

MATURITY MATTERS

**How and why online advertising
has been getting better over time**

**Anthony Romeo
Suzanne Moorey-Denham
Joao Neves**

Evidence has been mounting that online advertising can be an effective marketing tool. This paper demonstrates that this effectiveness has actually been increasing over time, as advertisers have learned to use the new medium and the range of tools it offers. The analysis is based on Dynamic Logic's MarketNorms database, a collection of results from more than 1,000 advertising campaigns, 10,000 creative executions and one million respondents. The results demonstrate not only the potential effectiveness of new tools like rich media and larger formats but also the importance of capturing and applying learning within the advertisers' companies and industries.

INTRODUCTION

There is no longer any doubt that online advertising can be an effective marketing tool. Numerous studies have demonstrated that online advertising not only works (e.g., Romeo and Nyhan 2002, Dreze and Hussherr 1999, Briggs 2001, Wakeling and Murphy 2002) but also that it tends to be underrepresented in the marketing mix (e.g., IAB, 2002, 2003). While reinforcing this basic proposition, the paper focuses on how and why this improvement has come about.

From the beginning online advertising posed multiple challenges for marketers. These ranged from the simple – “what does an online ad actually look like?” – to the sublime – “how will an online consumer actually react?” As with any innovation users had to learn how to use it, and, in some respects, to adapt their thinking to the demands of the new approach. At the same time, this new medium was itself evolving. Consumers were learning, and the advancing underlying technology was steadily expanding capabilities.

Under these favorable conditions one might well expect to see improvement over time – movement along a “learning curve” for online advertising. This paper demonstrates that this is indeed the case. It then goes on to explore the reasons for this improvement. Was it simply a matter of advertisers’ “learning” how to use the medium? Or have the technological advances of the medium, via bigger ads and rich media, been the source of the improvement?

BACKGROUND: DYNAMIC LOGIC’S MARKETNORMS

Our analysis is based on Dynamic Logic’s MarketNorms database. As part of its market research activities, Dynamic Logic has gathered detailed information for more than one thousand online marketing campaigns, building a database with over 10,000 classified creative executions and more than one million respondents. Information in the database dates back to the year 2000 and covers a full range of advertiser industries, brands, ad formats and sites.

While this proprietary database contains information on several brand metrics, by creative execution and campaign overall, it currently focuses on six widely recognized measures of branding effectiveness:

- *Aided Brand Awareness*: Measures the level of familiarity respondents have with the brand listed.
- *Online Ad Awareness*: Measures whether respondents recall seeing the brand advertised online in the past month.
- *Message Association*: Measures the extent to which respondents can match the campaign’s messaging with the sponsor or brand.

-
- *Sponsorship Association*: Measures the extent to which respondents can match the brand to the sponsorship of an event.
 - *Brand Favourability*: Measures the extent to which respondents have a positive or favorable opinion of the brand.
 - *Purchase Intent*: Measures the likelihood of respondents' taking a purchase action in the future (indicate will buy, or test-drive, for example).

While measures for Aided Brand Awareness (hereinafter referred to simply as Brand Awareness), Message Association, Brand Favourability and Purchase Intent have been part of the database since its inception, Online Ad Awareness and Sponsorship Association were added in 2001.

These metrics are collected through a rigorous methodology that compares the responses of individuals exposed to a campaign with those of a control group who saw no advertising. The AdIndex methodology allows campaigns to be measured as they run live on websites. Since both control and exposed groups are recruited simultaneously and from the same sites, any differences in their responses can be attributed to the online campaign. This unique approach, which Dynamic Logic helped pioneer, creates a real-world test environment of marketing in action – tested in its actual milieu as opposed to an artificial research facility.

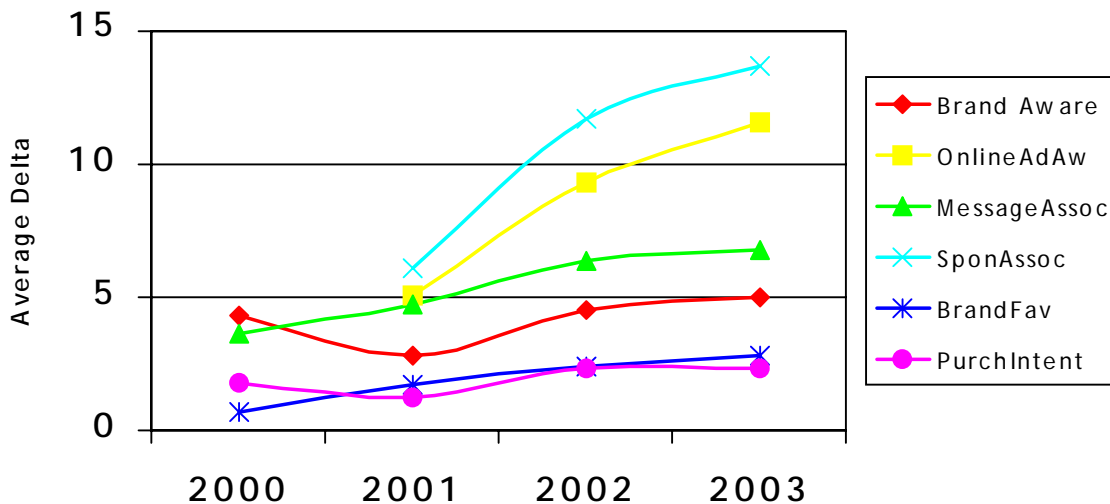
Essentially, the research compares the attitudes of those exposed to the online advertising campaign to the attitudes of those who have not been exposed. The purpose is to isolate the impact of the online campaign on people's perceptions of the brand, while controlling for any effects from offline advertising. The key result is the difference between the exposed and control groups for each of the metrics tested, referred to here as the "delta".

