

# Understanding Viewability

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## Programmatic Quality Series

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# 1. What Is Viewability, Anyway?

Ensuring the quality of digital advertising buys is a constant challenge in today's advertising ecosystem. Whether the issue is fraud, brand safety or viewability, marketers need to be sufficiently educated to ask the right questions of their agencies and technology partners. Over the past few years, **viewability** in particular has become a prominent area of focus within the industry—and an ongoing pain-point for marketers, demand-side platforms (DSPs) and publishers alike.

**Viewability is an online advertising metric that aims to measure whether or not an ad has the opportunity to be viewed by a consumer.** For example, an ad that shows up onscreen next to the content a consumer is reading would be considered viewable. However, if an ad loads below the fold on a webpage but the site visitor does not scroll down far enough to see it, that impression would not be viewable.

While the underlying concept is fairly simple, viewability isn't as straightforward as it might seem. The Interactive Advertising Bureau (IAB) and the Media Rating Council (MRC) qualify a display ad impression as viewable if **greater than or equal to 50% of the ad's pixels appear in the viewable space of an in-focus browser tab for at least one second post ad-render.**<sup>1</sup> So that prominent 728x90 leaderboard unit that loads at the very top of a website may ultimately not be viewable if the consumer quickly scrolls further down the page.

As the viewability figures supplied by accredited verification partners below indicate, approximately **half of all ads across digital marketing channels do not have the chance to be seen by consumers.** More specifically, in Q1 2016, Verification Vendor A released global viewability rate averages indicating that **only 48% of U.S. desktop display ads and 41% of U.S. video ads are viewable.** Vendor D published new statistics in its Q2 2016 viewability report stating that on average, **only 41% of mobile inventory is viewable.** With statistics like those, it is no surprise that a recent MyersBizNet survey of advertising and marketing executives revealed that **71% of brand marketers and 70% of media agency digital executives feel that viewability is a top concern.**<sup>2</sup>

In response to advertisers' growing concerns around ad viewability and verification, vendors have invested heavily to develop robust solutions for viewability measurement and optimization. Verification companies such as **DoubleVerify (DV)** and **Integral Ad Science (IAS)** have made significant strides when it comes to ensuring that advertisers understand viewability. They also provide a growing set of tools to help advertisers spend their ad dollars on viewable ad impressions. However, even these emerging optimization tools cannot guarantee that 100% of ads are viewable.

For decades, traditional advertising channels have presented

Verification Vendor	Display Viewability Average Rates	Video Viewability Average Rates	Mobile Viewability Average Rates
<b>Vendor A</b>	48% Overall	41% Overall	N/A
	56% Direct   46% Programmatic	N/A	N/A
<b>Vendor C</b>	52% Overall	40% Overall	N/A
	60% Direct   50% Programmatic	60% Direct   36% Programmatic	N/A
<b>Vendor D</b>	53% Overall	59% Overall	41% Overall
	54% Direct   51% Programmatic	73.7% Direct   47.5% Programmatic	42% Direct   39% Programmatic

challenges when it comes to the concrete measurement of viewability. Advertisers purchased newspaper ads for years with little knowledge of whether or not readers actually made it to page seven to view their advertisement. Television ads were assumed to be 100% viewable. Fast-forward to the digital era, and marketers finally have the promise of technology to measure and understand what percentage of their advertising investments are actually viewable.

The implications of poor viewability extend beyond verification partners to the broader advertising ecosystem. **Advertisers, demand-side platforms (DSPs), publishers and supply-side platforms (SSPs) are all impacted by viewability challenges.**

## Advertisers

Advertisers have the most to lose from poor ad viewability. Brand marketers, in particular, invest significant amounts of budget in digital media buys, and the idea that their advertisements might not be seen at all by consumers is concerning, to say the least. Due to the threat to ad effectiveness and ROI represented by low viewability rates, advertisers have begun pushing for stricter viewability thresholds and guarantees. Some advertisers are reworking media contracts to pay only for **viewable impressions, instead of served impressions**, in an attempt to guarantee that messaging has the opportunity to influence the consumer.

## Demand-Side Platforms (DSPs)

Demand-side platforms (DSPs) are increasingly tasked with developing technical solutions to ensure high viewability. However, **differing creative sizes, variations in viewability rates between viewability solution vendors and inconsistencies between pre-bid and post-bid measurement, even from the same viewability vendor**, all make the process of measuring and delivering on viewability complex.

