Optimizing Spend Across Online and Offline Channels
10/20/2011

Part II – Integrating Attribution into a research framework
(Jorge)
It’s critical that you set the right agenda

• “Attribution” means many things to different people
• Can in most cases be broken down into two areas:

Attribution as **Micro**
Optimize Digital Settings & Levers

- For how many days can I take credit for view-based conversions?
- Should I keep investing in placements that don’t drive a lot of immediate conversions?

Attribution as **Macro**
Measure the overall cross-channel Impact

- Which channels within my campaign drive the best Brand Awareness / Intent lifts?
- What is my optimal channel mix through to sales?
Define what is Attribution to You

• This requires a clear understanding of goals, media behavior, consumer

• Before any complex research is done, assess what you can improve in your media tracking today

• Be frank with the limitations / caveats – no silver bullet
## Set an Attribution Framework

<table>
<thead>
<tr>
<th>Brand / Offline</th>
<th>Macro</th>
<th>Micro</th>
<th>Online</th>
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<tbody>
<tr>
<td></td>
<td>Measure the overall cross-channel Impact</td>
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### Macro
- Ad-Exposure Cross-Media Research

### Micro
- Display View-through Test
- Assist Analyses
- Attribution Probability Models
- Lifetime Value Analyses

### Timeline
- Within first 6 months...
- ...Anytime after
Case Study 1: Attribution for Digital Media (Web Conversions)

• Key is for outputs to be used in context of media prioritization

A model to help attribute placements...

Old Rank: placements by # ‘Last-Touch’ conversions

New Rank: placements by # ‘Attributable’ conversions

...and identify the opportunity

Incremental Search Conversions


Case Study 2: Attribution for Online + Offline (All Conversions)

- Critical to take the time to build a rich dataset that can help nuance your media mix models
- Best if your outputs can incorporate the *indirect* effects
Case Study 3: Attribution for Online + Offline (Brand & Sales)

- When running campaigns with Brand goals, cross-media results can tell you the channel mix brand impact
- Can sometimes leverage this data for deeper sales analyses
Attribution eventually leads back to Testing

• There will be new types of media / tactics with changing inventory
• Campaign goals may change
• Stuff will break
Optimizing Spend Across Online and Offline Channels

Jorge Ruiz, Ogilvy
Alexei Milgram, Mediacom
Sarah Searls, Choice Hotels
Optimizing “Incremental” ROI Across Online and Offline Channels

Sarah Searls
Senior Director, Performance Analytics, Choice Hotels
eMetrics Summit, NYC 2011
Choice Hotels International

- Hotel Franchisor
- 2nd largest U.S. hotelier with approximately 5000 U.S. hotels (and over 6100 Worldwide)
Agenda

1) **The Question:** How Do We Allocate Spend Across Online and Offline Channels to Optimize “Incremental” ROI?

2) **The Challenge:**
   1. Difficult to Attribute Offline Data to Bookings
   2. Today’s widely used Online Measurement techniques generate lots of data and “results” – but can over/under attribute “incremental” revenue and ultimately be misleading:
      - View-Through Approach (Online Banners)
      - Last-Click (Paid Search)

3) **A Solution** – Traditional Media Mix Modeling
TV

- Difficult to Attribute to Bookings
  - Booking activity is very seasonal
  - Challenging to distinguish important variables such as:
    - Early Morning vs Cable
    - :30 Secs vs :15 secs
    - Halo effect on other media
Lots and lots of data and “tracked” revenue...... Challenging to tease out “incremental”
Online Display Ads – Many Shapes and Sizes

- They are interactive and “fly” out of your PC.
- Difficult not to notice this ad…
Online Display Ads – Many Shapes and Sizes

• Small, “Static” and “Below the Fold”.
• Difficult to see these advertisements.

Measuring Online Display Ads – Many Shapes and Sizes
Display ROI Often Measured via “View Through Approach”

“View-Through” Approach:

• Online Ad is served. Regardless of size, shape, animation (or whether user took note of ad), a tracking “cookie” is dropped on user’s PC once ad is served.

• “Cookie” tracks ALL revenue associated with user on the website for a determined number of days (1, 7, 15, 30, etc)

• Generally if user is served more than one ad within the period, the last ad served “receives” credit.
“View Through” Approach Example / Challenge

Person B is surfing web and Website Banner ad is served (which she did not notice). She does not click.

Tracking Cookie is placed on PC.

