ease.
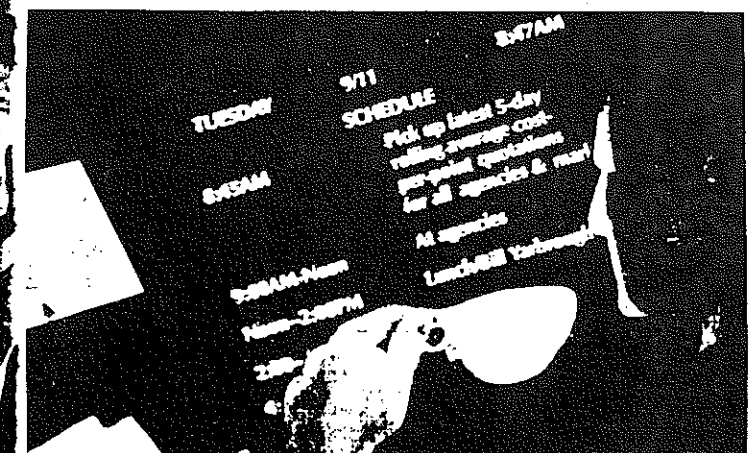

Hard copy can be printed out in color from any computer in an instant. You can run into a meeting with glitzy ammunition.

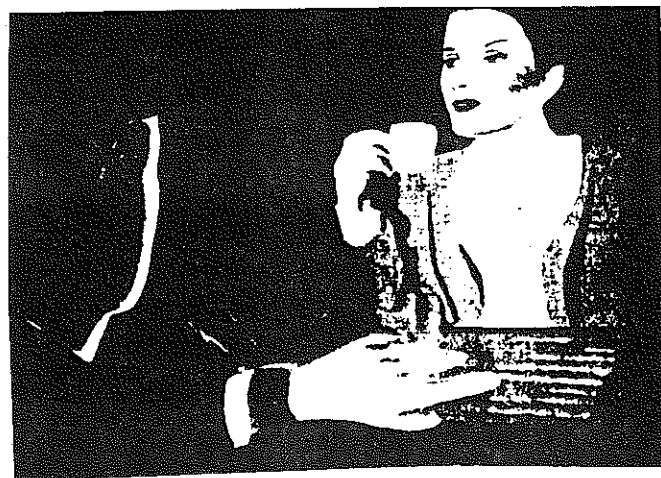In some cases, the computer has become part of our desk.

Some people may also have videotelephones built into their desktops.

In larger agencies it might look like this.

The telephone will follow us everywhere. No escape.

The phone and the computer and the television set and the watch may all be the same thing.


There may be a "Media Big Board". All media inventory may have moved into a visible computer marketplace, as opposed to its current held-back-from-public-view status. Companies such as INFO-EDGE have begun this process and others have followed. Where will it be in the year 2000?
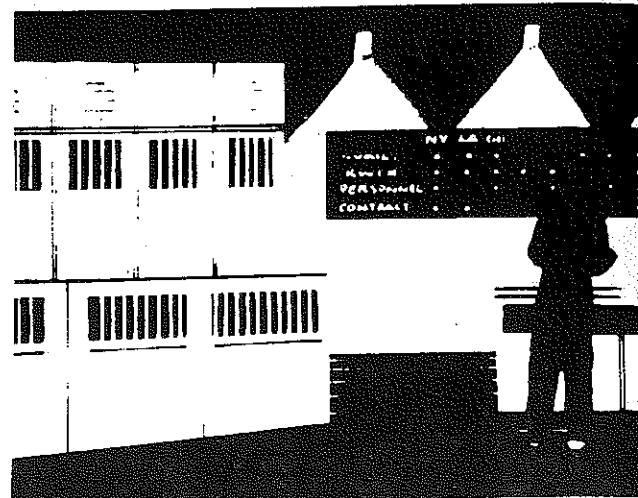