A number of additional elements are also measured in each campaign and entered into the database, including the advertiser, the brand, the site, the product/service industry, as well as various other characteristics of the creative format and execution. Overall, the database provides a unique, comprehensive and consistent body of online advertising campaigns, ideally suited to investigate the issues addressed in this paper.

THE BASIC FINDINGS: ONLINE AD EFFECTIVENESS HAS IMPROVED

Figure 1 illustrates the changes in the delta for each of the six metrics over a period of three years. The pattern is very clear, with an overall improvement seen for every single metric. While Brand Awareness and Purchase Intent scores dipped in 2001, these have recovered since and continued improving. For all the other metrics there has been a steady climb up. Data for Online Ad Awareness and Sponsorship Association only begin in 2001 as this was when these metrics were introduced into the database.

Figure 1
IMPROVEMENTS IN EFFECTIVENESS OVER TIME



Moreover, this improvement has been experienced by most groups of users. Since the sample sizes were too small to use the year 2000 as a base, subsequent analysis in this paper will be based on 2001 to 2003 data as well as on the four metrics most widely and consistently evaluated across campaigns, namely Aided Brand Awareness, Message Association, Brand Favourability and Purchase Intent. Figures 2 to 5 contrast the trends in effectiveness of online advertising for various industries in 2001 and 2003. At an overall level, looking at each of the metrics across industries, Aided Brand Awareness improved for all industries, with the exception of Financial Services and Telecommunications (figure 2). Similarly, Message Association increased for every industry with the exception of Travel (figure 3). In terms of Brand Favourability, all but CPG (Consumer Packaged Goods or FMCG), Alcohol and Travel experienced increases in their scores. Finally, with the exception of

CPG and Travel, Purchase Intent also increased for all industries. (See figures 2 - 5).

