VOLUME I

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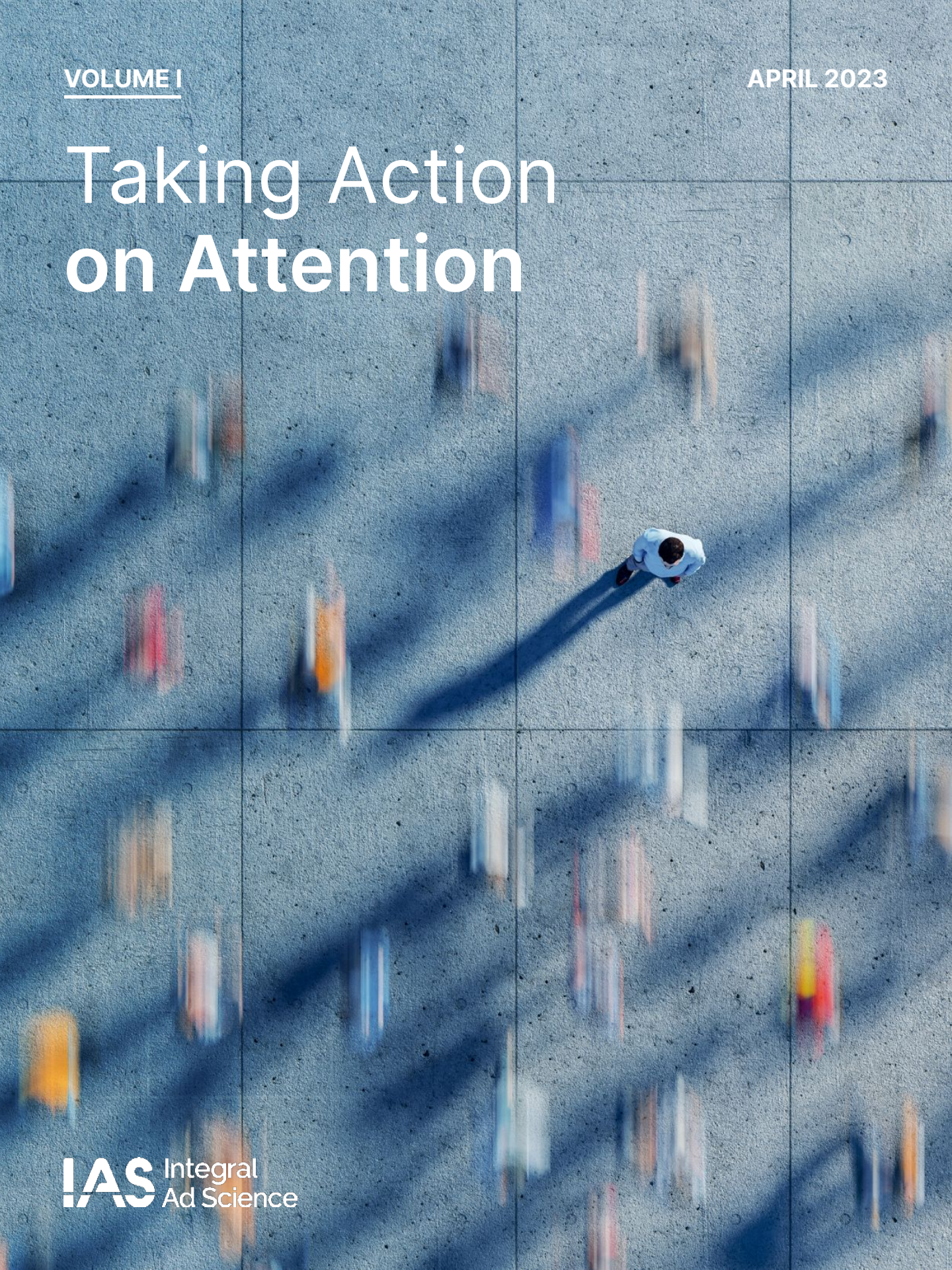
Taking Action **on Attention**



IAS Integral Ad Science

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EXECUTIVE SUMMARY

Attention is one of the most complex and widely discussed topics in digital media. Defining it has proven to be difficult, with marketers across the industry often divided on how to characterize and fully harness attention. But industry experts unanimously agree that harnessing attention is pivotal to executing a successful advertising campaign.