## Publishers

Publishers are only now fully beginning to understand the impact of poor viewability on their web properties as it relates to revenue loss. Better webpage designs and the use of technologies to enable faster load times have become "table stakes" for publishers hoping to win advertiser budgets.

**As part of improving ad viewability on web properties, publishers will need to consider reducing the number of ads on each webpage.** Such an action—taken to address advertisers' immediate viewability concerns—might result in a potential initial loss of revenue for publishers, but will ultimately help media buyers regain trust in publishers. Eventually, reduced inventory supply paired with increased demand will result in increased prices and increased future revenues for publishers.

## Supply-Side Platforms (SSPs)

Similar to the publishers they represent, **supply-side platforms (SSPs) are facing pressure to take a more prominent role in improving viewability.** Supply-side platforms are typically not seen as responsible for the media quality issues plaguing the ad industry, but the objective of increasing viewability must be shared by all parties in order to ensure success. In an attempt to aid media buying partners, many SSPs have begun to proactively introduce additional viewability signals and curate highly viewable inventory packages to help buyers purchase viewable inventory more efficiently and effectively.





## 2. Viewability Testing Methodology

Recent industry headlines illustrate the confusion that exists around the definition of viewability and what constitutes proper viewability measurement methodology. With these questions in mind, in July 2016 DataXu launched a 14-day test campaign across **desktop display, video and mobile** that was designed to gain insight into frequently asked viewability questions.

**The goals of DataXu's viewability test were as follows:**

- To measure viewability at an aggregate level, exchange level and domain level
- To compare viewability percentages for the same creatives and same placements across different viewability vendors
- To measure viewability rates for campaigns running on flat bids without the benefit of any optimizations

DataXu purchased all desktop display, video and mobile inventory at a flat bid on open exchanges and private exchanges using **prospecting tactics** across 28 different campaign flights. Prospecting tactics are activities in which an advertiser targets prospective consumers who have not yet visited their site. **Retargeting tactics**, in contrast, are activities that target consumers who have previously been to a brand's website.

The test focused on ten publishers. Ad inventory was obtained through a variety of open exchanges, as well as a number of private marketplace deals.

Creatives used during the test were DataXu-branded creatives produced by DataXu's marketing department.

**No optimizations** were applied to any campaigns during the two-week test in order to obtain unbiased results.

All DataXu creatives were run in the United States. All in-view rates contained in this report are based on average U.S. viewability rates published and updated in 2016 by accredited verification vendors.

During DataXu's viewability test, **tags were placed on each creative from three viewability verification vendors.**

All data discussed in this report and depicted in figures and graphs, unless otherwise referenced, is sourced from DataXu's July 2016 viewability test.

*Note: DataXu does not recommend using multiple viewability verification vendors to tag each creative as a best practice. However, for the purposes of DataXu's July 2016 viewability test, tagging each creative multiple times resulted in the most efficient test possible.*

# 3. Viewability By The Numbers

Contradictory opinions on viewability abound, from industry panels and bylines to the discussions between brands, agencies and tech providers. With this report, DataXu hopes to provide a few insights into the world of viewability, as seen through the lens of our test. Here's what we found:

## 1 Viewability Variations Exist, Even Between Accredited Vendors

Marketers have a variety of choices when it comes to viewability verification solution vendors. Industry-leading providers such as DoubleVerify (DV) and Integral Ad Science (IAS) are making significant strides when it comes to ensuring advertisers understand viewability and get the most out of each media investment.

In general, verification vendors align when reporting in-view

rates **on aggregate** across large buckets of supply; however, at the **individual site** level, more significant discrepancies emerge (Figure 1). To demonstrate this aggregate alignment on a consistent set of inventory, DataXu compared the in-view rates reported by each vendor across exchange, publisher and domain levels during the July 2016 viewability test.

At the aggregate level, DataXu's test showed that Verification Vendors B and C exhibited comparable and correlated viewability figures with 5% variation or less. As aggregation transitioned into granularity, however, disparities increased.

**At more granular levels, variations became more apparent, and in one case, reached 21% on a particular domain.**

Based on the results of DataXu's viewability test, Vendor C's measurement consistently showed higher in-view rates than that of Vendor B across all domains. The cause of this variation is likely due to the different methodologies used by the vendors.