Figure 2
IMPROVEMENTS IN AIDED BRAND AWARENESS 2001 - 2003

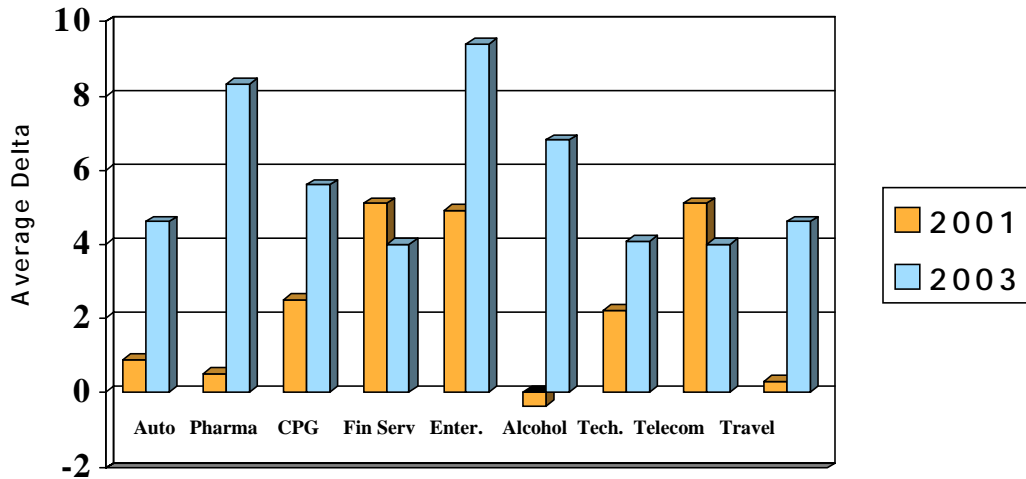


Figure 3
IMPROVEMENTS IN MESSAGE ASSOCIATION, 2001 - 2003

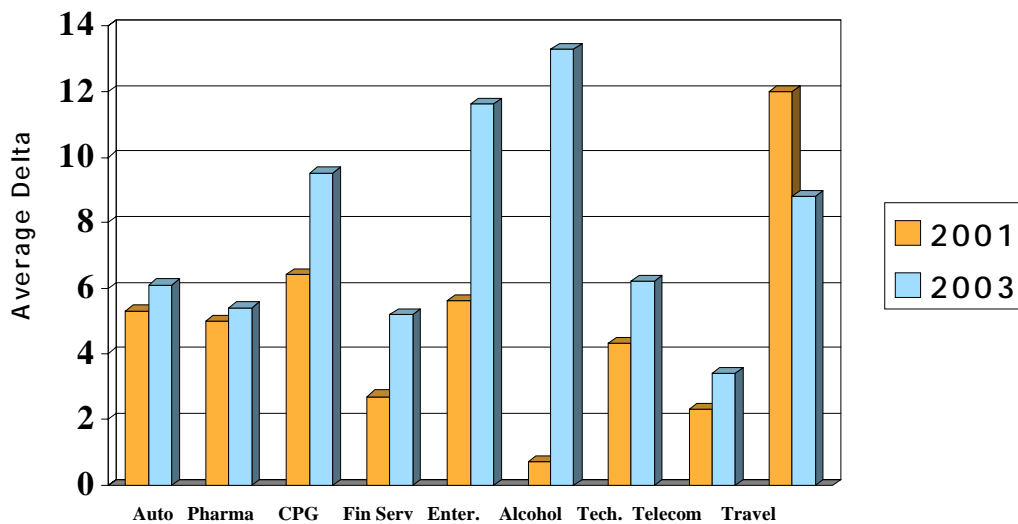


Figure 4
IMPROVEMENTS IN BRAND FAVOURABILITY, 2001 - 2003

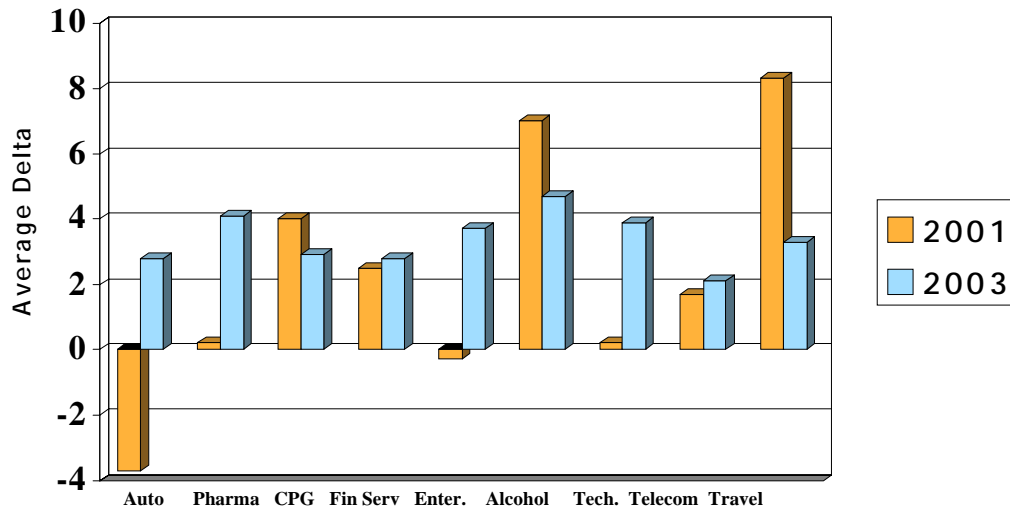
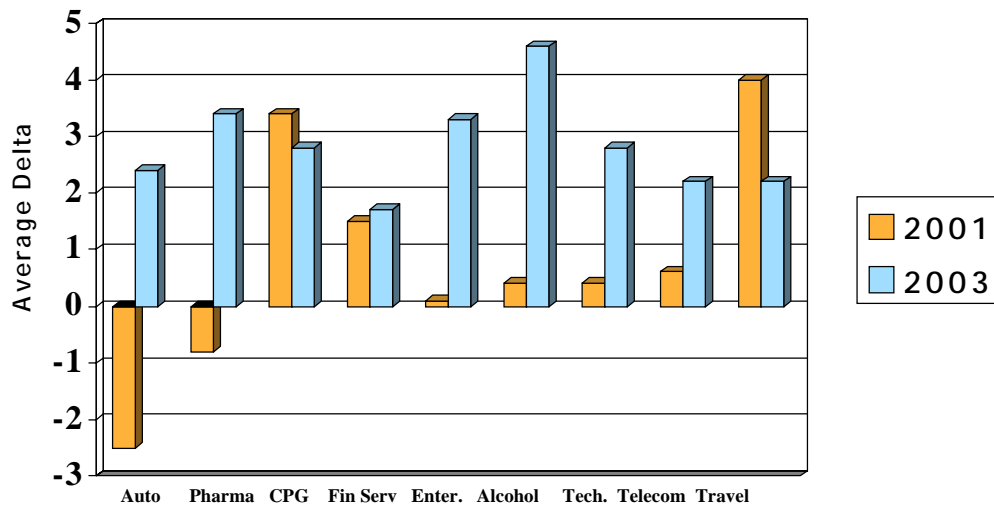


Figure 5
IMPROVEMENTS IN PURCHASE INTENT, 2001 - 2003

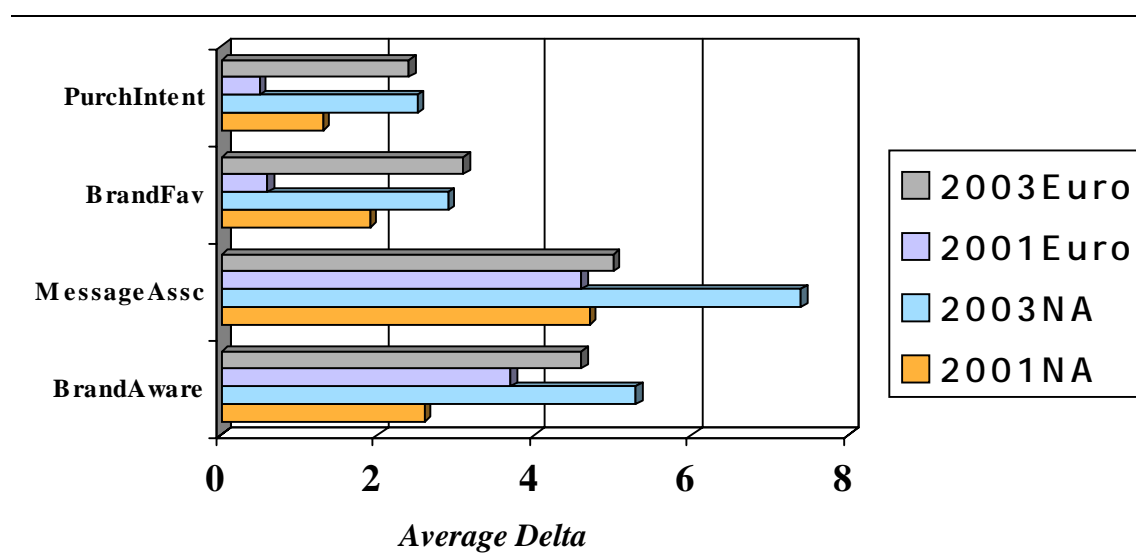


While it is useful to look at changes in brand metrics across the board, it is also important to note that the effectiveness of an online campaign cannot be fully assessed without taking into account its original goal. For instance, a campaign aiming to increase Brand Awareness is best judged against awareness metrics, rather than persuasion metrics. This may explain some of the industry differences noted above. Different industries took on the Internet in different ways, assigning it different tasks in their marketing plans. In any case, since

data on campaign objectives was not collected from the inception of MarketNorms, for this study we were unable to link the campaigns' results to their specific goals. Data on campaigns' objectives is now being collected into MarketNorms and will, no doubt, provide many valuable insights in the future.

