

Case Study: Measuring Online Advertising Effectiveness

A New Approach to Academic-Industry Research

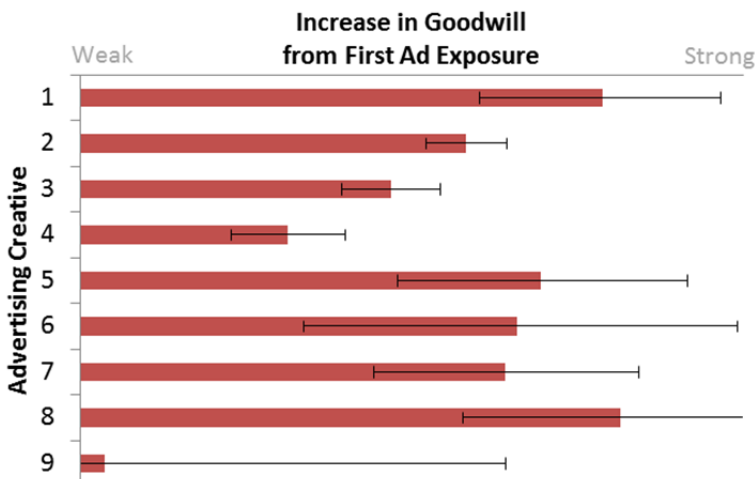
In 2010-2011, WCAI worked closely with Organic, a digital ad agency owned by WCAI Corporate Partner Omnicom Group, to sponsor a set of research projects focusing on Online Advertising Effectiveness. This project was the inaugural WCAI Research Opportunity, an innovative process for fostering academic-industry research which helps companies understand their own business issues more deeply and benefit from the insights of top faculty from marketing, computer science, information systems and statistics.

The program centered on an example data set provided by Organic that tracked the advertising exposures and subsequent conversions of more than 6,000 individual web browsers. Five research teams from top institutions were awarded access to the data based on their proposals for creating completely new analytical approaches for measuring advertising effectiveness.

How to Select Creatives and Time Delivery

One of the research teams, Professors Michael Braun (MIT) and Wendy Moe (University of Maryland) developed a new model for online ad effectiveness that:

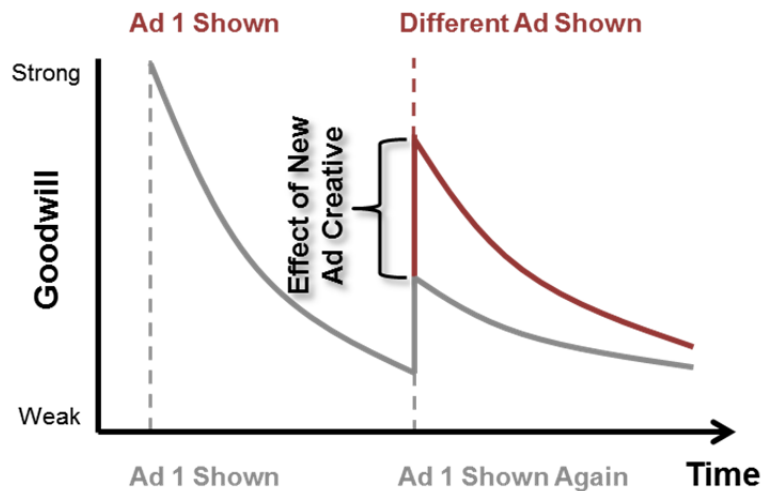
- Measures the impact of **different ads** (creatives) within a campaign
- Measures the impact of **ad delivery timing**
- Measures how individual creatives and timing impact **individual viewers**, uniquely



Integrating Wear-Out and Restoration

Rooted in past advertising research, the Braun and Moe model combines, for the first time, three well-established advertising effects:

Goodwill: Advertising affects a person's long-term sentiment toward a company, and that effect is at its peak when the ad is shown, but then fades with time.



Wear-Out: Repetition of a single ad creative makes it less effective. If you keep seeing the same ad, it becomes less effective each time you see it.

Restoration: Taking a break from redundant ad exposure reverses wear-out. If you don't see an ad for a long time, when you finally see it again, it is more effective.

Braun and Moe found substantial wear-out and restoration effects in Organic's data, suggesting that ad agencies need to account for wear-out and restoration when deciding which ad to show a particular user when the opportunity arises.

Putting Research to Practice

While Braun and Moe's initial analysis focused on the data set provided by Organic, the model can be re-applied to other online advertising campaigns to identify the most effective ads and to plan the sequence of advertisements that each individual should see. The next step in the research process is to integrate the model into commercial software to estimate wear-out and restoration for new campaigns.