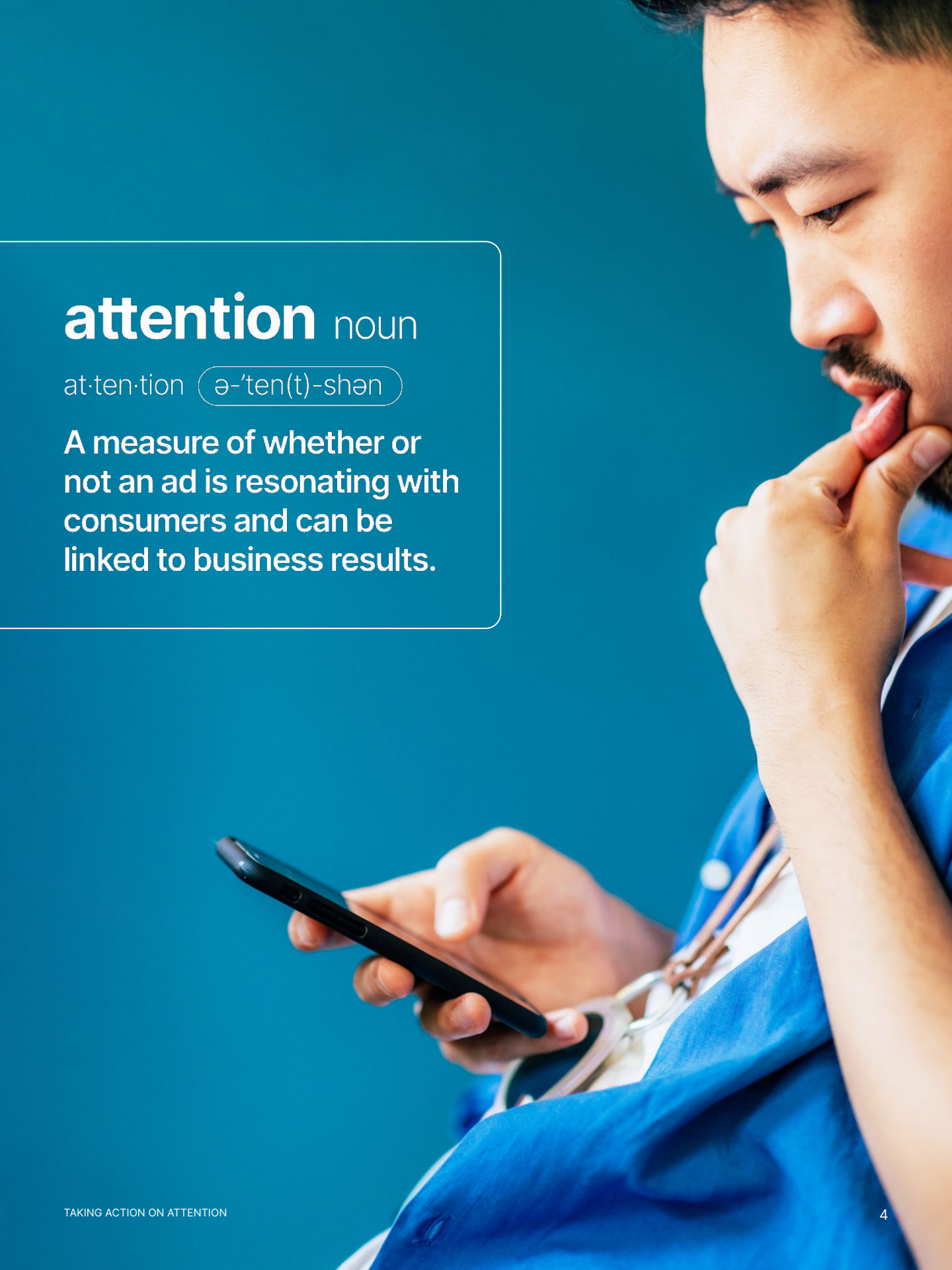
Between content-oversaturation, cookie deprecation, and other challenges across digital media, Integral Ad Science (IAS) saw a need to develop a methodological point-of-view that combines the deeply human aspect of attention with evidence-based media signals.

In early 2022, IAS's media research team set out to test the hypothesis: **Does media quality lead to greater attention?** We began testing if core media quality metrics, like viewability and brand safety, lead to higher consumer attention — and we found that to be true. The team followed this finding by testing if contextual relevance has an impact on attention. Once that was proven to be accurate, our research team leveraged eye-tracking technology to understand how consumers interact with ads with varying degrees of media quality optimizations. While eye-tracking data verified that core quality metrics are instrumental in predicting results, holistic insights related to ad density, share of voice, context, and more can show marketers the full picture of media quality needed to maximize attention.

