Building bridges across Paid, Owned and Earned Media to optimize media mix efficiencies and effectiveness

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Lead Contributors

**KATRIN RIBANT**  
Data Platforms  
Havas Media Group

**SYLVAIN LE BORNGE**  
Insights & Data Solutions  
Artemis  
sylvain.leborgne@havasmg.com

**ARNAUD PARENT**  
Director, Research & Development, PhD  
Havas Media  
arnaud.parent@@havasmedia.com

**DOUG WATSON**  
Data Solutions  
Artemis  
doug.watson@havasmg.com

**DEJAN DUZEVIK**  
Chief Technology Officer  
Concentric  
dejan@concentricroi.com
Executive summary

Increased fragmentation of the media space and constant innovation in the digital media space pose a challenge to Marketers who need to understand how to optimally combine communication vehicles to reach their marketing goals.

At the center of this challenge is the individual consumer who is confronted with an extreme number of choices in brands, products, services and media messaging. Today’s consumer behaviors and choices are getting more complex and harder to understand. These complexities have rendered some of the traditional tools that Marketers use for media mix optimization less efficient.

Boundaries between traditional and digital media are fading, as are limits between Paid, Owned and Earned marketing actions. Silos make less sense than ever. A holistic approach that considers the overall marketing strategy is needed to help Marketers achieve their goals efficiently and effectively.

Havas Media Group is proposing new approaches to help Marketers understand how different combinations of messaging vehicles can help them achieve their goals, leveraging synergies between channels using a 100% fact-based, data-driven approach.

Artemis Attribution for Paid, Owned and Earned Media helps Marketers optimize spend whilst taking into account how different channels impact different consumer segments in real-time.

Based on simulation methods born in the science of complexity, this new framework for attribution management builds on algorithmic digital attribution and has the capability to integrate results from econometric modeling to help Marketers understand how their efforts can help get their message across to the right people at the right time.

As we continue developing our toolset, we will publish more results in further Insights documents. In the meantime, we would be delighted to discuss individual business issues and opportunities, whether you are already a Havas Media Group client or simply just interested in a more case-specific perspective. Please contact your Havas Media Group Account Director, the appropriate Havas Media Group country Managing Director or any authors to find out how the emerging opportunities in digital marketing can play a key role in your overall marketing plans.
Why a new approach for performance attribution?

Ad serving, social and web analytics data enable Marketers to have access to more extended and precise insights on consumer behavior. This wealth of information means that differences between consumer segments are better understood today than ever before.

These differences are instrumental in designing effective and efficient campaign architectures that drive the right message to the right people. Traditional marketing mix modeling methodologies, like econometrics, are not designed to easily take these differences into account.

Increased complexity of the media space means Marketers need to optimize campaigns that have multiple objectives and target groups. Moreover, the increasing complexity that Marketers have to handle when measuring results of multi-channel campaigns and business results means that there is not one answer that fits a given set of circumstances. Rather, Marketers need the flexibility to experiment with different scenarios and understand how a change of inputs influences different consumer segments (i.e. running TV and paid search together increases web base sales for product A).

In this Insights piece, we look at 3 different client cases involving the following:

- A CPG advertiser who wants to know if investing in their Facebook presence can help to increase consumer engagement to eventually increase sales.

- An ecommerce advertiser using social media, including Twitter as a Customer Relationship Management channel. This Marketer wants to maximize his most profitable customer segment.

- A finance advertiser using TV, search and display as well as social to drive online applications for insurance subscriptions. This Marketer’s goal is to increase valid online applications.
How is Havas Media Group’s approach different?

We do not believe that there is one answer to any Marketer’s attribution questions. Therefore, we focus on enabling Marketers to experiment with “what if” scenarios allowing them to understand how different mixes of media channels, social connectivity, competitive offering and other contextual influences result in different outcomes.

Enabling “what if” scenarios

To enable relevant “what if” scenario building, we create an ecosystem which mirrors a given historical period of time. This is done in 4 steps:

1. Integrate data sets
2. Create ecosystem
3. Build multi-dimensional attribution model
4. Experiment “what if” scenarios

- Shift 3% from TV to search
- Shift 5% to display
- Phase TV to search
- Shift 3% from TV to search
- Allocate 45% to brand campaigns
- Modify campaign flights
- What if?
**Step 1: Integrate data sets**

We gather data relative to the Marketer’s activity. This ranges from digital/offline campaign data to web analytics or social data, as well as data about the Marketer’s competition and product offerings.

After a thorough analysis of business needs and available data sources, data is selected and gathered according to how relevant it is to answer the Marketer’s questions. This step is about identifying “useful big data” rather than simply assembling all available data sets.

