Single Source – For Increased Advertising Productivity In A Multimedia World

presented at **ARF Week of Workshops, Chicago, USA**
October 29 – November 1, 2001

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Synopsis

This paper begins with the premise that the aim for any advertiser is to achieve increased advertising productivity by achieving more powerful impact at a lower cost.

It demonstrates theoretically and by real examples that the means to achieve increased advertising productivity is **single source** information and **multimedia scheduling** – until recently only available in Australia, now available in the USA, New Zealand and soon the UK.

The paper argues that multimedia scheduling can only function, and be accepted, when all media measured have realistic figures. The inflated readership figures in 'currency' in many countries are shown to be inappropriate for multimedia scheduling.

The paper explores, based on theoretical grounds and examples, and refutes the possibility of using fusion as an alternative for **single source** data.

Finally, the paper is a call to action to embrace **single source** as the way to increased advertising productivity.

Introduction

As far back as June 1997, at the Gallup International 50th Anniversary Conference in the UK, when Roy Morgan Research of Australia was asked to talk about the importance of measurement of media today and into the future – we addressed the following topics:

- Different measures for different media, but a single source of information for all – media, advertising agencies and advertisers;
- The need for accuracy in measurement and its benefits to the advertiser;
- Questions surrounding fusion of data.

Since then there has been a call from many for single source solutions:

- Erwin Ephron & Stuart Gray, in their paper *"Why We Cannot Afford To Measure Viewers"* presented at the ARF/ESOMAR Worldwide Electronic and Broadcast Audience Research Conference in Florida in May 2000, noted *"New systems for advertising accountability need single source media and product purchase data"* (See Reference 1).
- Jim Kite, Director of Global Research for Universal McCann, in his June 2001 Admap paper *"Mixed-media campaigns: Can we fix it? Yes we can!"* points out *"if agencies bang the drum about integrated communications we do not look too clever when we apologise for not producing a total exposure metric"*. He goes on to say *"If we put to one side the different communication effects of each medium, the only way we can logically arrive at a total multi-*

media coverage and frequency that shows the all-important unique contribution of each media component is to use single source data..." Strangely he goes on to suggest without explanation that *"for political and methodological reasons this is an impossibility"* (See Reference 2).

- Gerhard Franz, in his paper *"The future of multimedia research"* published in the International Journal of Market Research Vol 42 Issue 4 Winter 2000, after interviewing 25 leading experts in France, Germany, and Switzerland, on media planning issues, came to the conclusion that *"effective media strategies must be multimedia strategies"*. He then goes on to say *"If the planner agrees with this conclusion and wants to start with the allocation of the media budget to media categories, he will very soon find out that there are no syndicated surveys for multimedia planning"*. Moreover, he goes on to say *"A single-source survey covering all relevant media from all relevant media categories together with psychographics and consumer behaviour for target group definition? No serious market researcher would even dare think about it."* (See Reference 3 p460).

Roy Morgan Research has been conducting single source multimedia research for over a decade in Australia, some five years in New Zealand, and now in the USA and soon the UK.

But let us look at the bigger picture. At the time of our Gallup International presentation, 1997, before the dot.com crash, the authors had just read Andrew Grove's book *"Only the Paranoid Survive"*.

Andrew Grove, then President and CEO of Intel, introduced the concept of the strategic inflection point. *"There are moments in any business when massive change occurs, when all the rules of business shift fast, furiously and forever."* (See Reference 4).

Such a strategic inflection point he warned could be set off by almost anything:

- mega competition;
- a change in regulations;
- even a seemingly modest change in technology.

In 1997 it was clear that in the business of research and media, we had all those and more. And since then, in the space of four years, we have experienced more change than ever before.

We believe today our industry – the information business – is now just emerging from a strategic inflection point (as are many of our clients' industries). Grove points out that, managed wrongly, a strategic inflection point can mean the end of the game. Managed right, it can turn into a powerful force.

Clearly, those of us who are still here all want to manage it right - so we have tried to address the topic of multimedia measurement within this new paradigm. Thus the politics – for there will be winners and losers.

The aim for any advertiser is to achieve **increased advertising productivity** by enabling more powerful impact at a lower cost. A survey of the media industry in Australia as far back as 1994 has identified seven points crucial to achieve world's best practice. It is still current today (See Reference 5).

- The media strategy should be an integral part of a company's marketing (not an afterthought);
- The role of media should be clearly defined vis-à-vis other activities within the marketing mix (eg direct mail, public relations, below-the-line promotions or activities, product sampling, etc);
- Media budgets should be set realistically, taking into account current and desired market share, share of voice, and market chances.

- The target audience should be defined in line with the marketing objectives, ie in terms of consumption, behavior, attitudes or a combination – rather than crude demographic proxies. For example:
  - Heavy chocolate purchasers (not female grocery buyers);
  - Intending new car buyers (not men aged 35-50);
  - People who "always try to eat healthy nutritious food" (not young women).
- All elements of the advertising (creative and media) should be designed around the target audience, ie the same people must be in mind at every stage from product positioning to creative (the images, language, and message that will move the particular target audience) to the media chosen (based on what the target audience watch, read, listen to, as well as what they believe and relate to); and the repetition or frequency required (given the target audience's interest or involvement in the product, and their memory).
- Media communication strategy should be developed for the target audience (eg aim to reach 70% of the target audience three or more times in a specified time); and the media planned accordingly. There are two issues embedded in this point:
  - direct target audience – not a demographic proxy for media planning;
  - the reach and frequency should be across all media.
- Performance of advertising should be measured for the target audience against specific goals, ie:
  - media planning and execution goals which relate to reach (did the advertising reach the target audience?); and
  - creative goals (did the advertising "cut-through", and achieve recall, persuasion, etc?) within the target audience.

The means to achieve world's best practice for the advertiser is to have a single consumer focus, from strategic planning through marketing, media planning into media buying – **single source**.

The importance of a total understanding of the consumer has increased, as new media and advertising opportunities have proliferated, and the role of TV as the biggest and most cost-effective mass medium has declined. As an aside, to demonstrate the fragmentation of TV in the USA, recent Roy Morgan celebrity polls (See Reference 6) found favorite TV personalities were so many and varied that no male TV personality scored more than 3.5% (Regis Philbin) while Oprah Winfrey was top female with 4%. For film stars the favorites enjoyed greater mass appeal – Julia Roberts 27.5%, ahead of Sandra Bullock 4.5%, and for male stars, Mel Gibson was top with 13.5% ahead of Harrison Ford at 7.5%, Sean Connery at 4.5% - even John Wayne scored 3.5%!

This paper sets out to demonstrate with concrete examples derived from Roy Morgan Single Source information in the USA and Australia, that a single source solution is a more effective means of increasing advertising productivity than strategies derived from either single-medium research surveys using traditional demographic segmentation or fusion.

1. Different Measures for Different Media

First, then, let us look at the issue of media measurement. There are, of course, today different measures for the different media:

- TV
- Radio
- Magazines
- Newspapers
- Cinema
- Sponsorship
- Catalogues/Direct Mail
- Internet

Broadly speaking, TV is measured by diary or meter; radio is measured by diary; magazines and newspapers by readership surveys either face-to-face, telephone or self-completion; cinema by surveys, etc, etc; Internet by surveys – site-specific measures of hits or visits, or some combination.

The obvious questions are:

Why do we need measurement of media?
Why are the methodologies different?
Why are the measures different?

Why do we need measurement of media? The need for measurement of media, it seems to us, is all about currency:

- currency for buying 'space';
- currency for planning;
- currency for evaluating performance; and
- currency for advertisers to know that the dollars spent in advertising have some financial logic.

Why are the methodologies and measures different? The reason for the difference has to do with:

- technology;
- the way the media are distributed;
- costs;
- end-user needs and willingness to pay; and
- history!

So we now have a sense of today and yesterday - the real question is "How do we move forward?"

At Roy Morgan Research, in order to move forward we listen to our clients and look at what has changed and what is still the same.

What's changed? So much has changed:

- Technology has changed what we need to measure and how we can measure it; we have the new media; the new and the old media are converging; and media are converging with communications;
- Users/clients have become more demanding, more sophisticated and increasingly more practical;
- Social changes have also come into play, eg increasing time poverty, reality TV (and maybe other media), increasing multi-streaming of communication and media input (TV and computer and radio and telephone all at once);
- The economics of information are changing (collecting, analysing and reporting);
- The rise and fall of the dot.com is part of our living memory and experience;
- The market itself has changed with moves to larger media buying houses, and globalisation of markets and marketing.

Many countries are in deep financial trouble; the world itself including the USA is arguably on the brink of recession.