We further proved this model utilizing our industry-first Total Visibility™ product, which provides us with actionable advertiser performance data for customers who want greater transparency into their programmatic buys. Using that data, we were able to find patterns, like which types of impressions are likely to lead to a conversion and which are not. These patterns led us to create a differentiated Attention model that can **predict the propensity of whether or not an impression will lead to a result.**

Throughout this report, we detail five studies that propagate our definition of Attention and its foundation in business results. With research based on millions of data signals combined with Total Visibility™ and machine-learning models, our Attention model is based on three key signals that predict the likelihood of an impression leading to a result: Visibility, Situation, and Interaction.

We further illustrate how both the buy- and sell-side can start optimizing attention now while accurate, scalable attention tools are still being developed. Furthermore, we present the measurement (post-bid) and optimization (pre-bid) tools IAS is currently working on based on our extensive advertising campaign data — and how this will provide marketers with actionable insights they'll need to drive superior results.



attention noun

at·ten·tion ə-ˈten(t)-shən

A measure of whether or not an ad is resonating with consumers and can be linked to business results.

DEFINING ATTENTION

Everyone is talking about attention. While it may seem like a rehashing of engagement, industry research has shown that attention is a much more nuanced and elaborate concept. For example, Google's attention study concluded that the first five seconds of an ad on YouTube are critical. TikTok revealed insights about the importance of creative triggers and shorter content lengths. And the Project Trinity study released by Havas and Teads provided observations on the links between attention and time-in-view and scroll speeds. The nuanced nature of these findings add to the challenge of establishing a single, unified thesis to define attention and the metrics that should be used to measure it.

Through our findings, which included millions of advertising data signals refined by machine-learning models, we concluded that business results, like conversions or sales, must be present in order to determine that attention has occurred.

Furthermore, marketers must take a holistic media quality approach in order to successfully harness attention to reach superior results. Comprehensive media quality measurement and optimization solutions that leverage Visibility, Situation, and Interaction signals are core to driving attention.

IAS's Attention Model

Visibility +
Situation +
Interaction =

Attention → **Results**

- ➔ Brand impact
- ➔ Conversions
- ➔ ROI

Bottom line

Attention is a function of Visibility, Situation, and Interaction and must drive business results.

WHY ATTENTION?

At this time, there's no singular metric that can accurately and effectively monitor attention. However, as we look to the future of digital advertising, the need for a set of metrics to capture the entire picture of attention is crucial, as evidenced by key challenges that marketers consistently face.

Cookie Deprecation

Third-party cookies will soon become obsolete. As browser cookies, along with MAIDs (mobile device IDs), continue to deprecate as a result of industry changes, advertisers, platforms, and publishers are looking to alternative metrics that can act as proxy performance indicators.

Content Over-Saturation

There are more brand and product choices for consumers now than ever before. This fragmentation, while good for the industry as a whole, can make it more difficult for brands to breakthrough with their messages.

Cross-Vertical Competition

For most brands across many verticals, there's a lot of competition. The proliferation of brands across verticals increases the likelihood of message competition among consumers. For example, a CPG brand doesn't just have a handful of other brands competing with the same products — they also have store brands to contend with.

Creative & Copy Advancements

Advancements in digital ad units allow brands to be more creative with their ad copy and design than ever before. A/B testing is an option, but the high cost of this strategy can be a deterrent for marketers, making it challenging to know that messages and creative are breaking through the noise.

THE THREE ATTENTION SIGNALS

Attention can be achieved by a combination of media signals that, when used together, improve campaign effectiveness. Through a holistic media quality approach, marketers can drive results by simultaneously understanding and optimizing toward consumer attention.

Our research team has analyzed millions of data signals to determine that Attention is a function of three key signals — Visibility, Situation, and Interaction. The combination of these signals can predict if an impression is likely to lead to a business result. Our analysis included utilizing our Total Visibility™ data and machine-learning models to tie business results to Attention signals.

Visibility

Visibility signals measure the validity of the impressions being served. These are baseline measures advertisers should optimize first. Without Visibility measures, Attention cannot occur.

Visibility Metrics:

- Viewability
- Time-in-view
- Full screen

Situation

This set of signals describes the environment in which impressions are served. Situation signals measure the number of ads on a page, the percent share of voice (SOV) an ad has on a page relative to other content, and the relevance between the ad messaging and the surrounding content.