In light of its global nature, the database provides an opportunity to explore the differences between North America and Europe. Due to North America's early willingness to embrace the Internet and Dynamic Logic's initial geographic focus, there is a considerably larger body of data for North America in the database. Nevertheless, there is enough information to compare the response patterns of the two regions from 2001 onwards. (See figure 6.)

Figure 6
IMPROVEMENTS: NORTH AMERICA VS. EUROPE



Did the earlier adoption of web-based technologies in North America give this part of the world an edge in online advertising effectiveness? It seems so – for the most part. Analysis of the data reveals that increases for most metrics tested (three out of four) were larger in North America both in 2001 and 2003. Interestingly, in the metric for which it was behind in 2001 (Aided Brand Awareness), North America had surged ahead by 2003. Conversely, Europe took the lead in Brand Favourability increases by 2003. This is not unexpected as later adopters of innovations typically “catch-up” as they learn from the experience of those who came before them. The Internet, as a global medium, is particularly friendly to that process.

EXPLAINING THE IMPROVEMENT

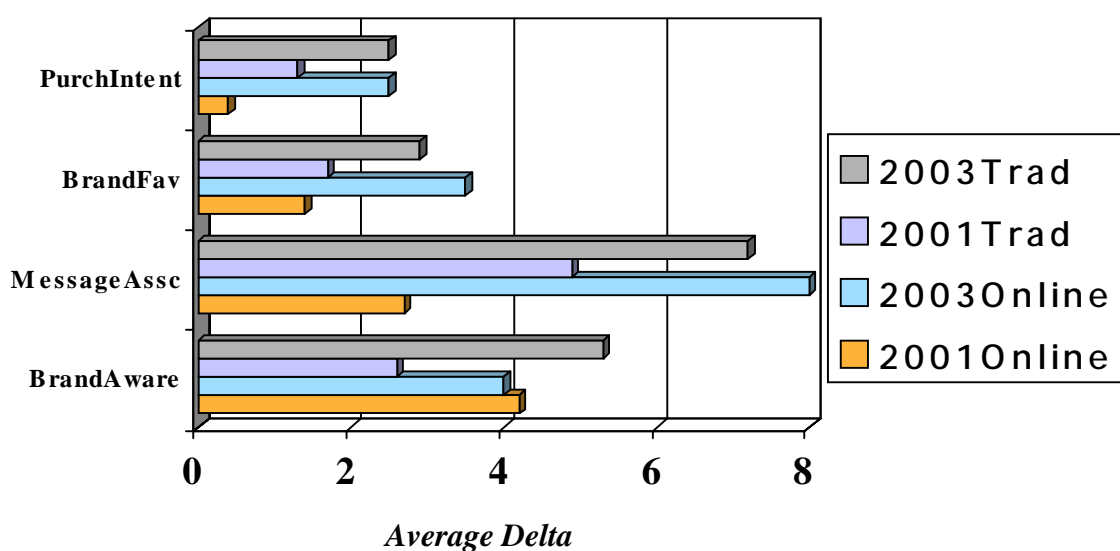
What factors may account for the increase in online advertising effectiveness over the last few years? In order to address this issue it is first useful to place the analysis within the context of the innovation process. Online advertising is a major innovation, linked to perhaps the most significant advance of the last few decades, the Internet. To a certain extent the improvement observed in this medium is not surprising as it is what one would expect from the advent of any innovation.

Innovations typically take time to be adopted and used most effectively. Studies of innovation adoption (e.g., Rogers 1995, Foster 1986) have long indicated that adoption follows an S-shaped pattern. In its early years, an innovation attracts a few initial users, typically the most daring and technologically aware. Over time others observe the experience of these early adopters until an “inflection point” is reached, when large numbers of these observers become users (often referred to as “jumping onto the bandwagon”). Once usage is established the last stragglers gradually make their way. While the S-shaped pattern is nearly ubiquitous, the speed at which the curve is traversed is not. Not surprisingly, those innovations offering more benefits tend to spread and be adopted more rapidly.

Research on innovation has often pointed out that the characteristics of early adopters, including the way they use an innovation, are usually very different to those of later adopters. Moore (1991) describes the earliest adopters of an innovation as tending to be technology-oriented and interested in exploring the new possibilities. By contrast the later adopters tend to seek practicality and established standards for using the innovation.

We know that the biggest online advertisers in the early days were the dotcom companies themselves (e.g., Jupiter Media Metrix, 2001). However, over time, the major traditional advertisers became increasingly prominent. For example, from 2000 to 2002 the share of online ad impressions generated by the top 100 advertisers increased from 15% to 30% (Nielsen/Net Ratings, 2003). It is likely that the traditional advertisers brought a different, more demanding and more experienced mindset to the world of online advertising. While the early enthusiastic dotcom firms may have been believers, they were not necessarily experienced marketers. Indeed, as shown in figure 7, in 2001 the traditional brands outperformed the online brands in three of the four metrics evaluated. The dotcoms’ edge in Brand Awareness was probably due to their lower baseline and, thus, a greater potential to generate awareness increases. Nevertheless, the online folk have been quick learners and have now caught up with traditional advertisers for Purchase Intent and actually surpassed them in terms of Message Association as well as Brand Favourability.