And what is the same? At Roy Morgan Research we have come to the conclusion three things are still the same:

- First, the end consumer is still a person - watching, reading, listening and making choices.
- Second, there is still a need for some kind of currency between key negotiators - although the arena for these negotiations is changing.
- Third, the overall aim of the advertiser is still the same: **to achieve increased advertising productivity by enabling more powerful impact at lower cost.**

We believe the means to achieve this for the advertiser, to recognise the consumer in the equation and the changing shape of media buying, is **a single focus from strategic planning through marketing, media planning into media buying.**

For the record, it **is** possible. In Australia, Roy Morgan Single Source – over 55,000 interviews annually covering print, television, radio, Internet, product/service and attitudinal information – has billings of US$12 million (or £8.5 million) and is growing at US$3 million (£2.1 million) per annum. The service is now available in the USA and New Zealand, and is being rolled out globally – UK is next.

A single source of **authoritative information** for all media, agencies and advertisers.

2. Proof – increased advertising productivity

Let us demonstrate by example the increased advertising productivity. There are of course two issues to demonstrate:

- targetting the consumer directly, not via demographic proxies; and
- planning across media.

Direct Targetting Vs Demographic Proxy

An article in the American press last year (Advertising Age) highlighted one of the problems that has been dogging advertisers for decades; advertising that is wasted on those who are not in the market (See Reference 7).

The article states that by matching names in Nielsen's TV **diaries** with names of new car buyers the author discovered that the viewing habits of a number of new car buying segments differ significantly from average household viewing habits. Deborah Anderson, director of Nielsen's New Media Services, is credited with the comments that car marketers are reaching too many non-buyers with their national broadcast TV buys and the auto marketers are basing those TV buys on viewer demographics.

The thrust of the article is that if car makers were able to buy TV airtime based on car buying behaviour rather than simple demographics then a different program set would be chosen. The opportunity to save money or increase impact could be as much as 70% compared to a buy based on household viewing.

Clients of Roy Morgan Research have known for many years that while it may be useful to know how many 16-24 year olds are watching a TV program, it is much more useful to know how many buyers of their products are watching their TV program.

The following example demonstrates clearly the power of direct targetting. An A.I.D. analysis[1] performed on Roy Morgan Single Source data in Australia using age, sex, income, education and occupation revealed that the best demographic proxy for new Ford buyers was "people aged 45-54 whose income is A$60,000+ and whose occupation is a manager". This demographic group has a propensity nearly ten times greater than the average person for intention to buy a new Ford within the next 12 months.

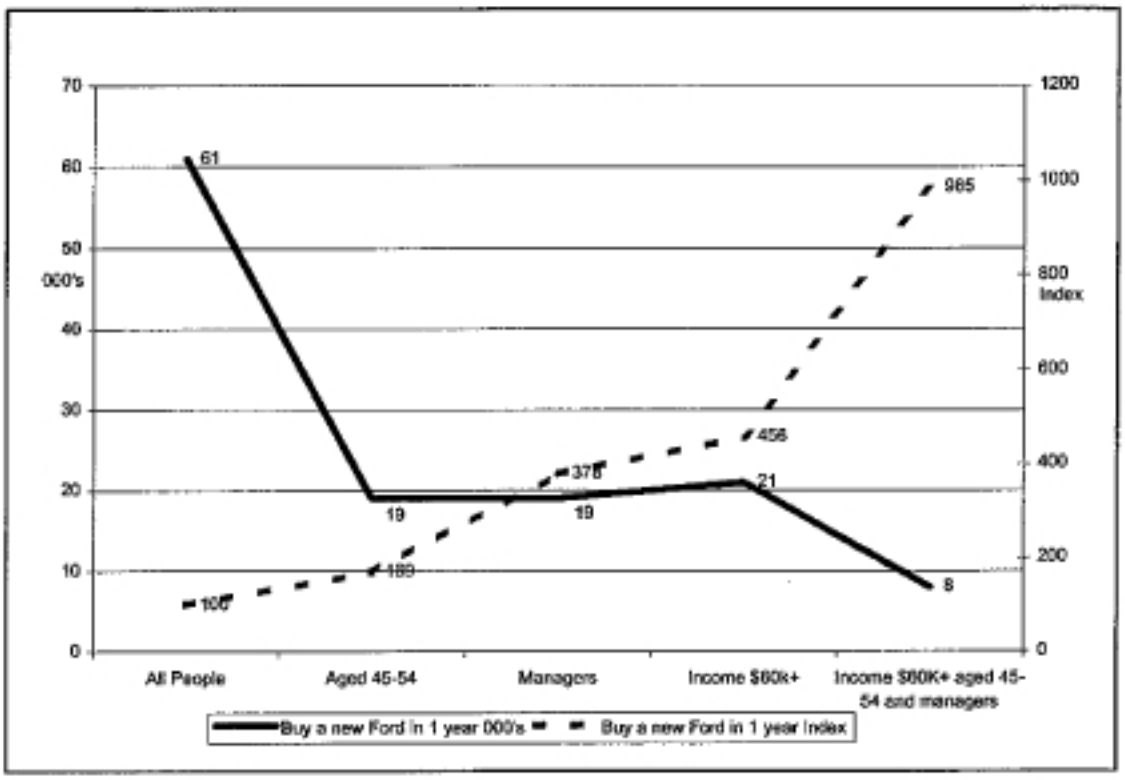
"All People" is not a very good proxy for new Ford buyers. Targeting people aged 45-54 increases the proportion of people within the description who are likely to be new Ford buyers. Similarly "managers" and "earns A$60,000+" both contain greater proportions of new Ford buyers. Putting all three together to make a composite target increases the proportion of new Ford buyers dramatically. The problem with this approach is that while the proportion of new Ford buyers within the target

[1] All figures and results quoted in this example are based on Australian data covering the 12 months April 1999 to March 2000 and are based on a sample of 55,000 people aged 14+.

demographic increases **as we add additional demographic layers, the proportion of all new Ford buyers that are represented decreases.**

"Managers aged 45-54 earning A$60,000+" is arguably a description of the people most likely to buy a new Ford but it represents only 13% of all intending new Ford buyers. The following graph illustrates the point:

Figure 1: Thousands of Ford intenders Vs proportion of Ford intenders (as an index) among cumulative demographic layers.



Source: Roy Morgan Single Source Australia 2000

For advertisers using demographic proxy targets to select their TV programs it should be clear from the above that targeting 'new Ford intenders' is likely to generate a different list of "hot" programs compared with targeting "managers with income A$60K+ aged 45-54".

Table 1 below shows that there are in fact differences even among the top five programs. The programs shown in bold in the new Ford buyers column do not appear in the "demographic proxy" column.

Reach and Index identify where the largest numbers (Reach) and the greatest proportion (Index) of a target audience can be found.

Table 1. Top 5 TV programs based on Reach and Index for intending new Ford buyers compared with the demographic proxy.

Top 5 Reach for intending new Ford buyers	Top 5 Reach for managers with income $60K+ aged 45-54 yrs
Seachange Sun (ch 2)	Seachange Sun (ch 2)
Sixty Minutes Sun (ch 9)	Walking with Dinosaurs Sun (ch 2)
National Nine News M-F (ch 9)	ABC News M-F (ch 2)
National Nine News Sa, Su (ch 9)	ABC News Sa, Su (ch 2)
Walking with Dinosaurs Sun (ch 2)	The Vicar of Dibley Mon (ch 2)

Top 5 Index for intending new Ford buyers	Top 5 Index for managers with income $60K+ aged 45-54 yrs
The Footy Show Sun (ch 9)	Business Sunday Sun (ch 9)
Talking Footy Mon (ch 7)	ABC News M-F (ch 2)
Business Sunday Sun (ch 9)	Small Business Show Sun (ch 9)
Sunday Sun (ch 9)	Sunday Sun (ch 9)
Football-Around The Grounds Sat (ch 7)	Foreign Correspondent Tue (ch 2)