Situation Metrics:

- Ad density
- Page orientation
- Brand suitability
- Contextual relevance

Interaction

Interaction signals are indicators of consumer activity in the presence of ads. These signals can help identify human preference, measuring activity like scrolling, interacting with ads, and where the consumer's gaze and fixation is on the page.

Interaction Metrics:

- Scroll
- Volume
- Video player play/pause
- Eye-tracking

VISIBILITY

Viewability | Time-in-view | Full screen

Attention Signal #1

Visibility signals are the key starting points to measuring consumer attention. After all, if an ad isn't meeting basic viewability standards, then it will be impossible to achieve optimal time-in-view or other metrics needed in order to gauge attention.

Research from IAS backs up these claims. In a recently conducted study we administered in partnership with Catalina, we wanted to understand the link between IAS core metrics (including viewability and time-in-view) and in-store sales for a major CPG brand. Our goal was to illustrate how optimizing toward core Visibility signals elevates attention and leads to more results for the advertised brand.

The major CPG brand tripled its return on ad spend (ROAS) thanks to in-view ad placements.

+180%

In-view ads tripled ROAS compared to not-in-view placements, with a 180% increase in incremental ROAS

In another IAS study, we established a goal of understanding how optimizing for media quality correlates to higher attention and results. Through this study, we were able to uncover the impact viewability alone has on attention — and conversions.

Lift in conversion rate for viewable impressions compared to not viewable impressions

+95%

VISIBILITY

Viewability | Time-in-view | Full screen

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Attention Signal #1

Visibility goes deeper than just viewability. This set of signals also determines how long an ad is being viewed — and as we discovered, longer time-in-view isn't necessarily the key to more results through increased attention.

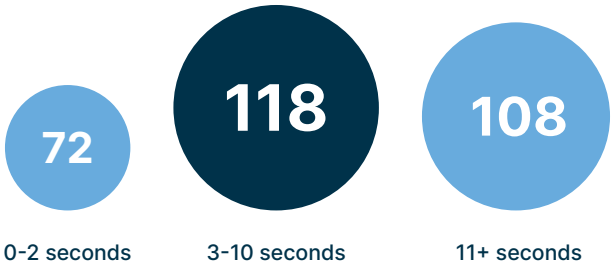
In our Catalina sales study for a top CPG company, we looked beyond viewability on both desktop and mobile to find the sweet spot for marketers to pursue when optimizing their ad campaigns for time-in-view.

There's a sweet spot for ideal time-in-view to drive incremental sales.

3-10s

Ideal time-in-view for driving incremental sales and ROI

Incremental index by time-in-view percentage and sales percentage



This study provided remarkable findings for marketers looking to drive both incremental sales and ROI. While ads that remained in-view for more than 11 seconds drove the highest percentage of incremental sales, it was the ads in-view between three and 10 seconds that hit the sweet spot: they were highest on the incremental index — driving the most ROI for the CPG brand compared to both shorter and longer time-in-view ranges.

These findings suggest that marketers can use an ideal time-in-view range to gain attention and provide the most opportunity to achieve both incremental sales and higher ROI.

SITUATION

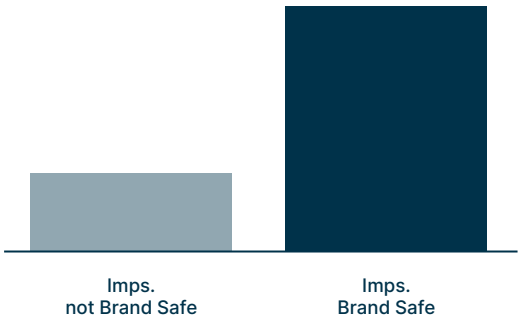
Ad density | Page orientation | Brand suitability | Contextual relevance

Attention Signal #2

The environment in which an ad's impressions are served has an enormous impact on ad performance and consumer receptivity. Consumers seek out content that aligns with their interests and preferences. The single best place for a brand to be is alongside content that matches their ideal consumer's interests.

A broad range of metrics including brand safety, contextual relevance, ad density and more have credible influence on how an ad performs. In the same study that linked media quality to attention and results, we wanted to discover how brand safe situations affect conversion rates on ads. Here's what we found.

Optimizing for brand safety leads to greater conversions...



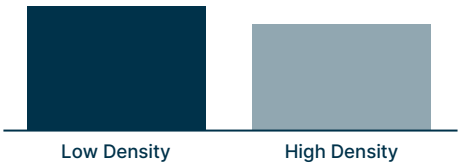
+233%

Lift in conversion rate for brand safe impressions compared to those that were not brand safe

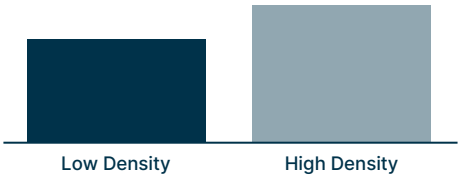
...and maximizing ad density isn't always the answer to higher attention.