**Step 2: Create ecosystem**

Using Agent Based Modeling, a leading-edge, mathematical simulation methodology, we create an ecosystem that will reproduce the outputs of the data we integrated.

This ecosystem is based on a series of simulated users (the more the better, as shown in the case studies in this paper, we often work with 1 Billion+ users) that act as consumers, using media, social buzz and connectivity data to determine their purchase behavior.
To check if the ecosystem gives credible results, we will calibrate it against historical data. This means that an ecosystem should reproduce real historical results with a high level of accuracy before we can use it to build the “what if” scenarios.

### What is Agent Based Modeling?

Agent Based Modeling (ABM) aggregates disparate data to create “agents” (simulated people) that are representative of the real world population. ABMs are used to uncover the causes of complex and often surprising outcomes in systems as diverse as molecules, the Internet, traffic jams and, now, online consumer journeys.

Because ABMs are designed to understand individuals, they are suited to help Marketers understand how different user segments behave as a function of marketing campaign exposure. For more on ABMs see: [http://en.wikipedia.org/wiki/Agent-based_model](http://en.wikipedia.org/wiki/Agent-based_model)

Here is an example of what a social network looks like for 2 different clusters of users. The right cluster is clearly the denser of the two. This means that information will propagate a lot faster in this cluster and, for example, influence how awareness of a product offering is increased among users.
Step 3: Build multi-dimensional attribution model

The system outputs an attribution model according to the role each influence plays in the consumer's journey to decision making. This model is fully transparent and can be tweaked and calibrated using the Marketers business knowledge to connect potential skews.

Artemis Attribution for Paid, Owned and Earned Media is fully transparent, evidence-based and data driven. We take all media vehicles into account in a truly cross-channel approach that addresses the complexity and diversity of today’s media landscapes and consumer behaviors.

Step 4: Experiment with “what if” scenarios

The purpose of creating “what if” scenarios is to answer questions about media mix optimization. These questions could be:

- What is an optimal allocation between online and offline?
- What is the right allocation between search and display?
- What is the value of having a growing fan base?
- Does my connectivity in the social sphere positively influence sales?
Artemis Attribution for POE Media allows Marketers to create as many of these scenarios as they wish to explore and compare effects of different strategies on overall sales (or other variables defined as outcomes). Continuous injection of real-time data informs allocation and re-allocation of spend according to real-world results of these decisions. This allows for real-time piloting of media strategies adapted to a rapidly changing context. In the following section, we will outline three use cases showing how we answered some of our client’s questions.

CASE 1
CPG MARKETER
Impact of fan base growth on sales

This case study looks at the CPG category. This CPG Marketer runs a loyalty program on Facebook for one of their flagship products. The program focuses on healthy food and lifestyle recommendations and is aimed at creating a motivational community fostering better and healthier lifestyle habits.

Many Marketers struggle to understand how to properly balance investments between new users and advocates. Using Artemis Attribution to analyze this CPG Marketer’s Paid, Owned and Earned Media activities, we provided an integrated view of performance and optimized their dual strategies.

Marketer’s concerns

• Digital budget setting and how to allocate spend between channels, specifically share of spend between video and social.
• How to articulate digital campaigns with TV campaigns to:
  — Maximize synergies with TV spend.
  — Understand how to use channels to leverage reach on different consumer segments as well as new/loyal customers.

KPIs

We selected a variety of online KPIs that are considered as indicators of engagement and predictive of the consumer’s purchase behavior such as subscription to the Marketer’s loyalty program, time spent/frequency of visits on the program’s micro site and coupon downloads.
STRATEGY

The advertising program runs display, video and search, while promoting the Marketer’s Facebook page and driving people to a reduction coupon on their website.

CHANNELS USED

- Video
- Display
- Search
- Facebook pages
The following chart shows how digital spend is concentrated on video and display. Search accounts for 15% of clicks for this marketing program. **This media mix helped the Marketer build a sizeable fan base of over 300,000 fans.**

**Digital Mix:** Majority of volume is concentrated on video and display

- **Video and display dominate the digital mix.** Social ads campaign is minimal.
- **Loyalty program has been successful on Facebook,** with the help of display, video and search ads.

The following section details our approach to:

a) **Attribution:** Last click versus Artemis Attribution for POE Media

b) **Media Mix Scenarios:** Shifting budget from video to display or invest in building fan base?
a) Attribution: Last click versus Artemis Attribution for POE Media

Video (the darkest blue bar on the chart below) takes the majority of attribution based on the last click model. Despite the relative balance of display, video impressions and clicks (see pie charts), it seems video has a greater impact than display.