Within 15-Day Cookie window, Person B sees ad on TV and, as a result, books on Website.

Banner ad will take 100% credit for revenue – that was largely inspired by TV.
Paid Search Often Measured via “Last Click Through” Approach

However, it’s difficult to measure “Incremental ROI”
“Click-Through” Approach Example / Challenge

Person A reads a Banner Ad and learns of an enticing hotel promotion. However, does not book yet.

Two days later, person A sees hotel ad on TV and remembers that she wants to book offer she saw on Banner Ad.

Person A goes back to PC to book, but does not remember Hotel website and uses Search to navigate.

She clicks on website’s Paid Search ad and finally books.

While Banner Ad “Introduced” Offer (enticed buyer), and TV reinforced, Paid search received the 100% of the credit.
Online Display & Search

Based on “tracked” approaches……..

$ From Online Banner Campaigns + $ From Search (SEM and SEO) = ~ 102% of Online Revenue
Given these challenges, in order to better understand the incremental impact of Media, Choice engaged in Media Mix Modeling.

Media Mix Modeling – A statistical approach geared to isolate and quantify the impacts of marketing levers and other factors (e.g., gas prices, competitive media) on revenue/bookings.

Variability in the data allows us to understand which elements are contributing to the increase in incremental bookings

\[
\text{Bookings}_t = \text{Constant (or Y-Intercept)} + b_0 \cdot \text{Choice Scale}_t + b_1 \cdot \text{Category Demand}_t + b_3 \cdot \text{Relative Pricing} + b_4 \cdot \text{TV Advertising}_t + b_5 \cdot \text{Print Advertising}_t + b_6 \cdot \text{Search}_t + b_7 \cdot \text{Banner Ads}_t + b_8 \cdot \text{Radio Advertising}_t + b_9 \]

………..
Media Mix Modeling – Provides Insight on “Incremental” ROI

- While substantially below “tracked” ROI – TV, Search and Online Banners generate positive ROI and drive incremental business to Choice.
- This understanding allows Choice to shift more investments to channels with higher Incremental ROI.
Media Mix Modeling – In-Channel Optimization

- Using “View-Through” Measurement Approach, Ad Networks reported the highest ROI.
- MMM demonstrated that higher cost endemic advertising generated a significantly higher Incremental ROI.
Online Banners are significantly more effective at generating incremental bookings when run in conjunction with TV advertising.

This insight is impactful for media planning and scheduling.
Implications for you

- Offline media can play a critical role in driving results as well as improving the performance of online media – be careful about shifting away too quickly.

- Despite all the available data and reporting, today online advertising can be difficult to measure.
  - It is important to understand both measurement nuances and nature of media and placements – do results make sense?

- MMM is only one analytical technique to better understand incremental lifts associated with advertising -- particularly a strategic high level view.

- Other analytical techniques such as A/B testing, digital attribution modeling and more can provide meaningful insights depending on your challenge or question.
Omni-channel consumer understanding

eMetrics Summit
October 20, 2011, NYC
Progression of Cross-channel optimization

- Managing and Optimizing Channel Performance
- Develop cross-channel predictive models
- Focus measurement and action on consumer journeys
Paint omni-channel picture of brand-consumer interaction

*How can each consumer-interacting channel work with others to improve results?*

*Tailor communications pathways for each consumer*
Remember this?
Data collection is the starting point... and we are well positioned within ‘digital’ space.
Audience buying is the first step, and many companies already do that.
Already started finding and messaging specific customers based on their behavior

**Case Study**: Luxury CPG Retailer

**Goal**: Identify specific prospects who exhibit product association and category behavior to target them through display and CRM channels for spring holiday campaign

**Approach**:
- Leveraging proprietary online behavior data identify specific consumers with affinity to category and product in particular
- Using a unified data mart and custom-built decision engine serve online video and banner advertisements, in concert with e-mail communications and tailored website experience
- Link to offline channel performance using in-house POS systems and loyalty databases

**Results**:
- Significant Improvement in Brand Metrics
  - Brand awareness increased by 23%
  - Brand favorability increased by 25%
  - Increased perceptions of quality (20% increase vs control), taste (18% increase) and breadth of product line (9.5%)
- Improvement in both short- and long-term sales measurement
  - 370 catalogue requests, generating potential $15k first year incremental revenue
  - 694 cart configurations
- Overall Cost: $150k
Questions
Thank You!