### In-View Rates By Exchange, Publisher And Domain

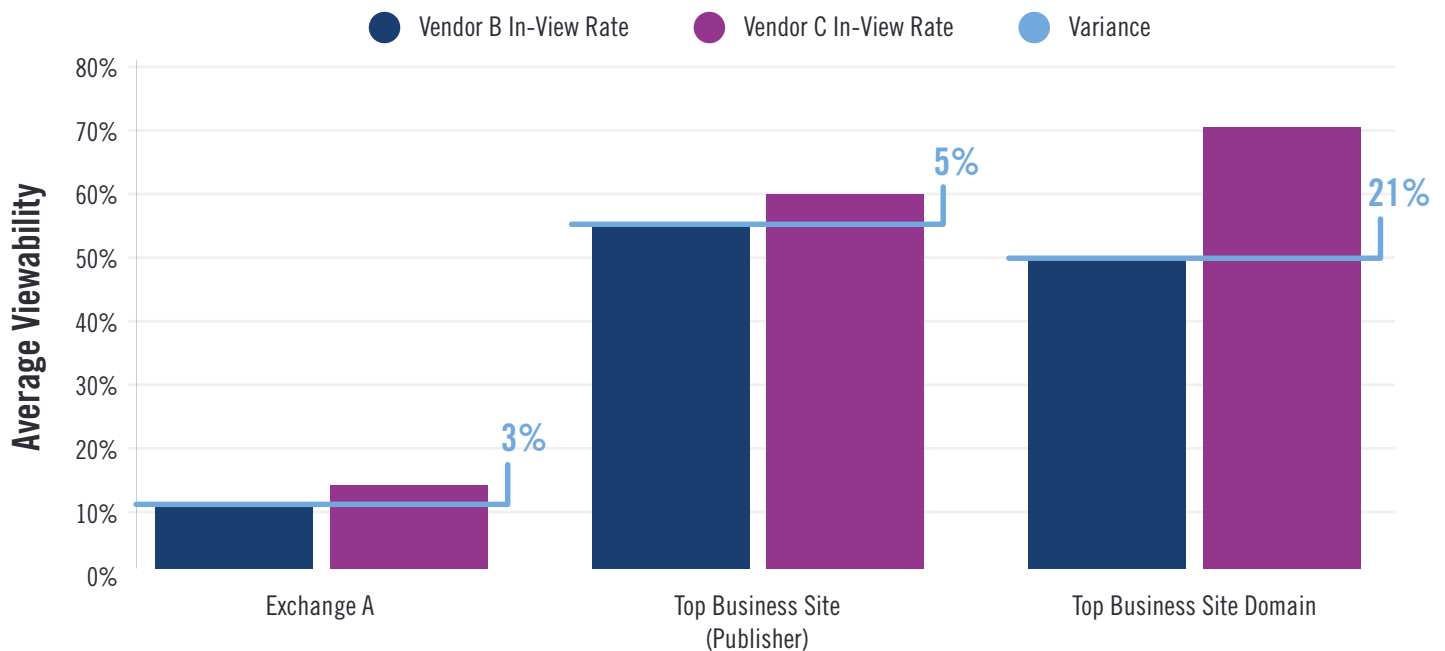


Figure 1. In DataXu's July 2016 test, accredited verification solution vendors demonstrate similar in-view rates on aggregate across large buckets of supply. Variation between vendors tends to increase at the individual site level. One example of such variation is depicted above.



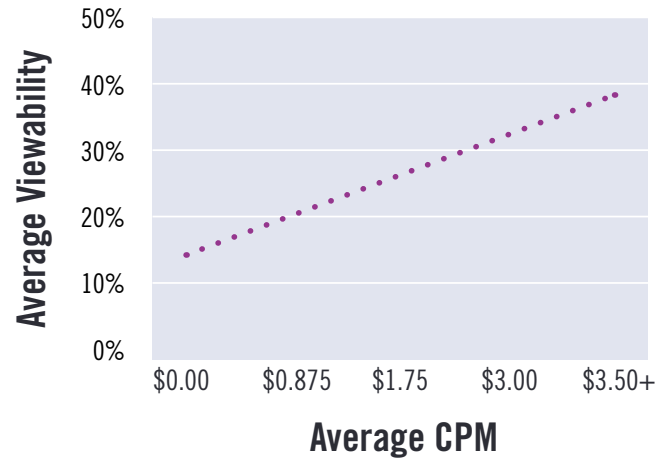


## 2 Private Exchange Has Higher In-View Rates Than Open Exchange

Industry discussions around viewability often focus on specific rates rather than overall efficiency of media. As the saying goes, "You get what you pay for." Not surprisingly, higher CPMs typically equate to higher in-view rates (see chart to the right).