Source: Roy Morgan Single Source Australia 2000

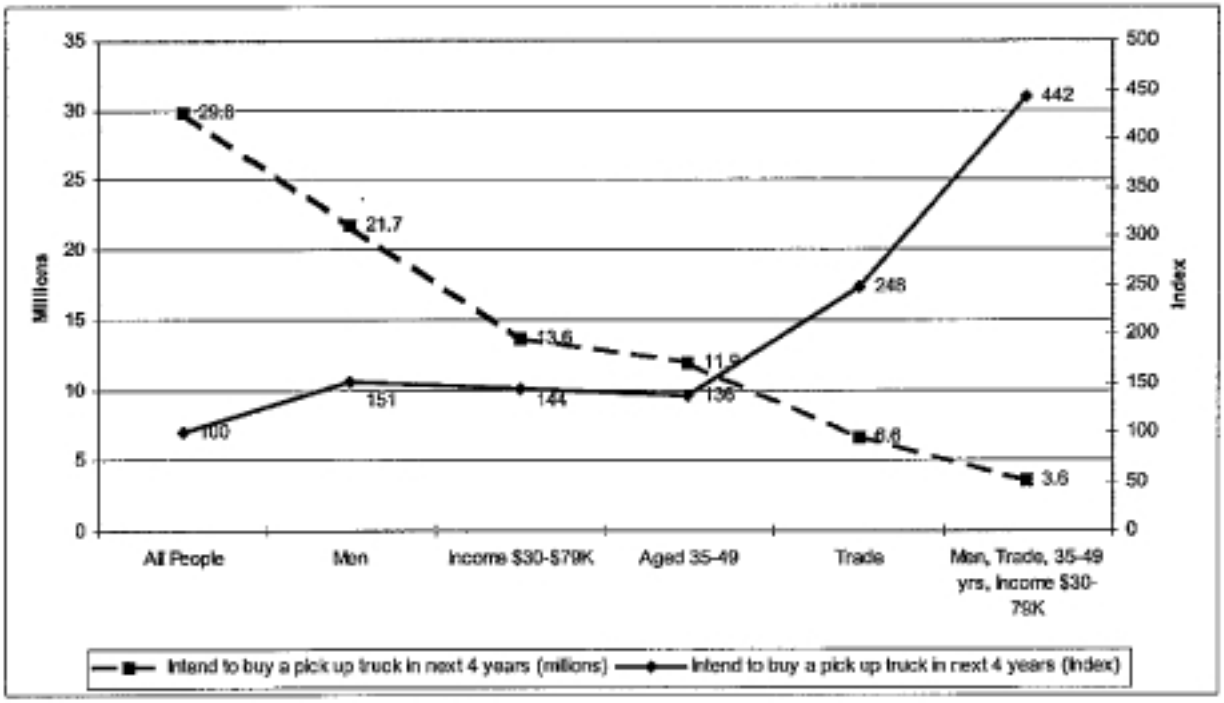
From the preceding Table 1 the interesting thing is not that some programs are listed in both columns, it is the ones that are missing from either column. The program choices based on demographics may well miss the opportunities offered by the National Nine News for achieving high reach against intending new Ford buyers because there are 17 other programs that rate higher against "managers with income A$60K+ aged 45-54". The problem here is that advertisers may pay too much and miss the real bargains.

For high Index programs the situation is much worse, where the number one program against intending new Ford buyers is The Footy Show. If we go looking for this program on a ranking of high Index programs for "managers with income A$60K+ aged 45-54" there are 120 programs ahead of it. If demographics are all you have to work with then The Footy Show will never make it into a TV schedule because it gets lost in the demographic morass.

A similar picture emerged in the USA using A.I.D. analysis of Roy Morgan Single Source data in the USA: the best demographic proxy for intending pick-up truck buyers was "men aged 35-49, with incomes US$30,000 - $79,000 in trades occupation".

As with the Australian example, this demographic group "men aged 35-49, income US$30,000 – $79,000 in trades occupation" is more than four times as likely as the average American to intend buying a pick-up truck; but it only represents about 12% of intending pick-up truck drivers.

Figure 2: Thousands of 'pick-up truck intenders' vs proportion of 'pick-up truck intenders' (as an index) among cumulative demographic layers.



Source: Roy Morgan Single Source USA 2000.

Table 2 below shows in bold those top 10 programs for 'pick-up truck intenders' based on either Reach or Index where they are different from those selected by the "demographic proxy".

Table 2. Top 10 TV programs based on Reach and Index for intending pick-up truck buyers compared with the demographic proxy.

Top 10 Reach for "Buy pick-up truck in next 4 years"	Top 10 Reach for "Men, trade, 35-49 yrs $30-79K"
CBS: Survivor (Wed)	CBS: Survivor (Wed)
NBC: Friends (Thu)	NBC: Friends (Thu)
ABC: Who Wants To Be A Millionaire (Wed)	FOX: X-Files (Sun)
NBC: ER (Thu)	FOX: Malcolm in the Middle (Sun)
CBS: Everybody Loves Raymond (Mon)	NBC: ER (Thu)
FOX: Malcolm in the Middle (Sun)	CBS: Everybody Loves Raymond (Mon)
CBS: Nash Bridges (Fri)	CBS: Nash Bridges (Fri)
FOX: That '70s Show (Tue)	ABC: Drew Carey Show (Wed)
CBS: CSI (Fri)	ABC: Who Wants To Be A Millionaire (Wed)
NBC: Will & Grace (Thu)	ABC: Spin City (Wed)

Top 10 Index for "Buy pick-up truck in next 4 years"	Top 10 Reach for men, trade, 35-49 yrs $30-79K"
UPN: Star Trek: Voyager (Wed)	CBS: Late Show with David Letterman (M-F)
FOX: Titus (Tue)	UPN: Star Trek: Voyager (Wed)
CBS: Nash Bridges (Fri)	CBS: Nash Bridges (Fri)
CBS: Walker, Texas Ranger (Sat)	FOX: Judge Judy (M-F)
FOX: That '70s Show (Tue)	FOX: X-Files (Sun)
FOX: America's Most Wanted (Sat)	NBC: Deadline (Mon)
NBC: News NBC – Evening (M-F)	ABC: Drew Carey Show (Wed)
FOX: Cops (Sat)	ABC: Spin City (Wed)
NBC: Frasier (Tue)	CBS: Walker, Texas Ranger (Sat)
CBS: Guiding Light (M-F)	CBS: JAG (Tue)

Source: Roy Morgan Single Source USA 2000.

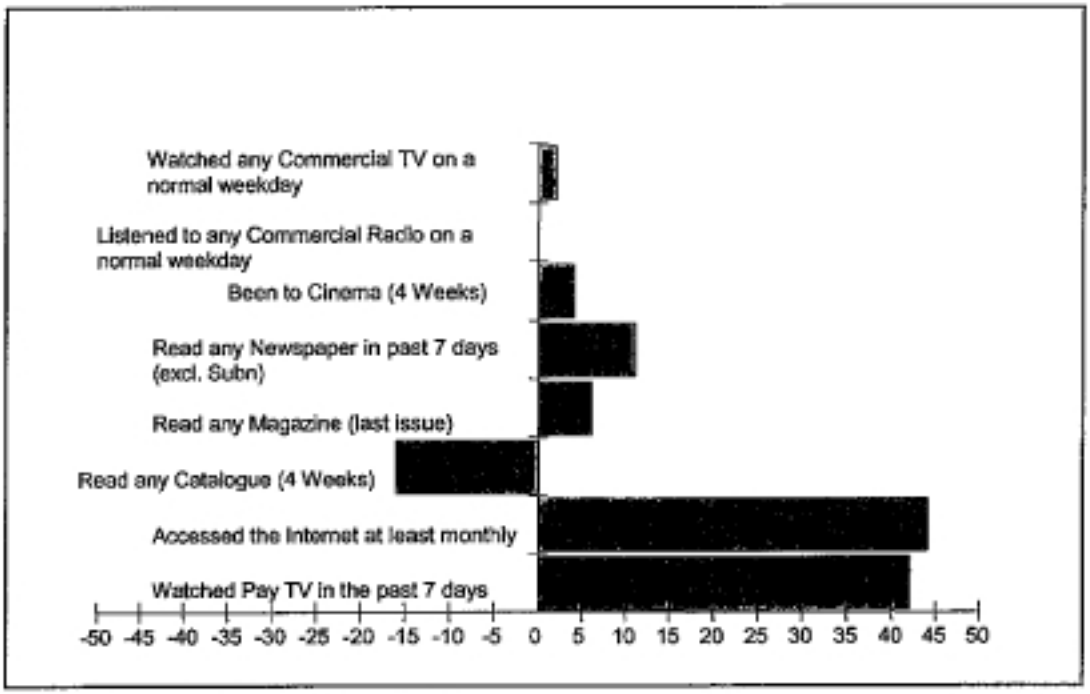
As with the Ford example in Australia, some programs, such as 'That '70s Show', are not identified by the demographic proxy as being contenders for the media plan.

Users of Roy Morgan Single Source information can drill even deeper by understanding the viewer's involvement with TV programs. They do this to fine tune program selection by looking at the "best of the best". For example the starting point may be to examine high rating programs (the best) and then from a ranked list choose the "best of the best". The "best of the best" may be based on one of two key measures, "I really love this program" and/or "I especially choose to watch this program".

Assume that the media planner starts with a shopping list of top 20 programs ranked on Reach. A demographic list like "managers with income A$60K+ aged 45-54" will provide a very different ending point compared to a behavioural list like "intend to buy a new Ford in the next twelve months". Picking the five highest reaching programs for each of the involvement measures results in lists with **NO** overlap between the demographic and behavioural selections.

Of course the bigger question is "should TV be used at all and if so, how important is it?". Single source measurement provides the opportunity to create the "big picture" overview seen in Figure 3 below.