Not only media and scanner data will be available to the media planner through the computer. More familiar market research and copy research data will also be in there.
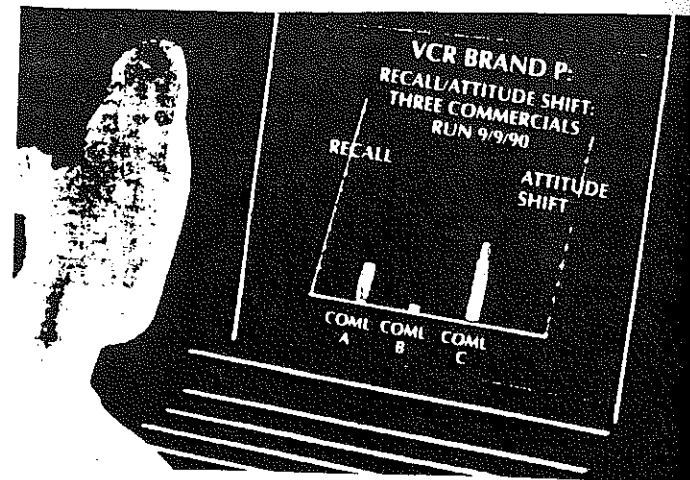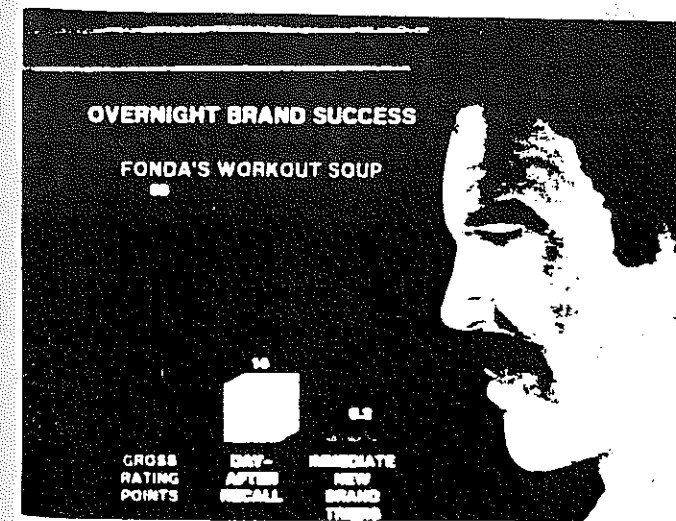

Algorithms-- estimating equations-- will be built in, able to estimate profit contributions of each element in the marketing mix... real or contemplated.
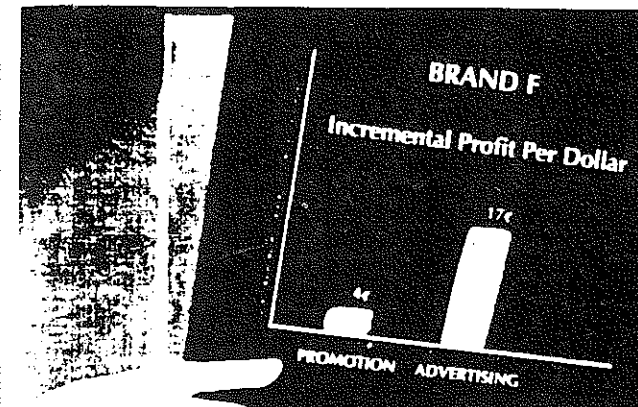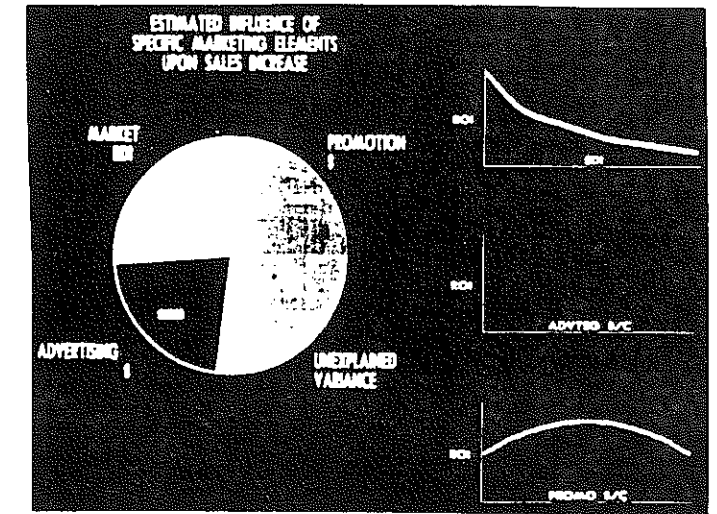

The planner will have many standard analysis formats available at the single touch of a key.
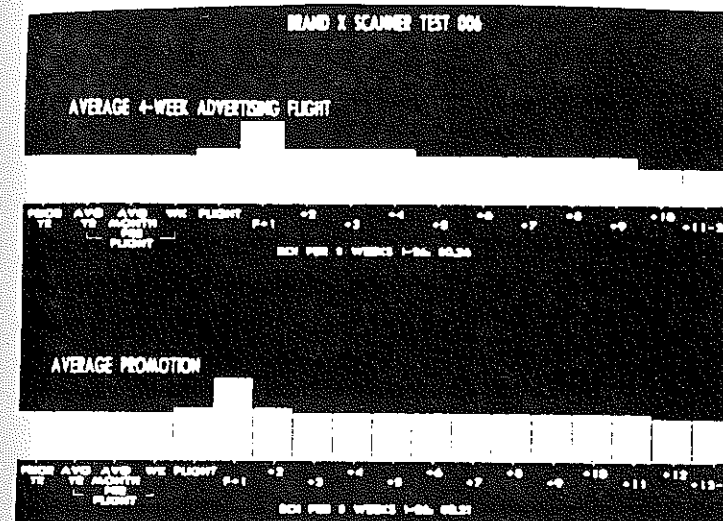

If the scanner planner is enough of a workaholic, he or she by the year 2000 will be able to look at new data every day.