Figure 7
IMPROVEMENTS: TRADITIONAL BRANDS VS. ONLINE BRANDS

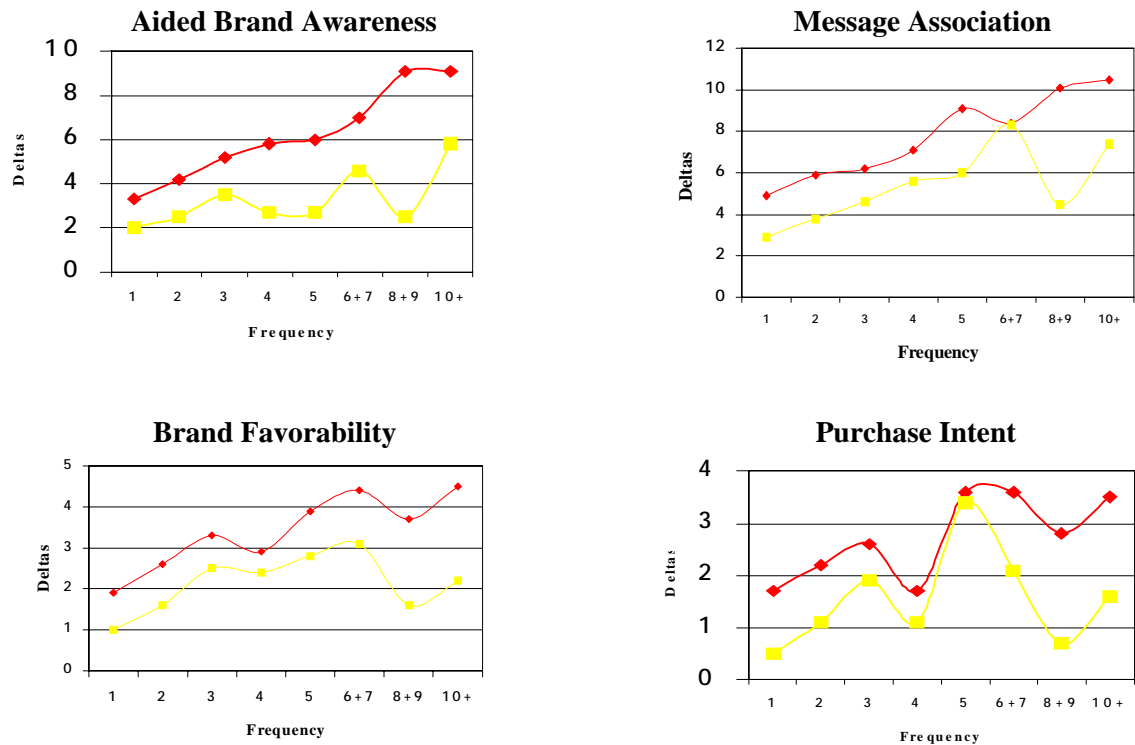


Regardless of who improved the most, what factors drove this increase in online advertising effectiveness? The innovation literature suggests that at least part of the increase would come from learning how to use the medium. This could be reflected in a variety of ways. For example, advertisers have improved their targeting, reaching consumers in more contextually relevant ways. Also, as pointed out in an earlier paper (Romeo and Nyhan 2002), creativity certainly matters, and improvements in online advertising creativity would be consistent with a learning process.

The database helps shed light on the possible effects of a number of factors. One is frequency. It is well established that increases in frequency increase effectiveness, at least up to some point. But the increase in online advertising's effectiveness over time is not due simply to higher frequency levels in the campaigns. As shown in figure 8, the effectiveness of ads in 2003 exceeded those in 2001 at every level of frequency, for all four metrics tested. (Note also the persistent declines in Brand Favourability and Purchase Intent at the four exposure and eight to nine exposure levels – perhaps indicating some consumer satiation and negativism to over-exposure.) (See figure 8.)