Our research shows that ad density has a compelling impact on results as well. Higher ad density can actually *negatively* affect the consumer experience and be the reason for fewer conversions for marketers. We found that low (i.e. below average) ad density on a given page points to both better conversion rates and lower costs per conversion.

Success Rates



Cost Per Conversion



SITUATION

Ad density | Page orientation | Brand suitability | Contextual relevance

IAS Integral Ad Science

Attention Signal #2

Placing ads in contextually relevant environments certainly has an impact on consumers — that's no surprise. In recent research, however, we looked deeper into why context plays such a large role in driving consumer receptivity.

We conducted an experiment in partnership with eye-tracking measurement company Tobii Pro where we tracked eyesight to gauge how much time consumers spent with a display ad for technology brand HP in conflicting content environments. One environment was contextually aligned with the ad, and the other was not.

Memorability and purchase intent skyrocketed among consumers who viewed the ad in the contextually relevant setting, with increases in favorability too.

MEMORABILITY

4x

When unaided by a list, consumers were **four times** more likely to remember HP from an in-context ad

In-context ad 73% MEMORABILITY

Out-of-context ad 18% MEMORABILITY

MEMORABILITY

+25%

Increase in memorability for contextually matched ads compared to unmatched ads

PURCHASE INTENT

+14%

Increase in purchase intent among consumers who viewed the in-context ad

FAVORABILITY

+5%

Increase in favorability among consumers who viewed the contextually relevant ad

INTERACTION

Scroll | Volume | Video player play/pause | Eye-tracking

Attention Signal #3

After evaluating all IAS metrics to measure their impact on results from a multivariate model perspective, we found that **interaction highly influences results** — but the effectiveness differs between display and video.

DISPLAY

+17%

Strong positive correlation between interaction and results for display

VIDEO

+8%

Strong positive correlation between interaction and results for video

KEY FINDING

Some Interaction metrics may negatively relate to results. We found that to be true about volume actions, as engagement here may indicate that the consumer wants to shut the ad off.

The effects on results differed between display and video beyond just Interaction signals. Our research found that nearly all three Attention groups — Visibility, Situation, and Interaction — positively influence results with very minimal negative correlations between these metrics and results.

Most influential display metrics

- IN-VIEW RATE
- AD DENSITY
- AVERAGE TIME-IN-VIEW

+71%

Relative influence

Most influential video metrics

- SCROLL
- FULL SCREEN
- PLAYER ACTED ADS

+41%

Relative influence

KEY FINDING

Interaction is most influential when predicting conversion performance for video ads, while Visibility and Situation are more important for display.

INTERACTION

Scroll | Volume | Video player play/pause | Eye-tracking

Attention Signal #3

Our eye-tracking study provided valuable insight into consumer interaction with ads in differing environments through the use of heat maps. These findings showed that consumers gravitate toward contextual relevance, with attention captured on the display page faster and for a longer amount of time.

Consumers who viewed the in-context ad looked at the ad first and for a longer amount of time than those who viewed the out-of-context ad.

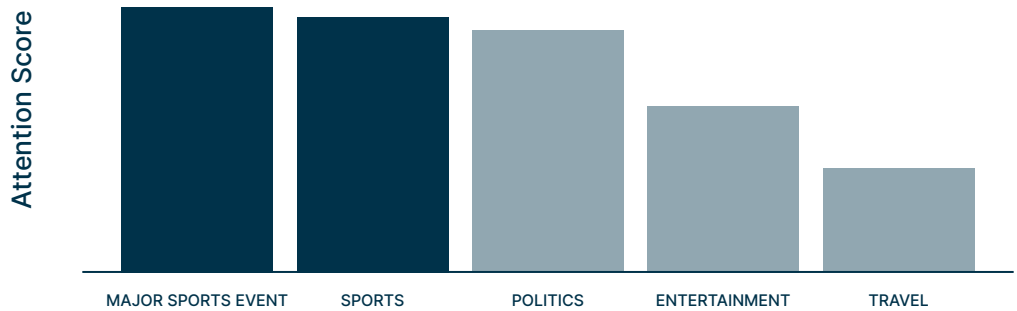
In-context

Out-of-context

In another analysis, we used eye-tracking[1] to dive deeper into the link between context and attention. We tested an ad running in one of the most-watched sporting events across the globe, capturing the attention of over a billion viewers. For this major sporting event, we wanted to discover how both contextually relevant content, like sports, and non-contextually aligned content, like politics, impact attention.