Figure 3: Index of media performance among intending Ford buyers in Australia

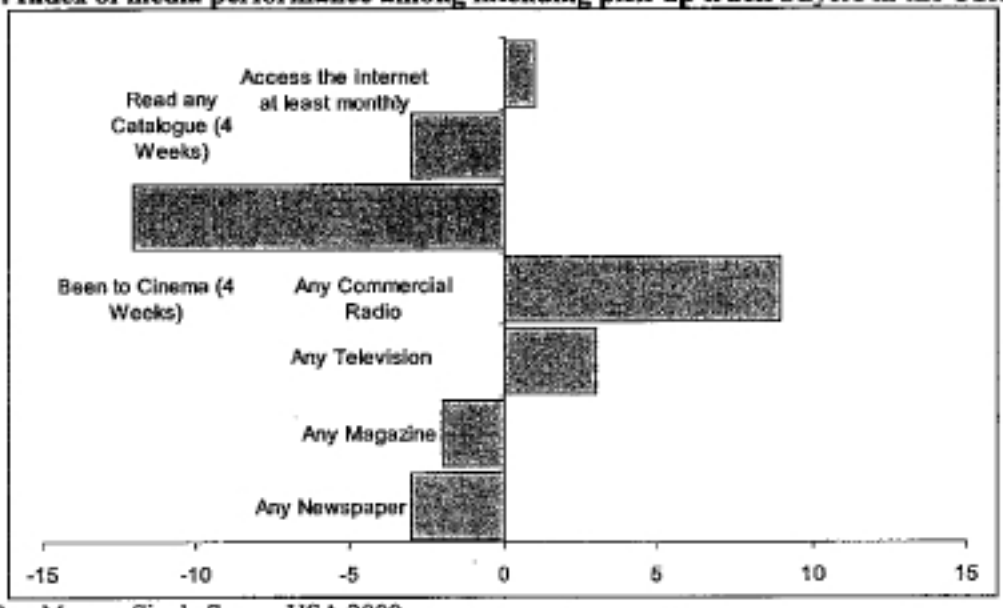


Source: Roy Morgan Single Source Australia 2000

From the above it is clear that in the Australian market, Pay TV and the Internet are both prime candidates for consideration in any multi media plans, as are newspapers and magazines.

For the USA Figure 4 shows that in fact radio is a real contender for reaching 'pick-up truck intenders'.

Figure 4. Index of media performance among intending pick-up truck buyers in the USA.



Source: Roy Morgan Single Source USA 2000.

This leads us to the next point – planning across media.

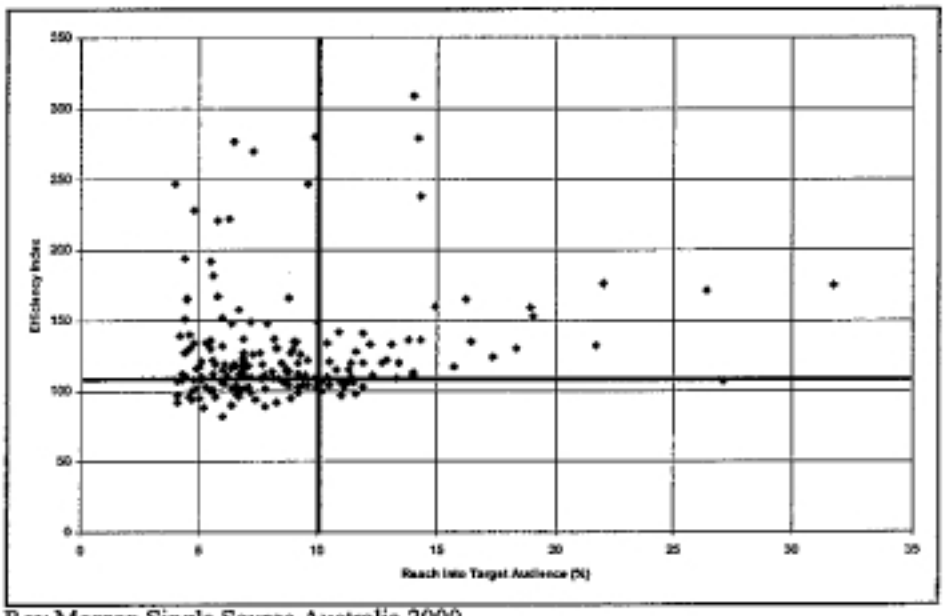
Multimedia Planning

"The aim is to achieve greater advertising productivity by enabling more powerful impact at a lower cost."

In the following example, Figure 5, we target Australian women intending to buy a small car in the next four years defined in the Roy Morgan Single Source data, and consider from the 400+ media products – print titles, programs, Internet, cinema, etc - which we measure. On the chart, each dot is a media product.

But only those dots in the top right hand quadrant are used by over 10% of these prospects, more than 20% ahead of the population as a whole.

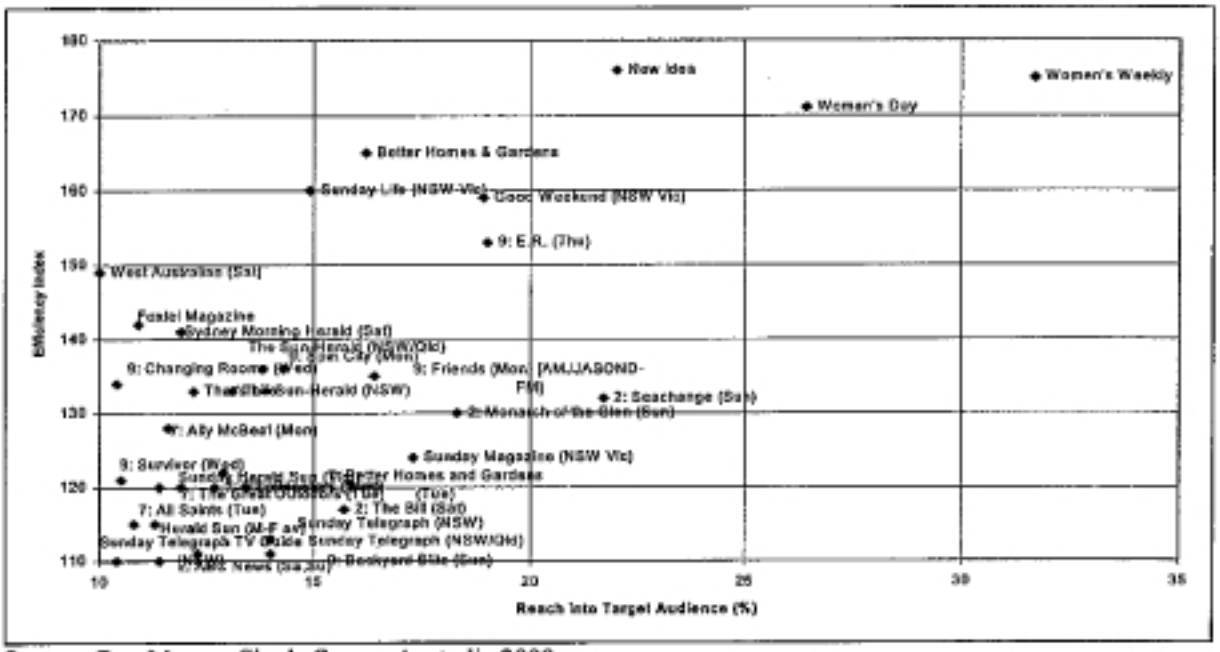
Figure 5. Multimedia Reach and Index of a range of media products for women intending to buy a new small car in the next four years.



Source: Roy Morgan Single Source Australia 2000

If we are an advertiser, our money will be best spent on whatever is in that top right hand quadrant – the 'Hot Quadrant', (See Figure 6). Even a huge advertiser like McDonald's can save (See Reference 8).

Figure 6. The 'Hot Quadrant' media products which reach 10% or more of women intending to buy a small car in the next four years, with an index of 110 or more.

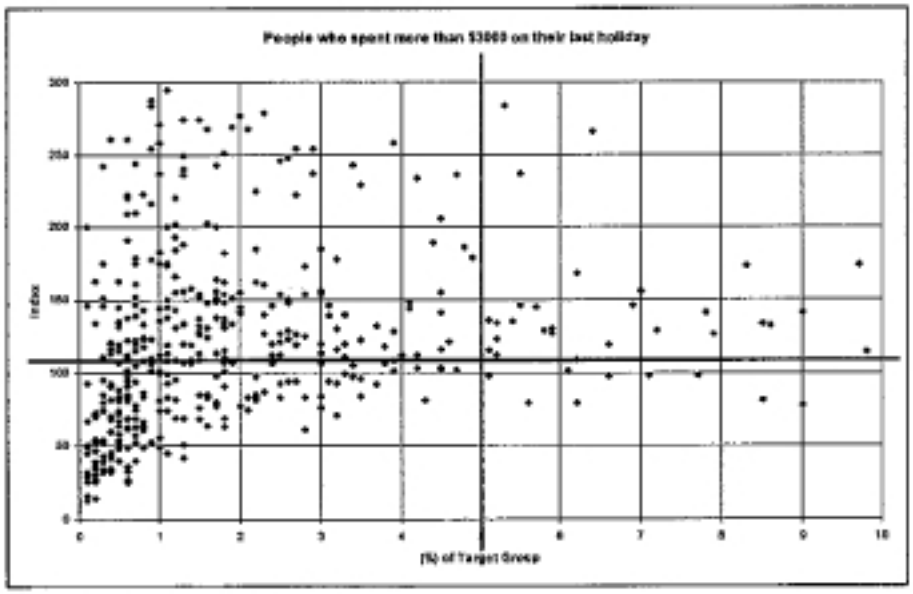


Source: Roy Morgan Single Source Australia 2000

In this 'Hot Quadrant' - we see a distinctive pattern. Lots of newspapers, "newsmags", and ABC (Australia's non-advertising channel) television. There is also some (self-development) commercial TV. It follows that to fit into the lives of these prospects, it is best to use the media which is in the 'Hot Quadrant'.