**Private exchange (PMP) inventory will usually deliver higher in-view rates than open exchange (OX) inventory purchased through the same publishers (Figure 2).** However, when comparing in-view rates for PMP versus OX for the same publishers—and the vCPMs for each—the data reveals that the premium cost placed on PMP inventory does not *always* equal more viewable media, as seen in Figure 3 on page 9.

## In-View Rate For Display, Mobile And Video By CPM (Vendor C)



## In-View Rates: Private Exchange (PMP) Versus Open Exchange (OX)

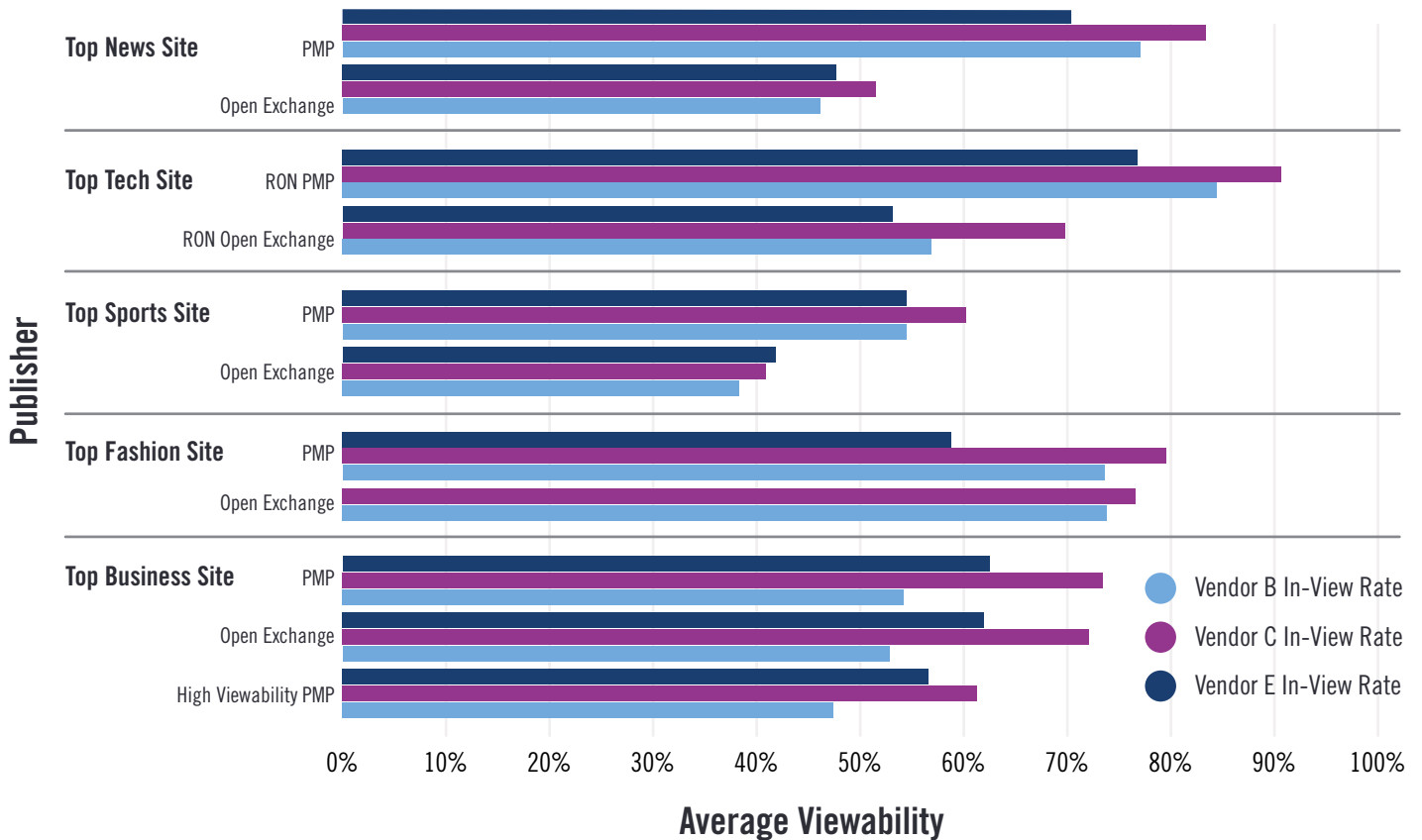


Figure 2. DataXu's buys across both private exchanges and open exchanges revealed that private exchanges demonstrated higher absolute in-view rates on average than open exchanges. One top business website's High Viewability PMP inventory represented an exception (the bottom-most exchange in the graph above). The results of the test demonstrate that even inventory that is likely highly viewable, and valued by the publisher, is not always measured as such using the techniques and methods employed by verification vendors.