This research determined that URLs with content most aligned to the campaign generate higher attention compared to other content categories.

Attention by contextual category



[1] Eye-tracking measurement determined by Interaction partner data.

TAKING ACTION ON ATTENTION NOW

Advertiser checklist

While tools for scaling attention are still in the process of being developed, we've created a working model that helps advertisers drive campaign performance with consumer attention at the forefront. Our findings show how advertisers can drive and capitalize on attention now. Here are IAS's recommendations.

1

Don't obsess over one metric alone.

Use a personalized suite of metrics to ensure that your campaigns are viewable, brand suitable, blocking invalid traffic, and driving the highest quality impressions. As we saw earlier in this paper, viewability, time-in-view, and brand safety all correlate to drive higher attention.

57% Increase in conversions for viewable & brand safe impressions compared to non-viewable & not safe

171% Increase in conversions for impressions with time-in-view greater than 15 seconds

2

The situation that your ads run in can be a critical driver for success.

Take advantage of capabilities that help ensure your ads are running in safe, suitable, and relevant environments.

+233% **Lift in conversion rate for** brand safe impressions compared to those that were not brand safe

+25% **Increase in memorability** for HP's contextually matched ads compared to unmatched ads

3

Optimize toward supply where ad interaction and engagement are historically higher.

The Interaction Attention signal is most influential when predicting conversion performance for video campaigns, specifically.

Most Influential Video Metrics

- SCROLL
- FULL SCREEN
- PLAYER ACTED ADS

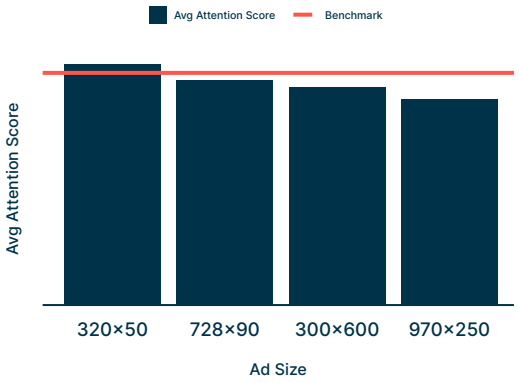
+41%
Relative influence

TAKING ACTION ON ATTENTION NOW

Advertiser checklist

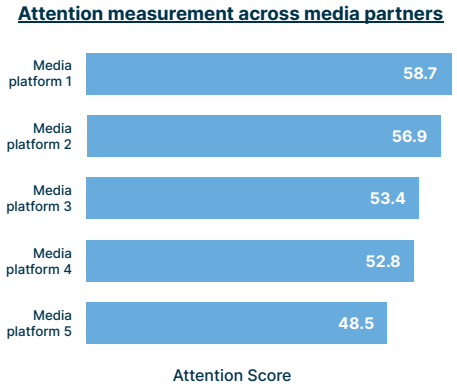
4 Use attention as a tool to learn and optimize messaging executions while developing creative.

We found that size of creative can have an impact on attention. For example, we saw that specific ad sizes yielded higher-than-average Attention scores for a major CPG brand.



5 Start optimizing attention with a test-and-learn approach.

Advertisers can use Attention measurement to evaluate which programmatic partners are driving higher attention. Working to increase attention through the three signals in our model will have an impact on cost and reach, so use tests to inform your brand's most effective strategy.



6 Utilize tools that increase transparency within the programmatic ecosystem so that attention improves with cost efficiency.

For example, by integrating with IAS's Total Visibility™ framework, advertisers can:

- Identify and mitigate supply path and publisher inefficiencies
- Pinpoint problem private marketplaces to make platforms aware of issues they can correct

24%

IAS's Total Visibility™ saves advertisers an average of 24% of budget that would otherwise be lost in the supply chain.

TAKING ACTION ON ATTENTION NOW

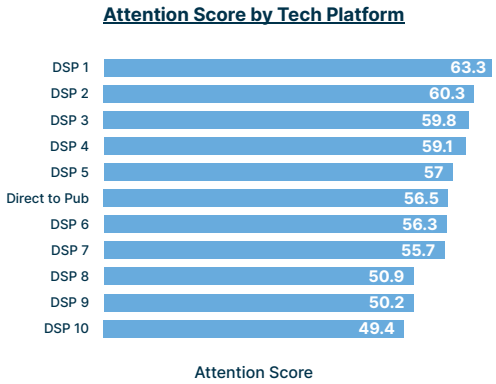
Publisher & platform checklist

Attention measurement and optimization doesn't only benefit advertisers. The supply-side can experience massive benefits too, like new logo growth, client retention, and increased yield by enabling efficient ways for advertisers to capitalize on attention. Here are our recommendations for publishers and platforms.