Figure 8
EFFECTS OF FREQUENCY ON DELTAS

◆ 2001 and ◆ 2003

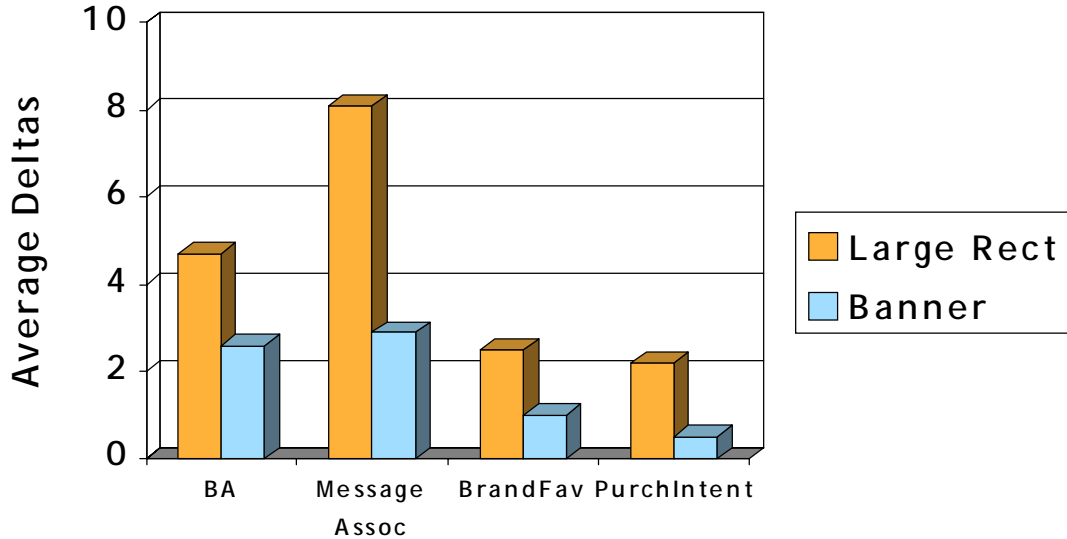


One other possibility is that the increases in effectiveness are the result of improvements in the underlying capabilities of the medium, i.e., the technology improved so advertising became more effective. Recent discussions of online advertising have focused considerable attention on two such improved capabilities, larger ads and rich media. The following two sections consider their roles.

THE EFFECTS OF SUPER-SIZING

The mantra, bigger is better, resounds. Numerous studies, including some earlier reports from MarketNorms, support this case. For example, figure 9 presents a simple and direct comparison of a large rectangle ad versus the classic banner (468 x 60). The results clearly show that bigger ads score consistently higher. It follows that as bigger ads become a larger part of the mix, one would expect to see increases in effectiveness overall.

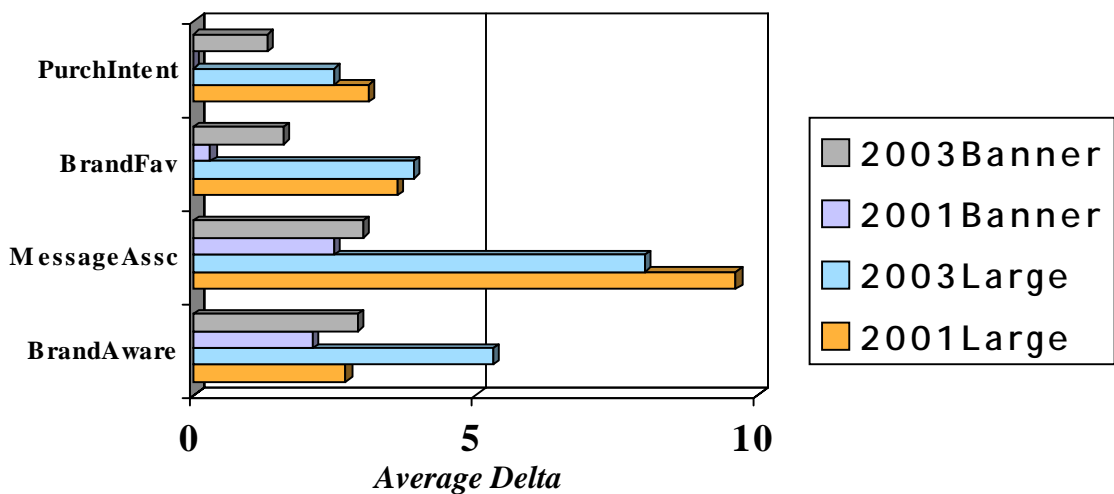
Figure 9
BIGGER IS BETTER



BA = BrandAware

However, the story is not that simple. Banner ads have themselves become more effective over time. Figure 10 illustrates improvement over time for the classic banner in all four of the major metrics. It appears that advertisers have been learning how to use this new medium ever more effectively. By contrast, the chart shows a more mixed performance for bigger ads. Overall, these observations suggest that the classic banner may not be dead, and, given the cost differential between the larger units and this type of banner, it can still be a cost-effective option.

Figure 10
IMPROVEMENTS: LARGE RECTANGLES AND CLASSIC BANNER

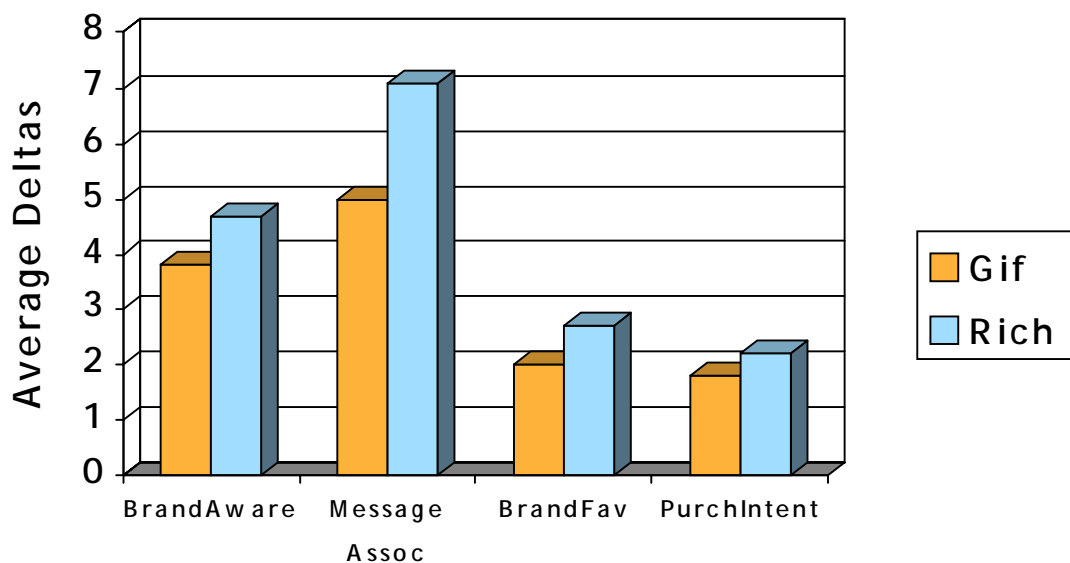


THE ARRIVAL OF RICH MEDIA

Advertisers' ability to connect with consumers via the Internet has been constrained by the "width" of the connection. The standard "narrow band" connection via telephone dial-up tended to confine advertisers to relatively simple banners and graphics. However, broadband access has been steadily growing and now accounts for more than one-quarter of all Internet connections. This development is facilitating a growth in the use of rich media, data and information rich ads, with complex graphics and /or video.

