USER-INITIATED INTERACTIONS WITH ADS ARE LINKED TO **BETTER PERFORMANCE** OF DIGITAL ADVERTISING

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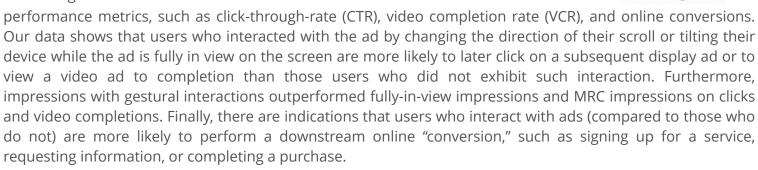
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In the past few years, **"attention" measurement in digital advertising** has emerged as a means of better understanding the impact of online advertising on consumer behavior. In particular, attention is believed to be correlated to downstream KPIs such as online conversions. However, "attention" is often defined as a combination of the standard passive viewability metrics, such as time-in-view, share-of-screen, etc. While better [viewability can improve ad performance](), it still only represents the user's opportunity to be influenced and doesn't capture the users' interactions with the ad.

A logical extension of the now ubiquitous viewability metrics is the measurement of direct user interactions with ads while they are on the screen. These [gestural attention signals](), such as scrolling and tilting the phone, detect the user-initiated interactions with the content while the ad is on the screen. Gestural signals appear to provide a more powerful and nuanced means of understanding attention than viewability alone.

We recently performed an analysis of over **100 campaigns that ran on the Yieldmo Marketplace** to better understand the relation between gestural data and standard advertiser performance metrics, such as click-through-rate (CTR), video completion rate (VCR), and online conversions. Our data shows that users who interacted with the ad by changing the direction of their scroll or tilting their device while the ad is fully in view on the screen are more likely to later click on a subsequent display ad or to view a video ad to completion than those users who did not exhibit such interaction. Furthermore, impressions with gestural interactions outperformed fully-in-view impressions and MRC impressions on clicks and video completions. Finally, there are indications that users who interact with ads (compared to those who do not) are more likely to perform a downstream online "conversion," such as signing up for a service, requesting information, or completing a purchase.

The cost-adjusted analysis of the same data showed that the impressions with user-initiated interactions do not require higher CPMs, so the increased CTR and VCR also translate into decreased cost-per-click (CPC) and cost-per-completed-view (CPCV).

Better Performance Following User-Initiated Interaction

85%+ of campaigns
showed a statistically significant improvement in CTR, VCR, or conversion rate among users with a user-initiated interaction on a preceding ad

Because we wanted to understand whether the gestural signals indicate future user behavior, we identified users (by their browser cookies) exposed to a first ad and then to a second ad in the same campaign. Depending on the type of the campaign (display or video), we computed the CTR or VCR among users who did and users who did not have a user-initiated interaction on a prior impression within a campaign. We used all available impressions for campaigns with conversion events since, to be attributed, the conversion has to occur after the impression.

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PERFORMANCE METRIC	% OF CAMPAIGNS WITH SIGNIFICANTLY HIGHER PERFORMANCE
CTR	85%
VCR	87%
Conversion Rate	89%

In at least **85% of campaigns**, the performance metric was significantly higher for the users who previously interacted with an ad than those who did not.

User-Initiated Interactions Outperform Viewability

Impression with user-initiated interactions have on average than
60% higher CTR
impressions that are MRC viewable

We also examined whether the user-initiated interactions outperformed the standard viewability metrics. For each display campaign, we compared the CTR of impressions with gestural signals ("Interaction") to the CTR of impressions that (a) had at least one pixel in view ("Exposed"), (b) were fully in view for any amount of time greater than zero ("Fully-in-View"), (c) were MRC-viewable impressions ("MRC-viewable"), or (d) had any number of pixels in view for a period of time within a predefined range, e.g., between 2 and 3 seconds ("Time-in-View"). For completeness, we also compared the CTR of impressions with gestural signals to the CTR of impressions that did not have these signals ("No Interaction"). Note that Exposed impressions are all impressions included in the analysis since we filtered out impressions that were not in view at all (see Methodology Notes below).

IMPRESSION METRIC COMPARISON	MEDIAN INCREASE IN CTR FOR IMPRESSIONS WITH INTERACTIONS
Interaction **vs.** No Interaction	85%
Interaction **vs.** Exposed	65%
Interaction **vs.** Fully-in-View	67%
Interaction **vs.** MRC-viewable	60%
Interaction **vs.** Tim-in-View ranges	38-110%

Across campaigns, impressions with user-initiated interactions had a higher CTR by the median amount shown in the table above. For example, on average, impressions with user-initiated interactions had a 67% higher CTR than impressions that were fully-in-view.

Campaign Optimization Driven by Attention Data

The relationship between gestural data signals and campaign performance, especially the relation between user interaction with the ad and the subsequent user actions, allows us to effectively use attention metrics in automated AI-driven campaign optimization. For example, attention optimization was able to help a top tech brand increase the CTR on their campaign by 54% and significantly exceed the brand's benchmark for the landing page view rate. In another example, our campaign optimization allowed a top CPG brand to lift the VCR to an all-time high of 79%.

Conclusion

In our analysis, we wanted to quantitatively examine the relationship between gestural attention signals and standard digital advertising performance metrics, namely, CTR, VCR, and conversions, across multiple advertisers and campaigns. The results showed a substantial positive association between gestural signals, (i.e., user-initiated interactions) and the advertiser KPIs. In particular, clicks, video completions, and conversions are significantly more likely to occur among impressions and users that showed an interaction with the ad than those that did not have such interactions. This effect goes above and beyond viewability, without increased cost. Furthermore, attention signals prove effective in improving advertiser KPIs when used to optimize campaign performance.

Methodology Notes

We examined a data set consisting of over 100 display and video advertising campaigns from multiple advertisers with CTR, VCR, or conversion rate as their stated KPI. We analyzed each campaign separately and summarized the results across campaigns. All impressions included in the analysis were filtered for having at least one pixel in view. To determine whether the KPI of the impressions that had user-initiated interactions was significantly higher than that without user-initiated interactions, we applied the Chi-square test at a 0.01 significance level.

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