1

Test DSP partners for performance.

DSPs provide greater ease to advertisers looking for available pre-bid segments that can be used to optimize campaign impressions toward increased attention. In a study conducted with a major CPG brand, we found that attention can vary when comparing impressions across different tech platforms and across publishers.



2

Automate impression delivery and dynamically meet advertisers' specific brand safety requirements.

With the IAS Publisher Optimization solution, a major media publisher significantly reduced brand risk, a key metric within the Situation Attention signal.

-97%

Decrease in brand risk after activating the IAS Publisher Optimization solution

3

Enhance content curation and optimize environments so that viewability rates improve.

Viewability is an essential component of the Visibility Attention signal. In a case study with a major publisher, they were able to split the performance of ad units by device, identify improvement opportunities, and increase viewability across platforms with the IAS Publisher Verification solution.

+20%

Month-over-month increase in mobile app viewability with the IAS Publisher Verification solution

MOVING THE INDUSTRY FORWARD WITH ACTIONABLE ATTENTION

IAS believes in both measurement (post-bid) and optimization (pre-bid) solutions that will help our customers drive higher attention for their campaigns, and as a result, superior results.

Attention today

IAS currently provides a custom report in our Signal UI that features metrics which form the ingredients for Attention scoring. As marketers dip their feet into what attention means for them, they can use this Attention metrics report to understand how components of Visibility, Situation, and Interaction are at play across their programmatic media spend. For example, advertisers can build out tests to compare how viewability, time-in-view, or viewable video quartile rates independently influence their results. Experimenting with how these individual parts of Attention impact performance will better prepare brands to leverage IAS's dedicated Attention scores when they become fully available. Marketers can also leverage IAS's Custom Report Builder to pull individual metrics based on our Attention model to help inform their own campaign performance.

The future of IAS's Attention model

IAS's upcoming optimization tools will allow customers to boost attention and improve campaign effectiveness through actionable data. Using the IAS Attention model, our future pre-bid segments will allow advertisers to confidently optimize ad spend toward the results they deem most valuable.

With an Attention score ranging from 0-100, marketers can work to improve their baseline through precise campaign adjustments, creative testing, and a clear focus on the three Attention signals. IAS's long-term goal is to utilize Attention measurement to score site-level data, which can then be used to curate segments that can be targeted so advertisers can proactively optimize their media dollars toward supply that drives higher attention.

> **More on creative:** The Situation Attention signal includes items like device type, page share of voice, and ad density — all of which can play into the ad creative narrative. Furthermore, the Interaction Attention signal is a strong indicator of human preference, which is directly related to creative performance. With Interaction metrics, such as scroll, volume, and eye-tracking data, advertisers gain insight on human focus, which can provide information on how consumers are responding to one creative over another.

MOVING THE INDUSTRY FORWARD WITH ACTIONABLE ATTENTION

The future of IAS's Attention model

Eye-tracking is slated to be one of the most paramount factors of Attention measurement. As we detailed in this report, eye-tracking is a key component to Interaction, and sheds indispensable light on the deeply human element of attention. IAS is currently working to develop tools that will accurately and effectively track consumer eye movement for better insights into human inclination, one of the most critical pieces of attention.

We also plan to extend our Attention model beyond just the open web for consumers to gauge attention across digital channels. Attention can be directed wherever consumers are — so we're developing pre-bid optimization tools to harness attention across CTV and, later, social.

> **More on the Attention index:** IAS is developing norms from global campaign data to guide our customers to drive business results with attention.