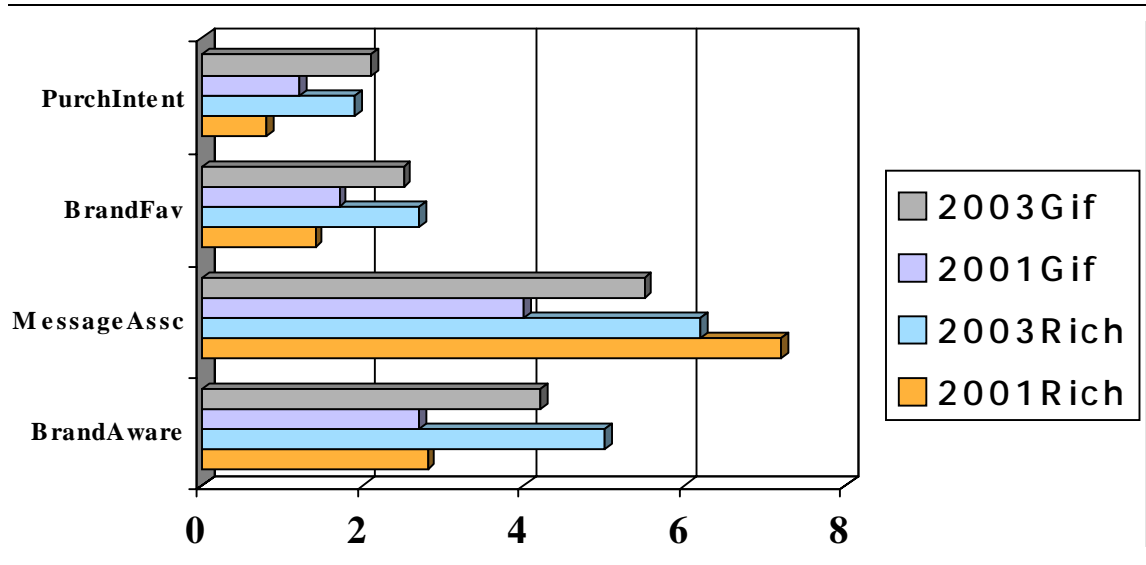
Figure 11 uses MarketNorms data to compare the performance of rich media versus traditional Gif creative. Rich media ads score consistently better. As in the case of bigger units, rich media ads have been accounting for a growing proportion of all online ads, up to nearly 40% of ad impressions in Q4 of 2003 according to Doubleclick (2004). The growing use of this more effective format will certainly account for some of the improvement in online ad effectiveness.

Figure 11
RICH IS BETTER



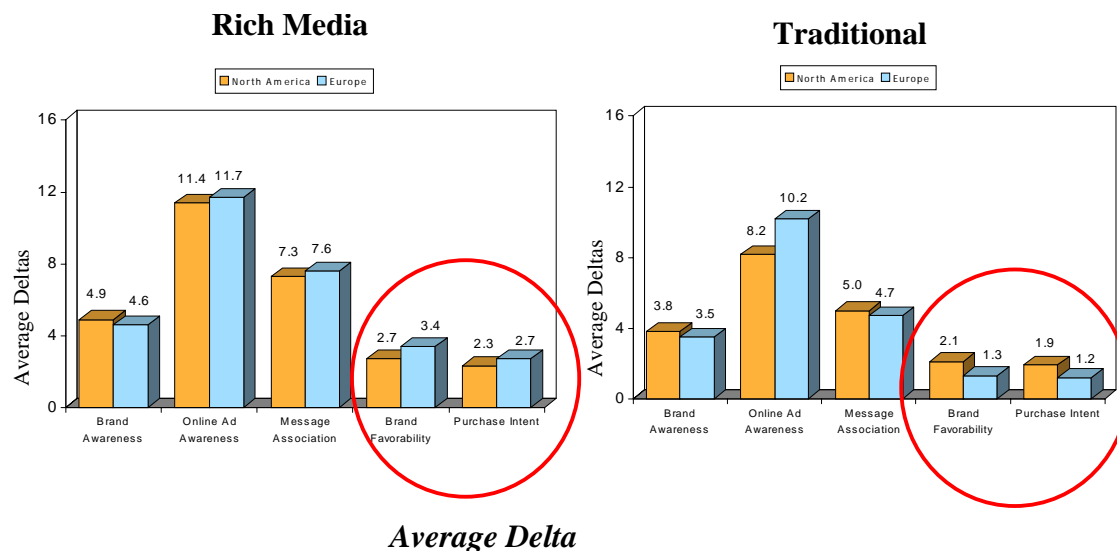
However, this shift in the type of ad tells only part of the story. As shown in figure 12, the performance of both Rich and Gif ads has been improving over time (with only one exception, Message Association in the case of rich media). It may be that some of this improvement is due to enhancement in the capabilities of both Rich and Gif. Certainly, the range of rich media tools has been expanding. However, the results do suggest some learning in how to use both sets of technologies.