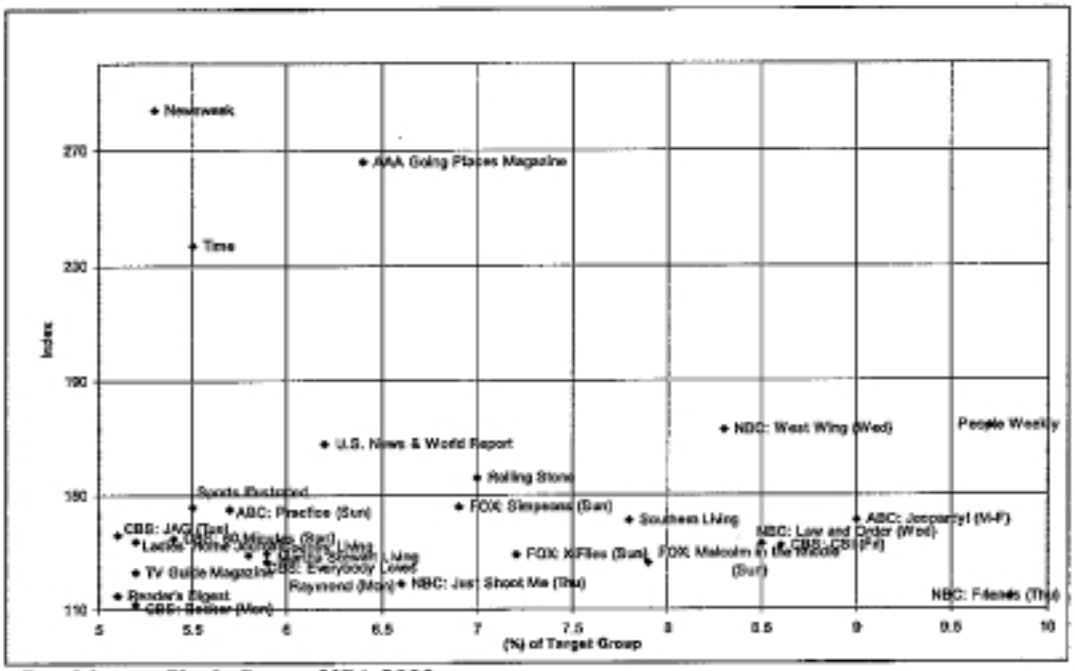
In the USA, where it is more difficult to achieve reach than in Australia, the same logic applies. The following Figures 7 and 8 show the spread (Reach and Indices) of all media for valuable holiday makers (those who spent more than US$3,000 on their last holiday); and the best media to use.

Figure 7. Multimedia Reach and Index of a range of media products for valuable holiday makers.



Source: Roy Morgan Single Source USA 2000.

Figure 8. The 'Hot Quadrant' media products which reach 5% or more valuable holiday makers with an index of 110 or more.



Source: Roy Morgan Single Source USA 2000.

But we are pursuing the goal of more productive advertising, so how does this help? How do we define "most productive"? Hot Quadrant plus accumulated reach and frequency, eg say 75% reach with a frequency of 3+ using only the Hot Quadrant media.

Each campaign or client may have a different communication target. If one is using a single-medium survey or single-medium scheduling software (to calculate reach and frequency) this is as far as it goes. Typically, reach and frequency analysis was available only one medium at a time.

However in 1997 Roy Morgan Research launched ASTEROID MediaPLANNER which enabled us to measure the performance of the 'Hot Quadrant' media across print and TV. ie multimedia scheduling.

Before going further, it is important to note two things:

- the TV viewing levels from Roy Morgan Single Source are extremely close to the TV ratings as measured by Nielsen (See Reference 9); and
- the relativities between print and TV are sensible.

These issues are addressed in more detail in the next section.

The following Table 3 shows that an ASTEROID multimedia schedule has the same output and diagnostics as are used in traditional single media scheduling tools.

Table 3. ASTEROID multimedia schedule output

Target people who have drunk Diet Coke in last 7 days					
(Unweighted)	995				
(Popn. '000)	35158				
Reader's Digest		-		10	
Better Homes and Gardens		-		10	
Good Housekeeping		-		10	
Family Circle		-		8	
Newsweek		-		8	
Woman's Day		-		6	
National Geographic		-		6	
People Weekly		-		6	
Television (total)		192		27	
Reach ('000)		25447		32546	
(%) :		72.4%		92.6%	
Avge. Freq. (OTS)		23.83		11.47	
Impacts ('000)		606456		373285	
Total cost ($)		27073252		16438783	
Cost / '000 impacts		44.64		44.04	
Cost / '000 reached		1063.89		505.09	
T.A.R.Ps.		1725.		1062.	
Cost / T.A.R.P.		15695.20		15483.00	
O.T.S		Dist.	Cume.	Dist.	Cume.
0		27.6%		7.4%	
1		5.8%	72.4%	5.9%	92.6%
2		3.8%	66.6%	5.7%	86.7%
3		2.9%	62.8%	5.7%	80.9%
4+			59.9%		75.2%

Source: Roy Morgan Single Source USA 2000

The following Table 4 shows the cost savings achieved using the power of multimedia scheduling to create combined schedules.

Table 4. Costs, reach, and reach with 3+ frequency for several target audiences

	Target Audience people with life insurance		
	TV only	**TV + Print**	**+/- Variance**
Total cost ($)	$2 mil	$1.5 mil	-25%
Cost / '000 reached	$3839	$2079	-46%
% total reached	71%	95%	+34%
3+ reach	60%	86%	+43%
	Target Audience heavy drinkers of imported beer		
	TV only	**TV + Print**	**+/- Variance**
Total cost ($)	$31 mil	$23 mil	-26%
Cost / '000 reached	$2989	$1579	-46%
% total reached	68%	95%	+40%
3+ reach	59%	87%	+47%
	Target Audience people who intend to buy a DVD player		
	TV only	**TV + Print**	**+/- Variance**
Total cost ($)	$28 mil	$20.5 mil	-27%
Cost / '000 reached	$2584	$1384	-46%
% total reached	71%	96%	+35%
3+ reach	61%	89%	+46%

Target Audience women intending to purchase a small car			
	TV only	**TV + Print**	**+/- Variance**
Total cost ($)	$27 mil	$19 mil	-30%
Cost / '000 reached	$4269	$2143	-50%
% total reached	68%	96%	+41%
3+ reach	58%	88%	+52%

Source: Roy Morgan Single Source USA 2000

These examples show that the TV and Print combination is more productive for clients; whether you spend less for more performance, or the same for less, or any other variation, the cross media reach and frequency analysis shows substantial benefits.

3. The need for accurate data in multimedia solutions – within media and across media

What about accuracy in measurement - particularly benefits to the advertiser?

- We'd all agree accuracy is important;
- We'd also all agree that **it is more important for a sinking ship to identify where the leak is - and fix it - than to measure with infinite precision the rate at which it is sinking.**

So, of course, accuracy is important, but:

- at what price?
- to what extent? and
- where are the priorities?

If we agree the aim is increased **advertising productivity**, then the issue of accuracy in measurement must be evaluated against that.

You'll recall we pointed out that multimedia scheduling was premised on TV viewing levels from the Roy Morgan Single Source being extremely close to the industry's TV Ratings, and relativities between print and TV being sensible.

In Australia, where there are good measures of TV (meters and diary), radio (diary) and print, the value of increasing accuracy in existing measures must be weighed up against the **cost** of increasing the accuracy.

As Geoffrey Smith points out in his paper Single Source – The Problem Solver, *"Exponential increases in cost for incremental increases in reliability or utility have no precedent for success or acceptance anywhere in the world"* (See Reference 9 p10).

After systematically reviewing the available media measurement services in Australia, the view we have taken is that:

- increasing accuracy in measuring **total reach** does not add value;
- increasing accuracy in measuring **within target audiences** adds enormous value; and
- increasing accuracy within targets **across all media** is all powerful.

When we looked across the world we realised this was not true outside Australia (and up until now, Canada).

In our paper *"Pitfalls of International Market Research"* we compare reader-per-copy estimates across countries, and demonstrate that in the USA and New Zealand, readership estimates are inflated, thus they cannot realistically be used in any multimedia scheduling. (See Reference 10).

To demonstrate by example, if we look at the readers-per-copy of four well-known magazines in three markets – using the local readership currency – we would believe that magazines are "passed-on" to a lot more people in the USA and NZ than in Australia. For instance, that an average copy of People is read by 9.8 people aged 18+ in the USA, and the same magazine (called Who in Australia and New Zealand) is read by 8.5 people aged 20+ in New Zealand, but only 4.3 people aged 18+ in Australia.