**Attribution: Last click attribution favors video and does not credit social**

| Artemis POE Attribution takes credit away from video | Display and the Marketer’s social presence on Facebook gain credit |

Last click attribution favors video, does not credit social

The re-allocation of credit from video to display makes sense as display usually plays a role in earlier stages of the funnel. Display and video have complementary roles. Video takes over where display appears, diminishing returns and acting as a complementary channel for TV. This exposes the Marketer’s message to consumer segments that are difficult to reach through traditional TV actions and engages all consumer segments with a direct link to the Marketer’s loyalty program.

Since coupon downloads from Facebook fans cannot be tracked directly, we ran Artemis Attribution for Paid, Owned and Earned Media and determined that 10% of conversions could be credited to the advertiser’s fan base.
b) Media mix scenarios: Shifting budget from video to display or invest in building fan base?

Based on the re-allocation of conversions credited to display and social by Artemis POE Attribution, we explored two scenarios of media spend optimization:

- Move 10% of spend from video to display
- Invest in building fan base

**Move 10% of Spend from video to display**

Based on the re-allocation of conversions credited to display and social by Artemis POE Attribution, we explored a scenario of media spend optimization and proposed a move of 10% of spend from video to display.
Despite the fact that more credit was attributed to display by Artemis Attribution for POE Media, this scenario predicts an 8% drop in coupon downloads. The explanation for this drop is that the display channel has reached its level of diminishing returns for this Marketer. Additional spend in display will not result in better performance. Therefore, we need to explore alternative channels.

**Invest in building fan base**

We explored what would happen if the Marketer was to increase their fan base and created two scenarios based on our findings:

- Increasing fans by 20%
- Increasing fans by 100%

For this advertiser, investing in growing their social presence results in an increase in conversions. Since the display channel is saturated and Artemis Attribution for POE Media credits the Marketer’s social presence for 10% of conversions, we discovered that growing their fan base can help them increase conversion volumes in the short term and sales in the long term.

The more the fan base increases, the higher the projected growth in conversions. If the Marketer were to double the size of their fan base, conversions would increase by 23%. **We recommend investing in social ad campaigns and specific social actions that will help grow this Marketer’s Facebook presence.** This will foster engagement in their loyalty program and lead consumers to keep the Marketer’s product top of mind, while resulting in higher sales volumes.
CASE 2
eCOMMERCE MARKETER
Impacting sales through social media

Internet is instrumental to this ecommerce advertiser’s media mix and sales. Although their business model was traditionally bricks and mortar, they successfully shifted to the web as a distribution channel. Today, about 60% of sales happen on their website. Their products call for a purchase window from a few days to several weeks and peer reviews are important to consumer’s choice.

60% of sales happen on the Marketer’s website

This Marketer’s goal is to understand:

• What digital media mix will result in more customers and more of their most valuable customers?
• Can they impact sales through the use of social media?

To answer these questions, we analyzed:

• 12 months of data
• 100+ campaign
• 1 billion user journeys

• 33 billion events
• Digital and social media channels
Question 1: Optimizing the digital media mix

First, we looked at channel attribution to answer the Marketer’s question: What digital media mix will result in more customers and more of my most valuable customers?

a) Channel impact

We determined that credit for sales that were previously accounted to paid search was shifting to display. In fact, attribution to display more than doubled. This clearly indicates that display is helping customers make their choice at earlier stages than search.

Channel attribution shifts credit to display

We found more evidence of the impact of display at earlier stages of the decision making process by running a channel impact analysis.
The left part of the chart below represents the moment of purchase. Both search (lighter blue line) and display (darker blue line) have the greatest impact close to the moment of purchase, with search being more impactful than display.

Display has a greater impact than search 6 to 14 days prior to purchase (the darker blue line is higher than the lighter blue line from 6 to 14 days prior to purchase).

**b) Customer value**

To determine customer value, we segmented customers into three categories according to their revenue/purchase ratio.

As shown on the pie chart on the following page, about half of the revenue comes from Platinum customers (darkest blue), the top 20% most valuable customers. So the 20/80 rule becomes the 20/50 rule for this Marketer.

Platinum customers are six times more valuable than Silver customers and three times more valuable than an average customer as shown on the bar/line chart on the following page. This means that focusing on attracting an additional Platinum customer should bring three times more revenue than acquiring an average customer. Therefore, this Marketer’s strategy should focus on analysis of parameters that grow the acquisition and lower the levels of churn of Platinum customers as a priority.
c) “What if” scenarios: Optimizing for the most valuable customers

In order to maximize overall sales volume with a focus on maximizing Platinum customer acquisition, we analyzed two scenarios for moving spend from search to display. First, moving 5% of spend to display and then moving 10% of spend to display.