The built-in algorithms will estimate the contribution to sales of advertising vs. promotion vs. other factors...

...further allocating the advertising effect among media. The dose-response curve shall also be plotted for each medium, suggesting whether a further increment in each specific medium might or might not be a good idea.
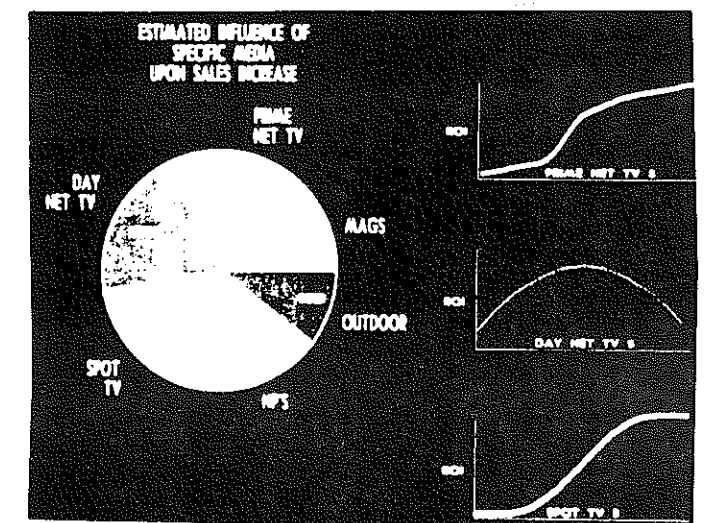

The computer systems will also suggest higher use of the marketing elements which appear to be correlationally implicated in sales success... these systems will create whole alternative plans and project their sales results in seconds.

PROJECTED RESULTS OF ALTERNATE STRATEGIES

	SALES PERCENT INCREASE	ADVERTISING INCREASE ($000)
BRAND SALES GROWTH '80 TO '81	+5	
PROJECTED ANNUAL BRAND SALES GROWTH '81		
THE ABOVE PLUS BRING ALL FASTGROWTH MARKETS UP TO 'A'-LEVEL GRP'S	+13	+295
THE ABOVE PLUS 10% OF NETWORK TO SPOT TV IN FASTGROWTH MARKETS	+16	+295

The computer will even have the temerity to recommend which of these alternative strategies is apparently the best.

60% BROADCAST PLAN YIELDS HIGHEST IMPACT
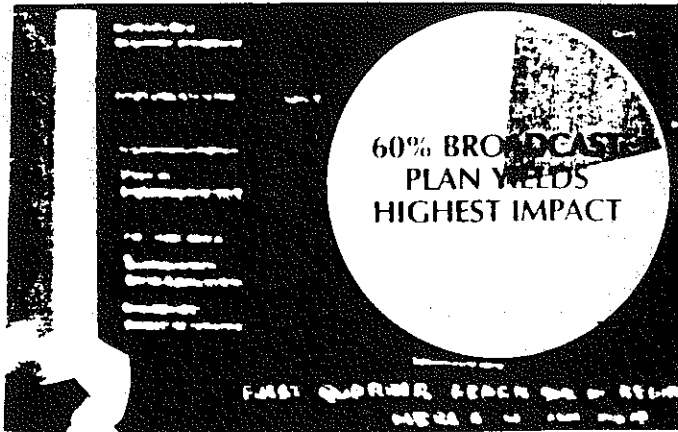
Scan planning sounds like Buck Rogers. But in essence it is simple. It is planning to satisy the sales yardstick instead of the GRP/CPM yardstick.

It comes down to GOOD NEWS VS. BAD NEWS. Doing more of what worked and less of what didn't.

Not on a Cost Per Point or other rating-based criterion. On a sales and eventually a profit criterion. That's what is revolutionary for advertising. It's a seismic shift of cosmic proportions. Not all advertising species are destined to adapt and evolve to the shift with equal facility. As in a prior instance, the proactive Cro Magnons are likely to survive and succeed better than the resistant Neanderthals.

SCAN PLANNING

GOOD NEWS
- DID WE MOVE THE NEEDLE?
- WHAT WORKED?
- HOW TO EXPLOIT?

BAD NEWS
- ARE WE IN TROUBLE?
- HOW TO RECOVER?

In this larger context of the historical forces at work, and the potential dollar benefits to be gained, we assert that scan planning is worth doing sooner rather than later, Therefore let us not be suboptimal in demanding methodological perfection over the bottom line. Let us make methodological and other executional decisions in full light of the benefit waiting for us... and not let it wait all the extra time it appears to be waiting. For example, if targeting TV buys based on product/brand purchasers allows 20% improvement in sales productivity per marketing dollar, and the data requirements necessitate a methodology which results in a 5% validity loss, let's make the right decision and choose the 20 over the 5.

BEST BALANCE OF VALIDITY/UTILITY/ RELIABILITY/ DISCRIMINATION

⬇

ACHIEVABLE SALES GAINS PER AD $