Similarly, that an average copy of Reader's Digest is read by 3.9 people aged 20+ in NZ, 3.4 people aged 18+ in the USA and only 2.4 people aged 18+ in Australia.

Similar differences are shown for Cosmopolitan, TIME and Newsweek (see Table 5 below).

Table 5: Readership currency reader-per-copy estimates across countries

Magazine	Australia Roy Morgan (18+)	New Zealand Nielsen (20+)	US MRI (18+)
People / Who*	4.3	8.5	9.8
Reader's Digest	2.4	3.9	3.4
Cosmopolitan	3.0	n/a	6.1
TIME	3.4	5.7	5.1
Newsweek/Bulletin+	4.0	Not published	6.1

* In Australia and New Zealand, People is Who

+ In Australia, Newsweek is included in The Bulletin

Source: Australia: Roy Morgan Research Jan-Dec 2000, Circulation: Jul-Dec 2000
New Zealand: Nielsen Jul 99-Jun 00, Circulation: Jul-Dec 2000
United States: MRI Fall 2000 Circulation: Jul-Dec 2000

However, the next table shows that when Roy Morgan Research applies the same measurement methodology across the different countries, the differences all but disappear.

People (or Who) has readers-per-copy, aged 18 and over of 4.3 in Australia, 4.7 in New Zealand, and 4.4 in the USA; and Reader's Digest has readers-per-copy of 2.4, 2.5 and 2.9 respectively. TIME has readers-per-copy aged 18 and over of 3.4 in Australia, 3.7 in New Zealand and 4.3 in the USA. A similar pattern of result is shown for Newsweek with slightly higher readers-per-copy in the USA (5.1) than Australia (4.0).

In other words, when we apply consistent proven methodology to different markets on the same magazines, we discover that they attract very similar readers-per-copy despite the marketplace differences. Common sense would say this is correct.

Table 6: Roy Morgan Research readers-per-copy (18+) estimates across countries

Magazine	Australia (18+)	New Zealand (18+)	US (18+)
People / Who*	4.3	4.7	4.4
Reader's Digest	2.4	2.5	2.9
Cosmopolitan	3.0	3.5	3.4
TIME	3.4	3.7	4.3
Newsweek/Bulletin+	4.0	Not published	5.1

* In Australia and New Zealand, People is Who + In Australia, Newsweek is included in The Bulletin

Source: Australia: Roy Morgan Research Jan-Dec 2000, Circulation: Jul-Dec 2000
New Zealand: Roy Morgan Research Jan-Dec 2000, Circulation: Jul-Dec 2000
United States: Roy Morgan Research Jul-Nov 2000, Circulation: Jul-Dec 2000

Readers-per-copy estimates calculated as: $\frac{\text{Average issue readership}}{\text{Published audited circulation figures}}$

The reasons for the differences between Roy Morgan Research estimates and those of Nielsen and MRI are the subject of other papers, but are primarily due to replicated reading using the recency method and questionnaire confusion.

The critical point for anyone wanting to use multimedia scheduling is that a print readership measure must be used which is realistic and has sensible relativities with TV. Not just the currency that the print media are comfortable with.

We are reminded here of the point Geoffrey Smith made in his paper *"Single Source - The Problem Solver"*, when he wrote of the $24 billion question.

> *"The New York Times article quotes an estimate of $24 billion being spent on advertising annually in markets covered by sweeps. The question for advertisers must be whether that money is being well spent or could it be better spent in other media or other markets or both? The problem is that the survey is commissioned by those receiving the $24 billion rather than by those spending it."* (See Reference 9 p.11)

He was, of course, talking about TV and in particular the "Sweeps" TV rating surveys which are perceived as antiquated and biased. However the message is relevant here as well.

For years, Roy Morgan Research has argued that it is important to have sensible readership levels - sensible relativities, not only between various print titles, but also between print and TV.

Until recently, outside Australia, print media did not compete actively with TV, so our call to have sensible relativities has fallen on deaf ears. Today, it is extremely important in the USA and everywhere else.

Only when all the media measured have realistic figures can a multimedia scheduling system function.

This is part of recognising that we are at a strategic inflection point. To continue to seek to operate in an environment where readership figures are artificially inflated will only serve to push print media out of the game.

In all countries we have reviewed (except Australia) the readership figures are not highly regarded or believed. The latest Canadian readership measurement fiasco is just another example of how to lose credibility for a medium. Until recently Canada's readership survey was conducted using the "gold" standard "through-the-book" specific issue methodology. However, in the latest survey the methodology was changed from the "gold" standard "through-the-book" to "recent reading" with the obvious resulting inflated figures.

Keith Damsell, in his article "*Magazine numbers unravelled*" published on globeandmail.com points out that: "*On the surface, new readership data for Canada's magazine sector shows tremendous gains and looks like cause for celebration, but a closer look at the methodology reveals it's nearly impossible to draw conclusions from the new system's numbers.*" Damsell also alludes to the pressure within the Print Measurement Bureau: "*...there was some pressure within the PMB – an industry group whose members include publishers, advertising agencies and their clients – to raise the profile of the magazine sector as an advertising vehicle through big readership numbers. Television and newspapers use broadly based audience and readership survey methods to woo advertising dollars – so why not competing magazines, they thought.*" (See Reference 11)

The new survey, based on "recent reading", has shown an average increase of 134%, or 149% for English language titles.

Table 7. Canadian magazine readership comparing Print Magazine Bureau's new and old methodologies

Magazines	2000 Through-the-book (old)	2001 Recent Reading (new)	Change
Healthwatch	842,000	4,949,000	+488%
Canadian Gardening	706,000 (readers-per-copy 5.0)	2,842,000 (readers-per-copy 20.0)	+303
National Post Business	436,000	1,620,000	+272
R.O.B. magazine	397,000	1,326,000	+234
Canadian House and Home	800,000 (readers-per-copy 4.5)	2,447,000 (readers-per-copy 13.9)	+206
Toronto Life	341,000 (readers-per-copy 3.7)	1,034,000 (readers-per-copy 11.2)	+203
Chatelaine	1,766,000	4,792,000	+171
Reader's Digest	3,168,000	7,929,000	+150
TV Guide	1,865,000	4,284,000	+130
Canadian Living	1,986,000	4,498,000	+126
Homemaker's	1,206,000	2,267,000	+88
Maclean's	1,669,000 (readers-per-copy 3.3)	3,090,000 (readers-per-copy 6.1)	+85
Time	1,706,000 (readers-per-copy 5.4)	3,074,000 (readers-per-copy 9.7)	+80
Elm Street	710,000	1,010,000	+42
Saturday Night	561,000	794,000	+42

Source: Print Measurement Bureau and Audit Bureau of Circulations

While those in the print media in Canada may seek to have the new figures accepted (by claiming the new figures to be correct, the old ones too low), it is important to look at reality.

Table 7 also shows as an example the calculated readers-per-copy for five of the titles.

It is clear that 20 readers-per-copy for Canadian Gardening is not real; nor is 9.7 readers-per-copy for Time.

The Roy Morgan Readership Survey uses as the "gold" standard full "through-the-book" and specific issue for monthly publications to reduce confusion, replication, and telescoping.

In Australia, where the readership survey is independent, and the figures believable and consistent, the readership survey is highly regarded.

In a recent Australian trade press article (B&T) "*Relationships critical in the business of the media*" media buyers were asked to rate the reliability of audience data available for each medium. Media buyers were most confident in Roy Morgan Research:

> *"In general... media buyers were most confident in the Roy Morgan readership data for magazines (the Audit Bureau of Circulations circulation data was not included in the survey), in which 78% of media buyers said they were either 'very confident' or 'confident', followed by the Roy Morgan readership data for newspapers (75% were either 'very confident' or 'confident').*"

This is substantially ahead of, for example, AC Nielsen's Pay TV data (58% being very confident or confident) and the new free to air TV measurement, OzTAM's TV data (49% being very confident or confident) (See Reference 12).

Is it coincidence that Australia is also the first country to have true multimedia scheduling operating in advertising agencies for advertisers?

4. Fusion – A proxy for single source or confusion?

With all the single-medium data sets available, and clients' own data, what about fusion as a proxy for single source?

Fusion involves combining data from two (or more) surveys by matching ("marrying") a respondent from one survey with a respondent from the other to create a unified data set as though all the data had been gathered from the same set of respondents. The intention is to allow cross-analysis of variables not measured among the same sample.

It would overcome many of the political problems which have been alluded to. The secrets of the measurement of each media would remain protected, the power of the suppliers of the measurements would remain intact, along with the relationships which have developed over many years.

Unfortunately it doesn't work!

Fusion is not a new idea. At least the basics of fusion are not new - every time media buyers have identified a target audience in terms of demographics, eg men aged 25-40, and bought TV programs for that market, they have done a kind of mental fusion.

So how does it work? At the simplest level, fusion combines one set of respondents with another set of different respondents. Data about one person is combined/fused to data about another person, based usually on shared demographics.

