Wharton Interactive Media Initiative
Research Opportunity
INTRODUCTIONS

Heather Tepper
Director, Marketing Intelligence

Paul Wezner
Senior Analyst, Marketing Intelligence

Steve Ennen
Managing Director, Wharton Interactive Media Initiative

Eric T. Bradlow
K.P. Chao Professor
Professor of Marketing, Statistics, and Education
Vice-Dean and Director, Wharton Doctoral Programs
Co-Director, Wharton Interactive Media Initiative

Peter S. Fader
Frances and Pei-Yuan Chia Professor
Professor of Marketing
Co-Director, Wharton Interactive Media Initiative

Elea McDonnell Feit
Research Director, Wharton Interactive Media Initiative
WHARTON INTERACTIVE MEDIA INITIATIVE

• Brings a passionate data-driven perspective to media businesses (content distribution and information acquisition).

• Distinguishes itself with a tight focus on the interaction between content provider and user, capitalizing on the wealth of individual-level data that is exploding at the crossroads of commerce, technology, and entertainment.

• Is dedicated to bringing world-class research rigor to better understand these complex interactions in order to drive new business strategies and tactics that will reshape the media landscape.
WIMI RESOURCES FOR RESEARCHERS

• Research opportunities with corporate partners
• Data warehousing and preparation for modeling
• Research funding
• Promotion of research results among academics
  o Conferences
  o Working paper series
• Promotion of results & methods among practitioners
  o Ongoing updates for corporate partners
  o Conferences
  o White papers
  o On-site tutorials and seminars
Very big goal... Transforming the Nature of Marketing.

Years working towards it.

500+ Employees.

4500 Client projects since 1993.

100+ Awards recognizing our efforts in 2005-2009.

7 Integrated skill sets.

65+ Clients on our roster.

2007, 2009 We were named a Web Design leader.

6 Places we call home - SFO / LA / DET / TOR / NYC / LON
## BACKGROUND

### ORGANIC CLIENTS

**Automotive**
- Jeep
- Dodge
- Chrysler
- Mitsubishi

**Retail**
- Nike
- Estée Lauder
- Martha Stewart
- Coach
- Vogue
- Armani Exchange
- Ethan Allen

**Finance**
- Bank of America
- RBC
- WaMu

**Consumer Electronics**
- Sony
- Samsung
- NetApp
- Geek Squad
- Intel

**Entertainment**
- Warner Bros.
- 20th Century Fox
- iVillage

**Travel**
- Choice Hotels International

**CPG**
- Kimberly-Clark
- P&G

**Energy**
- Hess
ORGANIC DEVELOPED AND MANAGED A COMPLETE DIGITAL MARKETING STRATEGY FOR THE CLIENT, A NEW CAR MANUFACTURER

Display advertising on media sites

Sponsored search

Shopping sites

Advertiser sites
Organic seeks a data-driven understanding of how the digital advertising that a particular user is exposed to affects the conversion of that user.

Potential research questions include:

- How should a successful conversion be attributed back to the different ads a user saw?
- Is seeing an ad on a particular advertising site (or sequence of sites) more likely to result in conversion?
- What is the relative contribution of display advertising and search advertising to conversion?
- How long does the effect of impression or click last?
- How should digital advertising campaigns be structured to maximize conversion?
DATA

DIGITAL ADVERTISING “PATHS” FOR NEW CAR SHOPPERS (HYPOTHETICAL)

Day 1
- View Ad Edmunds.com
- View Ad CNN.com

Day 6
- View Ad CNN.com
- View Ad KBB.com
- View Ad CNN.com
- Click-through @ CNN.com

Day 20
- Click-through @ Google
- Page view at advertiser site
- “Conversion” at advertiser site

User 1
User 2
User 3
### EXAMPLE USER PATH

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<tr>
<th>user_id</th>
<th>date</th>
<th>site_ID</th>
<th>event_type</th>
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<td>28JUL2009:12:09:13</td>
<td></td>
<td>advertiser site activity</td>
</tr>
</tbody>
</table>
### AVAILABLE FIELDS

#### Display advertising impressions
- user
- date & time
- advertiser organization (i.e., brand)
- media buy name
- site where ad was displayed
  - (28 sites)
- user’s country, state & area code
  - (based on IP)

#### Click-throughs
- user
- date & time
- advertiser organization (i.e., brand)
- media buy name
- site where ad was displayed
- ad id number
  - (no info on ad content)
- user’s country & state code
  - (based on IP)

#### For each activities at the advertisers site (including conversions)
- user
- date and time
- type of activity
  - “conversion” or “success” activities
    - search inventory
    - find a dealer
    - build & price
    - get a quote
  - other activities
- user’s state & area code (based on IP)
- whether the conversion occurred in the same session as a click-through
DATA

• Users were drawn at random from all observed users.
• Users are observed from June 8 to August 23.