### 3 Higher In-View Rates Don't Always Equal More Viewable Impressions

Perceived high-value, highly-viewable inventory does not always represent the most value per dollar for advertisers.

It is important for advertisers to identify what KPI is most important to them when briefing their tech partner or agency: a specific in-view rate, or a specific business outcome?

What will an ad campaign ultimately be measured on—its viewability, its efficiency, or a different metric entirely?

Viewability is a metric that is best evaluated relative to cost in a vCPM metric, rather than as a percentage of in-view impressions. As depicted in Figure 3 below, from a pure efficiency standpoint, OX often makes more sense than PMP—even though absolute in-view rates for PMP may be higher.

Assessing campaign success according to in-view rates alone poses the risk of measuring according to vanity metrics. For many campaigns (or advertisers) looking to maximize their viewability reach, vCPM may be a more accurate measure of viewability success than an in-view rate.

#### Efficiency: Private Exchange (PMP) Versus Open Exchange (OX)

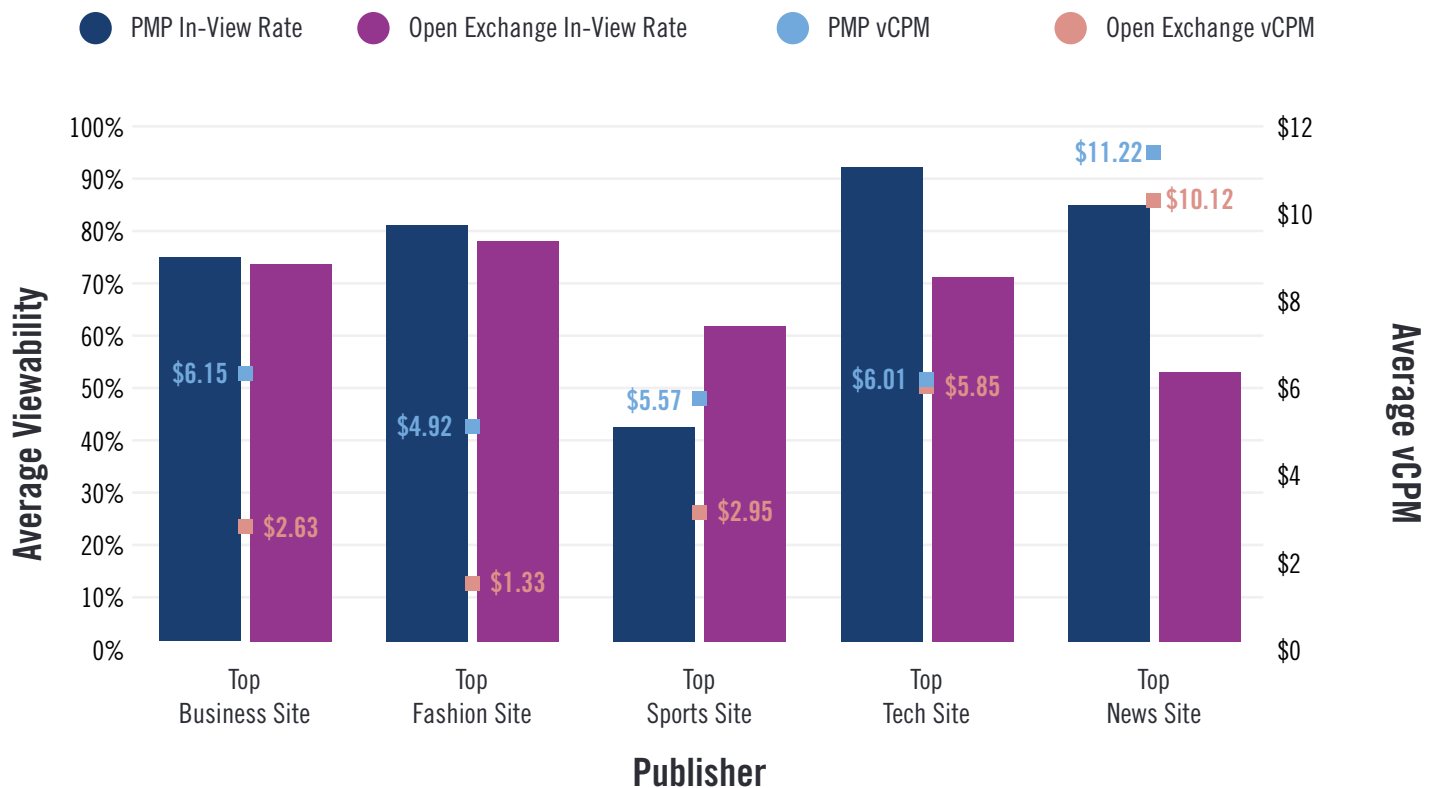


Figure 3. In-view rates for private exchanges are consistently higher than open exchange in-view rates, according to Vendor C's measurement of the test. (The one exception to this trend is for the sports site above.) When vCPM is calculated, OX proves to be more efficient than PMP.