One thing to remember about fusion is that it is only as precise as the smallest sample (at best). If you fuse a 55,000 interview readership survey to a 500 interview TV-viewing survey, the fused product has the accuracy of the 500 interview survey (or slightly less).

Roy Morgan Research set out to test fusion. Essentially what we did was to take a single source data set[1] (n = 24,508), split it randomly into two data sets and then fuse the two together.

The fused data set created, therefore had 12,185 respondents for whom we had two responses for every question: their **'actual' responses and** the responses they were allocated under fusion (**'fused' responses).**

This represents optimum conditions for fusion and optimum conditions for evaluation. The two matched samples had:

- same sampling method
- very similar sizes
- same range of data

How then did the fused database perform?

The fused data set reproduced the original data accurately, **in aggregate.** This is not a mark of success, it is a minimum, and easily achievable, requirement. Of course, in our case, we had the advantage of very similar data sets to start with. But media surveys, like all surveys, are not just about aggregate numbers. They are about measuring the strengths of relationships between one measure and another, and this is where fusion lets us down.

The first example shows how 'fused' responses can fail to represent 'actual' responses. We looked at the proportions of 'fused' responses which correctly represented the 'actual' responses of the respondents as to whether or not they owned a cell phone and the phone company they dealt with.

[1] from Roy Morgan Single Source with data on media usage, product usage, demographics, attitudes, etc.

In Table 8 below, if the 'fused' responses represented 'actual' responses perfectly, then the diagonal would be 100%, ie 100% of those who had a cell phone according to their 'fused' response would have actually had a cell phone, and 100% of those who used the Telstra carrier according to their 'fused' response would have actually used Telstra.

Table 8 also shows that ownership of cell phones was correctly estimated only slightly better than by chance (58% owners vs 52% in the total population) and carrier even less – particularly for the smaller carriers.

Table 8. Analysis of 'fused' respondents by 'actual' respondents for cell phone ownership and phone company used.

'Actual' Responses	Cell phone ownership and company used – 'Fused' Responses				
	Total	Owners	Telstra	Optus	Vodafone
	%	%	%	%	%
Owners	52	[58]	56	56	64
Telstra	26	30	[31]	28	27
Optus	14	16	14	[15]	21
Vodafone	8	9	8	9	[12]
Other carrier	4	3	3	4	2
Non-owner	48	42	44	44	36

Source: Roy Morgan Single Source experimental fused database Australia 2000

We then recreated the fused database ensuring that respondents who owned cell phones were matched with other respondents who used cell phones. Even if the database is forced to match on cell phone ownership the next table shows that estimation of carrier is only marginally better than chance (Telstra 49% vs 48%).

Table 9. Analysis of 'fused' responses by 'actual' responses for cell phone company used – when database is forced to match a cell phone ownership.

'Actual' Responses	Cell phone ownership and company used – 'Fused' Responses				
	Total	Owners	Telstra	Optus	Vodafone
	%	%	%	%	%
Telstra	26	48	[49]	44	41
Optus	14	26	24	[26]	29
Vodafone	8	15	13	15	[16]

Source: Roy Morgan Single Source experimental fused database Australia 2000

The next test – laundry powder – showed the 'fused' responses represented 'actual' respondents' brand of laundry powder used – no better than chance. For instance, where the 'fused' response would suggest the respondent used Cold Power, only 7% of those respondents actually did use Cold Power.

Table 10. Analysis of 'fused' responses by 'actual' responses for brand of laundry powder used.

'Actual' Responses	Brand of laundry powder used – 'Fused' Responses					
	Total	Cold Power	Surf	Omo Hi Performance	Omomatic	Spree
	%	%	%	%	%	%
Cold Power	7	[7]	6	10	9	7
Surf	5	5	[5]	3	8	5
Omo HP	3	4	2	[3]	1	4
Omomatic	3	4	3	3	[8]	3
Spree	6	8	7	7	7	[7]

Source: Roy Morgan Single Source experimental fused database Australia 2000

The following Table 11 shows Omomatic (a brand of soap powder used in front-loading washing machines) almost equally likely to be used in front-loading and top-loading washing machines according to the 'fused' responses. However, the 'actual' responses show clearly that 27% of respondents using front-loading washing machines use Omomatic, compared with only 1% of those with top-loading washing machines.

Table 11. Analysis of brand of laundry powder used by type of washing machine for 'fused' respondents and 'actual' respondents.

Brand of laundry powder used	Washing machine type ('Fused' Responses)		Washing machine type ('Actual' Responses)	
	Top-load %	Front-load %	Top-load %	Front-load %
Cold Power	6	6	6	5
Surf	5	5	5	2
OMO HP	4	4	4	3
Omomatic	3	4	1	27
Spree	6	6	7	2

Source: Roy Morgan Single Source experimental fused database Australia 2000

When we recreated the fused data set yet again, this time ensuring respondents matched on washing machine type (front loader vs top loader) the estimation of Omomatic use was improved substantially.

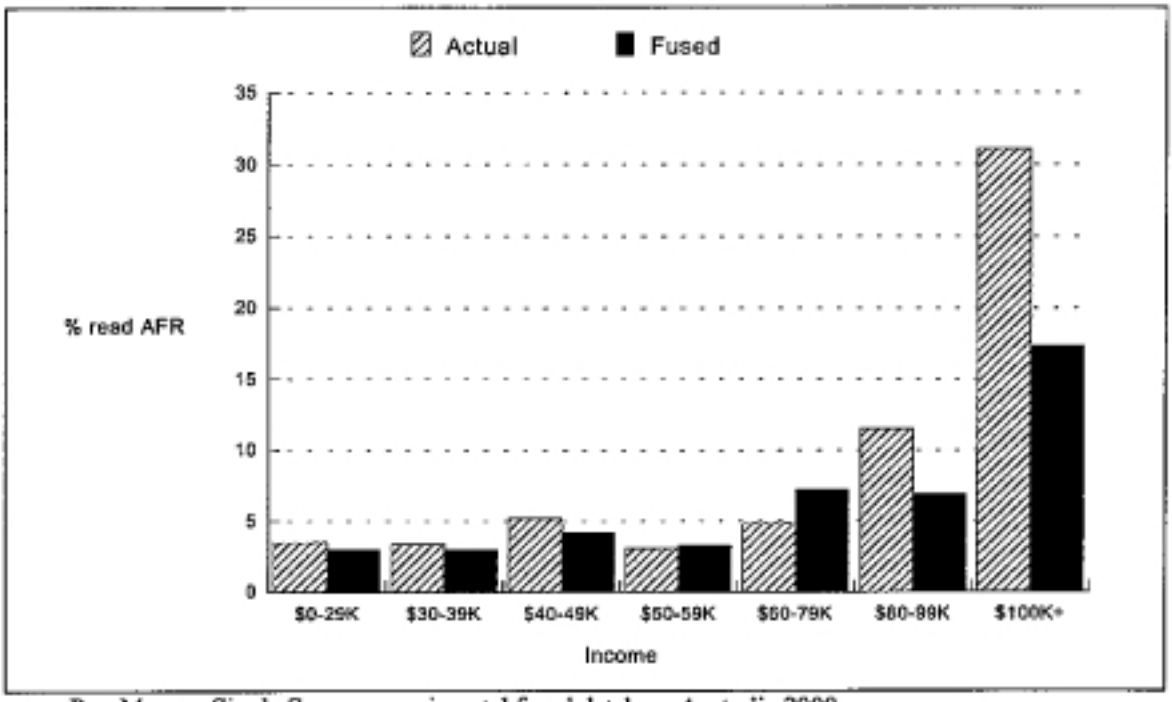
Many more examples are possible. However, it is clear that fusion is not a serious solution. In general, with fusion, relationships between two variables from different sources are diluted or blurred if the linking or matching variables (sometimes called 'hooks') are not highly efficient predictors of both, and as we have seen, different matching variables are needed for each category.

Importantly, the degree of preservation of relationships through fusion is inconsistent and unpredictable.

The lesson of this for the media is that specialist media vehicles will be disadvantaged. The broad-appeal, middle-of-the-road media will be represented more adequately because their audiences are very hard to define sharply. However, if a medium is aimed at a niche market, whether this be the very affluent, computer freaks, new mothers or sports fans, a fused data set is liable to understate the medium's ability to reach its target selectively.

The following chart shows the income profile of readers of the Australian Financial Review (the local equivalent of the Wall Street Journal or Financial Times) as revealed by the original data set and as imputed by the fused data set. Certainly readership shows up as being strongest in the top income groups, but not as strong as it should be. Its impact has been diluted by the fusion process – in spite of 'income' being one of the variables on which respondents were matched.

Figure 9. Comparison of 'actual' and 'fused' data for readership of the Australian Financial Review (similar to Wall Street Journal or Financial Times) among Men AB and C Quintiles.



Source: Roy Morgan Single Source experimental fused database Australia 2000

Potentially any specialist medium is capable of being affected in this way. The following Table 12 shows the difference between the real position of a niche magazine and the less focused position implied by the use of fused data.