Figure 12
IMPROVEMENTS: RICH VS. GIF



Further evidence that how one applies the technology matters is provided by the results shown in figure 13, a comparison of Europe versus North America in the effectiveness of Rich and Gif media. Of particular interest are the results for the “persuasion” metrics. When using Rich Media, Europe seems to perform better in building persuasion. However, North America does better on the same measures when comparing ads using traditional Gif. Regardless of these differences, the figure also shows that in both countries, Rich Media tends to be associated with the largest improvements in all metrics. (See figure 13.)

Figure 13
EUROPE VS. NORTH AMERICA: BY CREATIVE TECHNOLOGY



- Average Delta*
- *Europe seems to perform better in building persuasion vs. US using rich media executions.*
 - *However, N.A. seems to be more persuasive using traditional Gif creative than their European counterparts.*

IMPROVEMENT BY COMPANY

One final piece of analysis was also undertaken, exploring the changes in the performance of online advertising campaigns among top advertisers. Although MarketNorms holds data from dozens of advertisers, this analysis was limited to the top 21 advertisers to assure a full set of campaign experiences over the time period.

At a top-line level, the data reconfirms the basic findings outlined above. On average, from 2001 to 2003, the online advertising campaigns for this group of top advertisers showed improved scores on all four of the metrics discussed. However, this improved performance is not seen across all the advertisers in this group. In fact, improvement in all four metrics was experienced by only eight of the 21 advertisers included in the analysis. Improvement in three of the four metrics discussed was seen in an additional five advertisers. Another five advertisers showed advances in two metrics, while another two advertisers only had improvements on a single metric. Finally, one of the top advertisers actually experienced a decline in average performance on all four metrics. It is important to note that overall, these observations reflect a mix of online campaigns with varying success by each advertiser rather than consistently bad or good performances.

Despite the small sample size, multivariate regressions were run using average improvement by advertiser from 2001 to 2003 (i.e., the change in the delta), for each of the four metrics, as independent variables. Dependent variables were changes in the share of campaigns that included rich media; changes in the share that had large ads; and changes in average frequencies. Dummy variables were also used to control for industry differences.

While we have found that these are often important factors in a campaign's performance, the analysis found no statistically significant relationship between changes in the use of larger ad formats, rich media or frequency of exposure and a company's advertising performance improvement from 2001 to 2003. There were, however, some industry effects. Notably, the CPG industry did significantly worse in improving Purchase Intent, Telecommunications did significantly worse in both Brand Awareness and Brand Favourability while the Automotive industry did significantly better in improving Brand Favourability.

The experience of these advertisers reinforces the view that improvement in online advertising's performance has not happened automatically. New capabilities have to be learned and applied. The erratic performance of the top companies, which results from inconsistency in achieving success across campaigns, suggests that many have not yet excelled in capturing and transferring this knowledge within their own organizations.

FINAL CONCLUSIONS

The current paper demonstrates that Internet advertising has become increasingly effective over the past few years. It also shows that this improvement varies by country and industry, and is associated with the increased usage of rich media and larger ad formats.

All in all, the paper points to a complex interaction of advancing technology and learning effects. While advances in technology have been critical in this process, success cannot be solely attributed to using the latest tools. While the new tools do offer potentially more effective ways to communicate, they still need to be accompanied by strong message, creativity, and effective targeting. Moreover, while learning is clearly taking place, the experience of the larger advertisers suggests that it is not entirely consistent. A more systematic capture and analysis of campaign results and better communication of the obtained insights within companies and across industries is critical if we are to speed up the diffusion of best practice online advertising.

REFERENCES

- Briggs, Rex. (2001). The Role of Creative Execution in Online Advertising Success, Measuring Success: an Advertising Effectiveness Series from the IAB, (1, 4). October 2001. <http://www.iab.net/measuringsuccess/img/Creative.pdf>
- Dreze, Xavier and Hussherr, Francois (1999). Internet Advertising: Is Anybody Watching? Working White Paper, USC Marshall School of Business, Ecole National Supérieure de Telecommunication, <http://www.xdreze.org/Publications/list.html>
- DoubleClick (2004), as presented in ClickZ, 3/2/04.
- Foster, Richard J. (1986). *The S-Curve: Profiting from Technological Change*. Simon and Schuster.
- Interactive Advertising Bureau (2002, 2003), XMOS studies, various.
- Jupiter Media Metrix (2001) Online advertising Still Dominated by Dotcoms, as presented in ClickZ, 1/30/2001.
- Moore, Geoffrey M. (1991). *Crossing the Chasm*. Harper Business.
- Neilsen/Net Ratings (2003), as presented in ClickZ, 3/30/03.
- Rogers, Everett M. (1995). *The Diffusion of Innovations*. 4th edition, The Free Press.
- Romeo, Anthony and Nyhan, Nick (2002), Getting Real: Drivers of Effectiveness in Online Brand Advertising, Dynamic Logic White Paper, 2002.
- Wakeling, Patti and Murphy, Brian (2002). CPG Ad Commandments. Unilever and IRI presentation at ARF Spring 2002 conference. <http://www.iab.net/measuringsuccess/>

THE AUTHORS

Anthony Romeo is a Strategic Consultant, Dynamic Logic and CEO, Strategic Dynamics, LLC, United States.

Suzanne Moorey-Denham is Managing Director, Dynamic Logic Europe, United Kingdom.

Joao Neves is Research Manager, Dynamic Logic Europe, United Kingdom.