## 4 Clickthrough Rates (CTR) And In-View Rates Are Correlated

A current debate regarding clickthrough rates (CTR) and viewability has to do with the presence or lack of a demonstrated correlation between the two. Based on DataXu's July 2016 viewability test, higher in-view rates are in fact correlated with an increase in CTR (Figure 4). More views tend to lead to more clicks across desktop display, mobile and video.

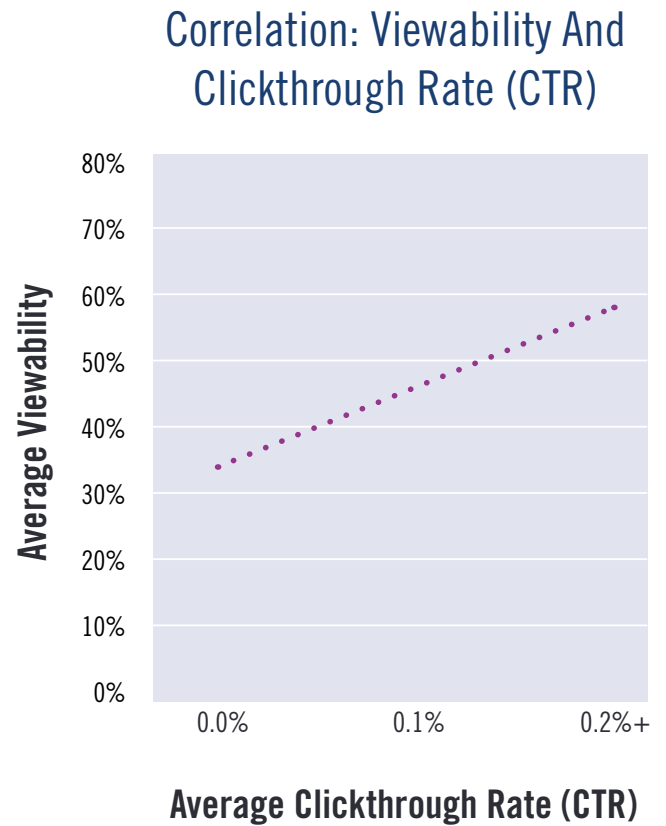


Figure 4. As in-view rates rise for desktop display and mobile and video, clickthrough rates (CTR) also tend to rise.

## 5 In-View Rates Vary Dramatically According To Creative Size

Creative sizes have different viewability rates, mostly due to differences in availability, "premium-ness," placement and price. **The most viewable ad position for an ad is directly above the fold**, rather than at the top of the page as one might suspect. Premium page inventory locations tend to host favorable creative sizes, which in turn translate to higher in-view rates. However, not all above-the-fold impressions are viewable, and many below-the-fold impressions are still highly viewable.

**Larger creative sizes yield higher in-view rates on average** (Figure 5). The most common display banner sizes, such as 300x250 and 728x90, tend to report lower in-view rates due to factors like page placement, price and prevalence. Sizes with the highest in-view rates are those typically found in the more premium locations of a webpage's design (e.g. 300x600, 160x600). Vertical units are the most viewable of all, as they stay on screen longer due to their vertical length.