Table 12. Comparison of 'fused' and 'actual' respondent readership of mother and baby analysed by parental status, and purchasing of baby items.

	All women %	Parents of babies %	Buyers of nappies (diapers) %	Buyers of other baby items %
Readers of 'Mother & Baby' 'Actual'	1.7	9.2	8.3	11.9
'Fused'	1.5	5.4	4.7	5.1

Source: Roy Morgan Single Source experimental fused database Australia 2000

Incidentally, in our fused data set over 70% of the nappy buyers apparently had no babies!

Where *more than two* databases are fused, estimates involving two different donor sources will be subject to double 'regression to the mean'[2].

There are some measures which can be taken to reduce this problem. The washing powder mismatch largely disappeared when we fused owners of front-loading machines only with owners of similar machines. But there is a limit to how much selective matching can be used to fix such localised problems. The really worrying thing is that the dilution of the strength of relationships by fusion is variable and hard to predict. The only sure thing that can be said is that it discriminates against the specialist media. It also makes the conscientious media buyer's job harder by removing much of the evidence for the cost-effectiveness of niche media. Perhaps it makes the lazy media buyer's job easier by making it easier to justify only using mass media.

[2] Fusion introduces a substantial random element into the relationships between measures from different sources so that what should be very clear differences and distinctions are seen far less clearly, a phenomenon known as 'regression to the mean'.

It is interesting that today as sophisticated marketers and communicators realise the shift is from broadcast/mass communications to more personal one-to-one communications via clients' own databases, Internet communities and the like, that the research industry is trying not only to hold back the tide – but to actually turn it around – and send us back to the pretence of homogeneity.

There is no question that information systems in the future will involve combining data from a range of sources, but fusion will be seen for what it really is – CONFUSION – rather than the sophisticated use of multiple sets of data. Our young people can and do cope with multiple streams of input. The media decision makers of the future will not thank us for confusing the streams . They will not accept it!

5. The Future

Media planning agencies are competing for business, at least in part, according to their ability to deliver successful integrated (multimedia) communication strategies.

The media are now using information to develop cross-media product: eg free magazines in newspapers; magazines on television and the Internet; cooking TV programs that drive cookbook magazines, etc. They are also packaging cross-media advertising opportunities, eg local newspapers combined with state/national newspapers, TV and magazine advertising/sponsorship, etc.

However, for the media industry another pressure point will come to bear as they seek increasingly to value their brands (mastheads) in their balance sheets. The desire will be to have high audience figures (to provide high brand value) but the audience figures will come under greater scrutiny from financial analysts (experts at numbers and their manipulation) than they have from media buyers and agencies.

Our industry is changing too. In Australia, at Roy Morgan Research, it is our experience that regardless of how or why research has been done in the past, well-focused corporations are now taking a very strategic and practical approach to research.

The focus is clearly on uses to which the information will be put - decisions which will be made based on the data.

What kind of decisions?

- How do they identify and target those clients with the most profit potential?
- What are the most appropriate products and services for their target customers?
- How do they communicate effectively with their target customer?

These decisions relate to the profitability of corporations and their competitiveness in their market.

We, in the research or the information business, must move on from worrying about methodology and get focused on accurate, relevant information.

In Australia, Roy Morgan Single Source uses a combination of a personal interview establishment survey and self-completion questionnaires.

Research purists may question:

- establishment surveys;
- the length of the questionnaire (respondent fatigue);
- response rates of self-completion surveys;
- etc, etc.

What matters is that the information is accurate. Financial information from Roy Morgan Single Source was used in a major Australian Government enquiry into banking in Australia - the Wallis

Enquiry. Comparisons of our US information with US Federal Reserve estimates of dollars in various banking products were all well within 5%.

The automotive information is used as a leading indicator of sales. In each industry we measure, the information relates well to known marketshare information (see Appendix 1).

In summary, today **single source** information and **multimedia scheduling** software are available. This means it is possible to substantially increase media productivity in the multimedia environment.

Acknowledgements

We would also like to acknowledge all those people at Roy Morgan Research who helped in preparing this paper or carefully and critically read earlier drafts of this paper: Peter Grant, Sergey Dorofeev, William Burlace, Noel Duve, Terri-Ann O'Brien, Gavin McGrath, Andrew Kennedy, Graeme Hamilton, Blayney Morgan, Jim Camm, Richard Walpole, Norman Woodcock, Debnath Guharoy, Stephen Gibson, Suvinder Sawhney, Paul D'Agata, Graeme Bryant, Lisa Forde, Peter Milthorpe, Sean McConville, Justin Stone, Vay Thieu Truong, Vaughan Crawford, Gordon Heald.

Finally, this paper would not have been possible without the support of many agencies, publishers and advertisers in the USA and Australia and in particular, Starcom/Leo Burnett and Zenith/George Patterson Bates.

References:

1. E. Ephron and S. Gray. "Why We Cannot Afford To Measure Viewers". Presented to the ARF/ESOMAR Worldwide Electronic and Broadcast Audience Research Conference, May 2000, Florida.
2. J. Kite. "Mixed-media campaigns: Can we fix it? Yes we can!". Admap, June 2001, pages 48-50.
3. G. Franz. "The future of multimedia research". *International Journal of Market Research*, Vol 42 Issue 4 (Winter 2000), pages 459 - 472.
4. A. Grove. "Only the Paranoid Survive", 1996, Currency, a division of Bantam Doubleday Dell Publishing Group, Inc.
5. Brian Dermott & Associates. "Report No. 2: Best Practice in Australia", February 25, 1998 (unpublished).
6. Roy Morgan Research International Press Releases, Article No. 21, "Who Wants to be Most Popular on TV?", August 14, 2001; Article No. 20, "Mel And Julia Most Popular in US and Oz But Americans Going To Planet Of The Apes", August 7, 2001, Roy Morgan Research website www.roymorgan.com/international/pressreleases/2001/article21.html www.roymorgan.com/international/pressreleases/2001/article20.html
7. J. Halliday. "Auto TV ads miss likely prospects: J.D. Power study", April 24, 2000. *Advertising Age.*
8. G. Morgan and M. Levine. "Proof! Same Budget, Get 30-50% Greater Value!", Roy Morgan Research website http://www.roymorgan.com/pressreleases/19981/inch.html
9. G. Smith. "Single Source – The Problem Solver, July 2000", Roy Morgan Research website www.roymorgan.com/papers/2000/2000JL2.html
10. G. Morgan and M. Levine. "Pitfalls of International Market Measurement", April 23, 2001, Roy Morgan Research website www.roymorgan.com/international/mediapapers
11. K. Damsell. "Magazine Numbers Unravelled", www.globeandmail.com
12. B&T Marketing & Media. "Relationships critical in the business of the media", August 13, 2001, www.BandT.com.au

Appendix 1:

Roy Morgan Single Source	USA Wave 1 Jul-Nov 2000	US Estimate and Source	Australia September 2000
Sample (popn. 14+ '000)	(5,544) 221,185		(23,000 - 55,000) 15,382
Smoking Incidence* % Legal Age	59,479 29.0	49 million people aged 17+ (Popn Universe 200 million) Note(*). Includes Annual Smoking of Cigars/Pipes	3,657 25.6
Smoking FMC % Legal Age	50,918 24.8	Incidence 24.7% America Heart Association 24.1% National Health Survey 25% WebMDHealth	3,158 22.1
PC's in Household %	126,232 61.6	PC penetration in US Households - "exceeds 63 per cent" Australian Financial Review - 22/01/01	9,057 58.8
Cell Phones %	102,461 46.3	100 Million phones - Various including General Motors and Newspaper / Magazine articles	7,138 46.4
Household Income $80k+ (Age 18+) %	45,581 22.2	50.6 million adults in Households where total income > $75k Current Population Survey US Census March 1999	
Amount in Transaction Accounts	$21,980	Approx $20,160 - US Federal Reserve - 08/12/00 (Total $$$ in Deposits / 14+ Population)	$15,000
Wal-Mart Turnover (Main Grocery Buyers)	$76.7 Bil (grocery only)	$109 Billion (grocery+non-grocery) - Wal-Mart Annual Report Year to January 31, 2000	Not Applicable
Sam's Club (Main Grocery Buyers)	$23.3 Bil	$25 Billion (Total) - Wal-Mart Annual Report Year to January 31st, 2000	Not Applicable
Internet Mainly Home or Mainly Work - last 4 Weeks %	115,792 52.3	108.7 Million at home and at work Nielsen//NetRatings - December 2000	6,250** 40.5
Internet Mainly At Work Last 4 Weeks %	31,856 14.4	31.8 Million Nielsen//NetRatings July 2000 (Age 2+)	2,774** 18.0
Internet Universe (ever accessed) %	148122 (16+) 67.0	163 million (Age 2+ with current Internet Access) Nielsen//NetRatings - January 14th, 2001	8,366 54.4
**NB: In Australia respondents are asked whether they have used the Internet at home or at work but not where they mainly use the Internet.			