

Validating the Combined Approach to Online Reach Prediction

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Introduction

In the last year, few online advertising topics have attracted as much attention as the introduction of traditional planning metrics to online media campaigns. Brand marketers can now directly compare the effectiveness of online and offline campaigns, and make more consistent data-driven decisions about how to allocate marketing dollars across advertising media.

The publicity about online reach prediction has focused on the effectiveness of two available sources of online data: user-centric measures (UCM) and server-centric measures (SCM). Each has strengths and weaknesses. User-centric data—which is offered by syndicated panel companies such as Nielsen//NetRatings and comScore—provides detailed demographic profiles for a limited number of Internet users. Using user-centric data exclusively allows advertisers to immediately interpret demographic information, but usually overstates actual reach—the cost of not being able to identify the high-frequency users who consume a disproportionate number of impressions. On the other hand, server-centric data—which is provided by third-party ad serving companies—gives a complete picture of impression delivery for advertising campaigns, but does not tie those impressions to detailed demographic information.

In March 2002, the Advertising Research Foundation recommended developing a model for online reach prediction that uses both user- and server-centric data in the belief that the strengths of each would offset the weaknesses of the other. Earlier, in December 2001, Atlas had released the Atlas GRP & Reach Forecaster, patent pending, a predictive tool that combines user- and server-centric data to forecast GRPs (Gross Rating Points), TRPs (Targeted Rating Points), reach, frequency, cost per point, and marginal cost for online media buys. The user-centric data is provided by comScore Media Metrix, while the server-centric data comes from a comprehensive repository of information derived from billions of ads served with the Atlas Digital Marketing Suite. All other commercially available online reach forecasting tools (such as WebRF from Nielsen//NetRatings) exclusively use user-centric data.

The goal of this study is to quantitatively test for the first time whether combining user- and server-centric data is a valid approach to online reach prediction.

Methodology

Whether in offline or online arenas, reach forecasts are estimates. The usefulness of any methodology depends ultimately on the directional accuracy of its estimates, not on its ability to generate unassailably correct numbers. For this study, we focused on testing the validity of combining UCM and SCM to provide directionally correct estimates of reach for online media campaigns.

No More Guesswork

This study confirms that advertisers can confidently use a combination of user-centric and server-centric data to forecast online reach of websites in a media plan.

To start, we used the Atlas GRP & Reach Forecaster to estimate the reach for 327 online media buys of varying impression volumes across 77 different websites. These buys took place over a six-month period before this study. After completing the campaigns, we then calculated the actual reach of the buys for comparison by using the Atlas Suite's reach and frequency reports.

We then performed a standard statistical analysis: We calculated the square correlation coefficient (known as R^2) for pairs of pre- and post-campaign reach numbers to analyze the forecasted and actual reach figures. The R^2 statistic is commonly used to measure the usefulness of a model. The value of R^2 ranges from 0 to 1, with 0 indicating no correlation between two numbers and 1 indicating a perfect linear model fit between two numbers. The higher the R^2 , the more accurate the model is at prediction. Thus, a model with an R^2 of 0.8 is twice as useful as a model with an R^2 of 0.4.

What We've Learned

Our study demonstrates that combining user-centric and server-centric data is an effective way to predict the actual reach of an online campaign. As you can see in the chart below, the data predictions made by the Atlas GRP & Reach Forecaster are highly correlated to the actual reach. The R^2 for the entire 327 buys is 0.83, which indicates that the Atlas GRP & Reach Forecaster captured 83% of the variance in reach. In other words, the Atlas GRP & Reach Forecaster provides good directional reach estimates using a combination of user-centric and server-centric measures.

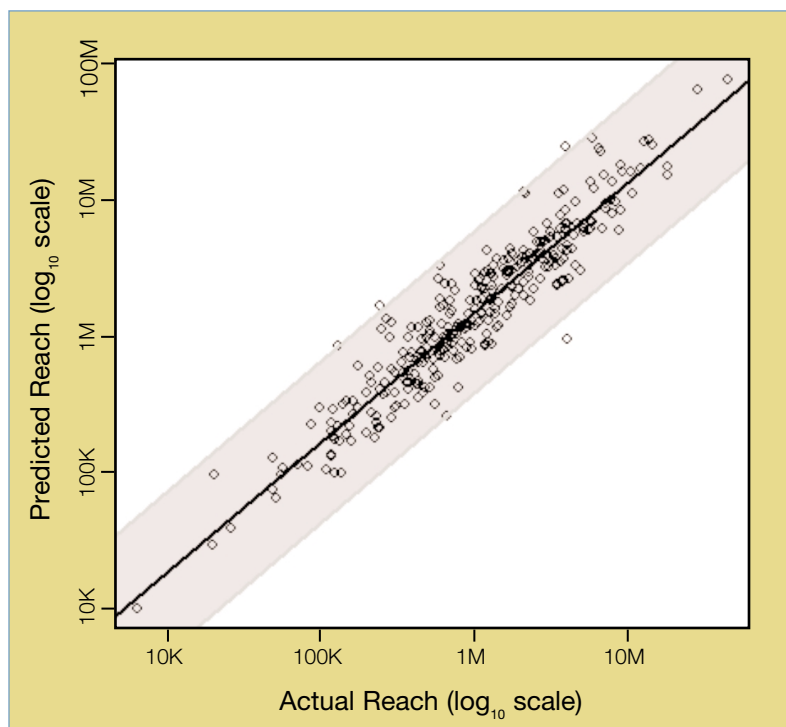


Figure 1: Actual Reach vs. Predicted Reach

The chart depicts the strong correlation between the 327 pairs of predicted reach (vertical axis) and actual reach (horizontal axis). The predicted reach numbers were forecasted using the Atlas GRP & Reach Forecaster. The actual reach numbers were calculated after the campaigns were completed. The closer the points are to the black line, the stronger the directional accuracy of the estimates.

What This Means for Advertisers

This study shows that advertisers can use a combination of user-centric and server-centric data to reliably assess the tradeoffs between websites in a media plan and to confidently integrate a combined approach for reach prediction into their online media planning. Until the introduction of this approach, the industry relied on syndicated panel data and guesswork to make strategic decisions. Today, media planners can use the Atlas GRP & Reach Forecaster to allocate budget across websites and balance maximum reach with effective frequency levels.

In addition, these findings suggest that advertisers are empowered to measure and optimize their online campaigns based on reach and frequency. What's more, any advertiser using a third-party ad server can re-create this precise study with any of their campaigns. Third-party ad serving technology enables granular reach and frequency analysis at the site, creative, and unduplicated campaign level. Post-campaign analyses reveal the impact of over-delivery, uneven delivery, frequency capping, targeted buys, and even duplication across sites. With these insights, advertisers can build a knowledge base and refine their forecasts to improve the effectiveness of their online marketing dollars.

To date, this study is the only published research that tests the validity of an online reach and forecasting methodology. The market should expect to see similar studies from other solution providers to validate their methodologies.

About the Atlas Institute

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