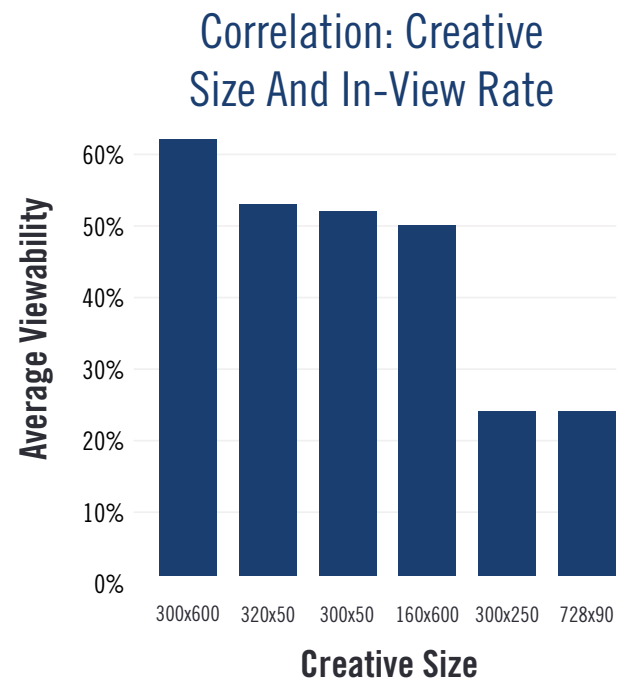


Figure 5. In-view rates are highly correlated with creative sizes. Larger creative sizes yield higher in-view rates on average; sizes which most frequently appear in premium locations of a webpage also have the highest in-view rates.





**“Over the course of three months, Lexus saw a 30% increase in overall view rate after implementing DataXu’s pre-bid viewability solution.”**

**Team One for Lexus**

# 4. DataXu Viewability Solutions

Advertisers and agencies are increasingly demanding highly viewable ads as one of their goals for their digital investments. Viewability goals are frequently accompanied by requests for a more efficient way to review viewability performance. As part of our commitment to providing brands and their agencies with the highest quality ads and most streamlined platform experience possible, **DataXu offers customers the ability to adjust which inventory they access within the DataXu platform based on their organization's minimum viewability requirements.**

## Pre-Bid Viewability And Reporting

The ability to review third-party viewability data alongside other performance data in DataXu's platform provides a consolidated view of campaign performance indicators for marketers.

**DataXu's built-in pre-bid viewability feature enables customers to choose between leading MRC accredited partners to best accommodate their organization's quality preferences and measurement requirements.** Pre-bid viewability incorporated directly into a DSP represents a significant step forward in making viewability less of a concern for advertisers.

**Lexus, for example, saw a 30% increase in overall view rate over the course of three months after implementing DataXu's pre-bid viewability solution.**

## Commitment To Quality And Safety

DataXu understands the importance of transparency and strives to provide customers with only high-quality, highly viewable, fraud-free inventory. Pre-bid viewability optimization represents a much-needed next step towards solving the industry's overarching quality problem, but it alone is not sufficient.

Other quality challenges require a similarly robust level of commitment from demand-side platforms if these challenges are to be kept in check. Rampant ad fraud, high levels of low-quality programmatic inventory and access to more premium

private exchanges all remain pressing industry challenges that DataXu takes an industry leading role in solving.

## 97% Fraud-Free Guarantee

As digital fraud levels continue to rise, advertisers have begun asking for proof that their programmatic buys will be viewable by humans. **Since January 2015, DataXu's platform and services have been accompanied by a 97% Fraud-Free Guarantee.** The 97% Fraud-Free Guarantee is automatically applied to all campaigns that run through the DataXu platform, at no additional cost to advertisers. In 2015 alone, the Fraud-Free Guarantee saved DataXu customers \$54 million.

A Fraud-Free Guarantee enables brand marketers and their agencies to pinpoint high-impact, authentic impressions before bidding, and allows advertisers to rest easy knowing that humans (not bots) are viewing their ads.

DataXu continues to address the issue of quality by regularly pruning inventory connections to facilitate high-value buying. DataXu facilitates easy access to highly viewable private exchange (PMP) deals for all customers and scrubs its current supply chain of poor quality inventory on an ongoing basis.

## Trustworthy Accountability Group

**In July 2016, DataXu was named one of the first 100 companies approved for the Trustworthy Accountability Group (TAG) registry,** kicking off a new era of transparency in digital advertising. TAG is focused on creating overall inventory quality guidelines (IQG) and combating fraud, piracy and malware. Once registered, companies are awarded a TAG-ID, a unique global identifier that they can share with partners and append to their ads or the ad inventory they sell.

Being a part of the TAG registry allows DataXu to play a key role in current and future initiatives on behalf of its customers. Upcoming TAG initiatives include Inventory Quality Guidelines and Fraud, Malware and Piracy Certifications.