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Users</td>
<td>3,239</td>
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<tr>
<td>Average number of activities observed for each user</td>
<td>9.36</td>
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<tr>
<td>Display ad impressions</td>
<td>51,521</td>
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<td>Display click-throughs</td>
<td>387</td>
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<tr>
<td>Search click-throughs</td>
<td>883</td>
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<td>Success events</td>
<td>21,060</td>
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<tr>
<td>Number of users that have and impression, a click-throughs and activities on the advertisers website</td>
<td>560</td>
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THERE IS WIDE VARIATION IN EXPOSURE AND RESPONSE

Impressions by User

Display Click-Throughs by User

Conversions by User

# of Impressions

# of Click Throughs

# of Conversions
DATA

USERS ARE EXPOSED TO BOTH SEARCH AND DISPLAY

Display
Click-through
6.6% of users

Search
Click-through
18.3% of users

1.5%
**DATA**

**ADVERTISING EXPOSURE CAN BE TRACKED TO SPECIFIC SITES**

<table>
<thead>
<tr>
<th>Site</th>
<th>Impressions</th>
<th>Click-Throughs</th>
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<td>MSN DRIVEpm</td>
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<table>
<thead>
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<tr>
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MANY USERS ARE OBSERVED OVER A SHORT TIME (<1 DAY), HOWEVER, THERE ARE SUBSTANTIAL NUMBERS WHO ARE OBSERVED OVER DAYS OR WEEKS
NEXT STEPS

TO PURSUE THIS RESEARCH OPPORTUNITY:

• Submit a brief proposal to efeit@wharton.upenn.edu by June 15, 2010
  o Research team
  o Objectives & contribution
  o Proposed methods
  o Timeline
  o Potential for managerial insights & impact
  o Preferred data format
  o Funding requests (if any)

• WIMI and Organic will evaluate the proposals and choose a team

• Clean data can be in your hands by the end of June!
NEXT STEPS

THERE ARE MANY OTHER WAYS TO GET INVOLVED

• E-mail efeit@wharton.upenn.edu to get information about:
  o Future Research Opportunities
  o Future Calls for Proposals
  o Other ways to get involved with WIMI

• MSI/WIMI Conference on Modeling Multichannel Consumer Behavior
  o December 9-10, 2010 at Wharton

• Sign up for the WIMI mailing list at www.whartoninteractive.com
More About Organic
WHAT DO WE MEAN BY MARKETING INTELLIGENCE?

We listen and we watch. We find insight by observing behavior in data and real life interaction. We look in the details to identify habits and transform them into opportunities. This drives our ideas.

The Organic methodology yields a **PREDICTIVE** approach

- **Holistic** analytics approach
- **Maximize** marketing performance
- **Insights** that are data driven
- **Custom ROI models** that drive business results
OUR APPROACH

Econometric Modeling & Media Optimization
- Sales predicting
- Media mix optimization

Online Behavior Analysis
- Utilizing external and internal data sources for key online activity and market trends

Reporting Infrastructure
- Performance Management System (weekly reports, monthly reports, etc)

Site Testing – (Website Efficiency)
- Demographic/Psychographic messaging on website
- DMA targeting (on and off site)
- A/B Testing of messaging, look & feel, content, targeting, etc
- Multivariate Testing

Consumer Sentiment Tracking Survey
- Conduct quarterly consumer quantitative survey (through CY2010)
- Reporting & Analysis
  - Consumer brand sentiment
  - Site Usability
Continuous improvement yields optimization

- What is the value of every marketing dollar spent?
- What will I get in return for each dollar?
- Where is the best place to spend each dollar?