Both scenarios resulted in increased sales. Moving 5% of spend to display is the most efficient scenario, both for overall sales volume increase and for Platinum clients volume increase. Moving 10% of spend to display increases overall sales volume less than moving 5% of spend to display, resulting in acquisition of less valuable customers.
Moving 5% of search spend to display brings best results

**Question 2:** Can social media impact sales?

First, we looked at channel attribution to answer the Marketer’s question: **What digital media mix will result in more customers and more of my most valuable customers?**
a) Connectivity in the social space influences sales

During the concerned time period, a news event negatively impacted this Marketer’s category. After this event, sales dropped over several weeks. We built scenarios examining how spend allocation and efforts in social media could have helped sales grow back to normal quicker.

The first chart looks at a projection of sales using the average connectivity of the Marketer’s space. We project what the recovery (dark blue line) would have looked like if the Marketer’s connectivity in the social space was on par with the average for their industry. If the Marketer had average connectivity in the social space, the dip in sales would have been less and the recovery would have been faster.

In this graph, we compare sales for the same time period as above but have projected a scenario in which the Marketer has higher connectivity than the industry average. Not only is the recovery faster but also most seasonal peaks are amplified by the spread of the Marketer’s promotion through online word of mouth.
As Artemis Attribution maps the effect of Paid Media on Earned and Owned Media, it helps Marketers who are faced with unforeseeable events affecting their sales. It assists with the design of Paid Media actions that help boost their social presence in the recovery phase of such an event.

### CASE 3

**FINANCE MARKETER**  
Phasing TV and search to drive subscriptions

In our third case, we look at a Finance brand whose sales process involves driving people to their website where they can apply for an insurance policy. To drive people to apply online, our Finance Marketer uses a mix of digital and offline channels including paid search and TV.

**CHANNELS USED BY FINANCE BRAND**

Although this Marketer’s media mix is far more complex and makes use of multiple channels, including display, social and radio, we chose to focus on one particular campaign and narrow down to TV and search only. This has been done in order to better assess the Marketer’s questions about digital and offline phasing.

TV’s main role for this Marketer is to raise awareness and drive online search for specific keywords. Search engine marketing is directly aimed at views on the Marketer’s website where people consider applying for an insurance policy.

Once the prospect posts their insurance policy application online, the lead generated goes through a validation process, resulting in a data passback between the Marketer’s data systems and Artemis.
The Marketer’s goal is **to drive more successful applications**, meaning more applications that actually result in an insurance subscription.

**KPIs**
Online applications validated through passback of completion data from the Marketer’s database.

**The 2 scenarios we explored involve shifting spend from TV to paid search in order to increase valid applications:**
- Shifting 3% of spend to paid search adding $210k to current $567k spend
- Shifting 5% of spend to paid search adding $350k to current $567k spend

**Both scenarios result in an increase of valid applications.**

Since shifting 5% of spend results in a higher increase in valid applications, we recommend up weighting the paid search campaign and reassessing performance during the following month.

However, shifting spend from TV to search in order to improve results needs to be implemented carefully.
Paid search conversion rates are 14% higher on average when a TV campaign is aired. Therefore, we recommend that additional budgets are concentrated on the time periods where TV is active.

Adapting phasing of additional search budgets in real-time according to how they are impacted by TV actions could help boost this Marketer’s KPIs even further by maximizing digital and offline synergies. In further stages of optimization, we will broaden the scope of the analysis to include social and other paid channels.
Conclusion

In the light of the ever growing complexity of the digital media landscape, few Marketers still believe that there is one perfect answer to their spend allocation challenges. If there were to be such a solution, it would have a short lifespan and quickly be disrupted by a shift in consumer behavior fostered by the digital media revolution.

Havas Media Group has made certain the continuous development of tools and methodologies that help Marketers manage and optimize their efforts, in accordance with the level of complexity of their vertical and consumer segments. We do not believe in one size fits all marketing strategies nor relationship management. As we continue developing our toolset, we will publish more results in further Insights documents. In the meantime, we would be delighted to discuss individual business issues and opportunities with you, whether you are already a Havas Media Group client or simply just interested in a more case-specific perspective. Please contact your Havas Media Group Account Director, the appropriate Havas Media Group country Managing Director or any authors of this Insight to find out how many of the emerging opportunities in digital marketing can play a key role in your overall marketing goals.