CONTRIBUTORS

Khurrum Malik

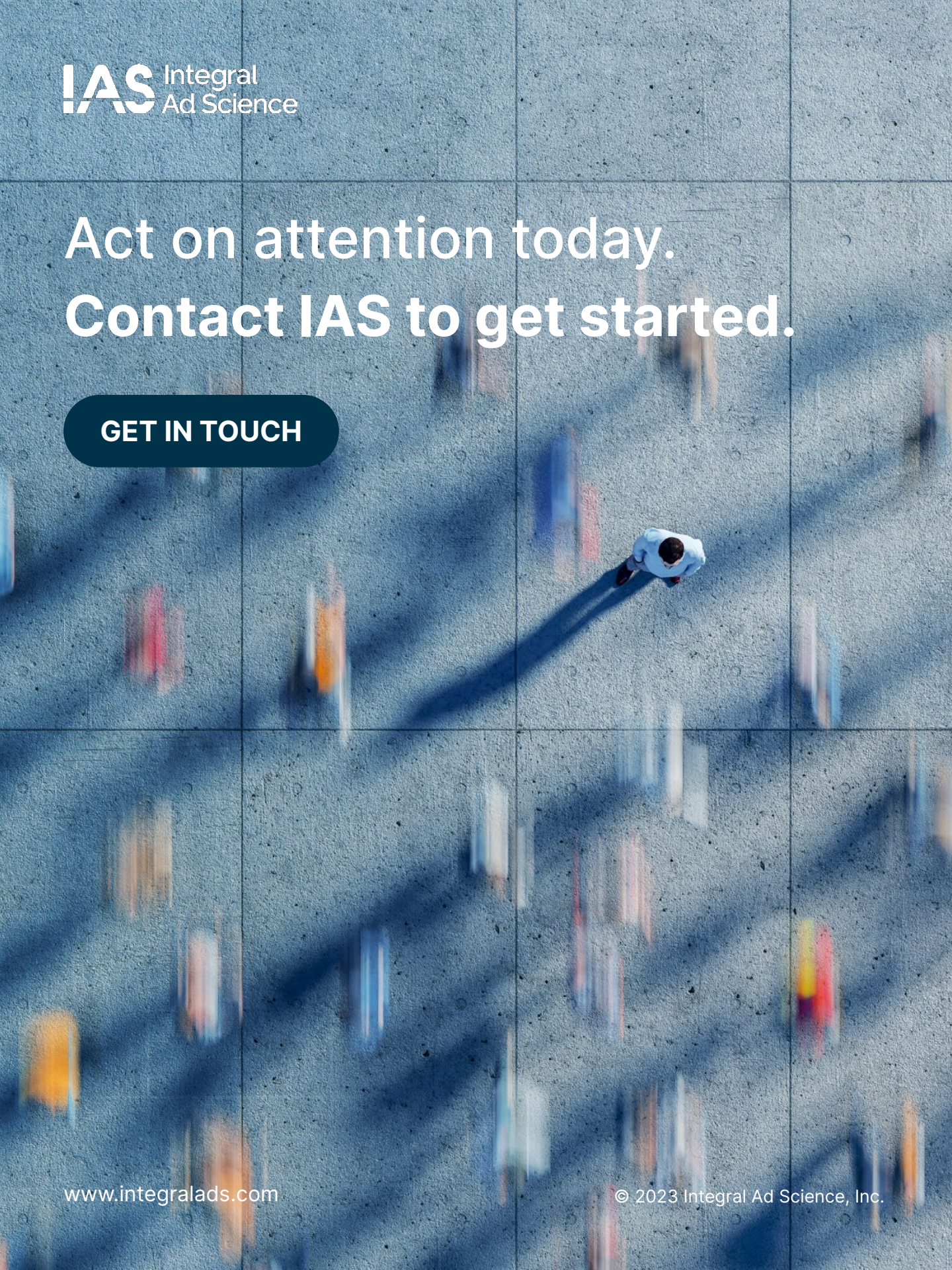
Chief Marketing Officer

Khurrum Malik joined IAS as Chief Marketing Officer in 2022. He is a technology marketing leader with a broad range of experience driving growth for public and private companies. Most recently, Malik was Head of Global Business Marketing at Spotify, where he led business marketing, creative, product marketing, measurement, and analytics teams within Spotify's advertising business. Previously, he served as CMO of Compass, a real estate technology platform, and was Head of Product Marketing at Meta. Malik holds an M.B.A, M.S., and B.A. from the University of Virginia.

Jeremy Kanterman

Vice President, Research & Insights

Jeremy Kanterman joined IAS in 2021, bringing 15 years of digital research leadership including eight years in research roles covering both linear TV and print. Most recently, he was the Senior Director of Ad Effectiveness Research at Yahoo where he helped clients measure the impact of their ad investments. Kanterman is a co-holder of two patents for inventions developed during his time at Yahoo and was a co-inventor of Yahoo's Multi-Touch Attribution solution. He holds an M.B.A from Baruch College's Zicklin School of Business and B.A. from Syracuse University.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