# 5. Pre-Bid Viewability Case Studies

## DataXu Pre-Bid Viewability Solution Improves Beauty Brand In-View Rate by 46%

### Challenge

In order for digital marketing to have an impact, an ad must first be seen by a consumer. Prior to 2014, nearly half of all digital ads were deemed not viewable. Since then, advertisers' focus has pivoted from "served" impressions to "viewable" impressions, setting a minimum baseline for digital marketing campaigns.

A global beauty brand aimed to tackle the issue of "served" versus "viewable" impressions by partnering with DataXu to implement pre-bid viewability for its new video campaigns.

### The DataXu Solution

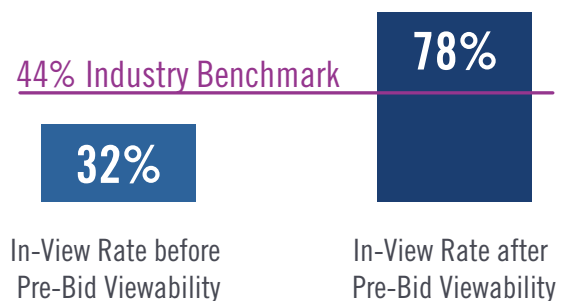
DataXu's **Pre-Bid Video Viewability** capability integrates third-party viewability optimization. As a result, DataXu customers globally have the ability to apply a simple and automated solution to improve viewability performance of their video campaigns.

### Results

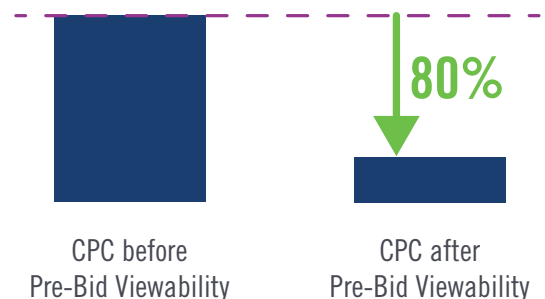
This beauty brand effectively strengthened its digital strategy for video and boosted the overall impact of its branding efforts through the use of DataXu Pre-Bid Viewability.

- After implementing Pre-Bid Viewability, the beauty brand's viewability skyrocketed overnight—jumping 46% and bringing the video viewability rate 34% higher than the 44% industry benchmark.
- As the brand's video in-view rate climbed, so did its secondary campaign KPIs of clickthrough rate (CTR) and cost per click (CPC). **From Week 1 of the video campaign to Week 2, the beauty brand's CPC dropped by 80%.**

### In-View Rate Increase of 46%



### Decrease In Cost Per Click (CPC)





# DataXu Pre-Bid Viewability Solution For Video Reduces Auto Manufacturer's CPA By 3x

## Challenge

According to eMarketer, the U.S. digital video advertising market is on pace to nearly double by 2019.<sup>3</sup> As a result, viewability has quickly become one of the primary success metrics for online video media buyers.

One large auto manufacturer sought to increase its efficiency by partnering with DataXu to implement a pre-bid viewability solution for its upcoming video campaigns.

## The DataXu Solution

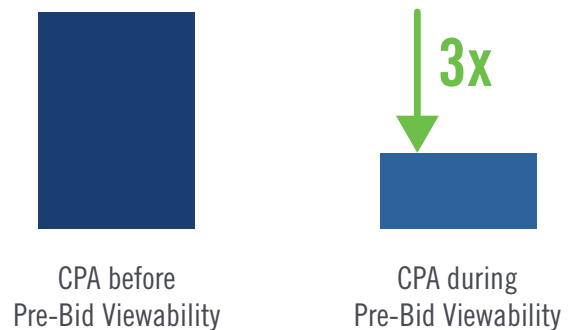
DataXu partnered with a MRC accredited verification vendor to implement industry-leading pre-bid video targeting. This allowed DataXu's auto manufacturer customer to target specific viewability thresholds for video ads through programmatic buying.

## Results

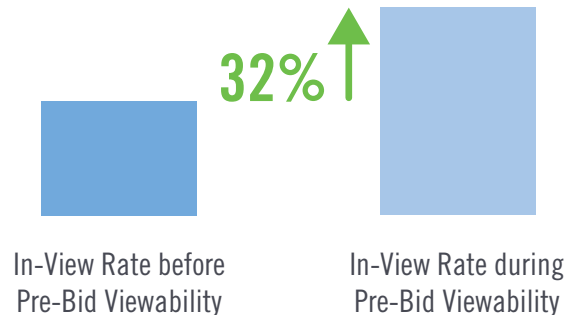
Through the use of DataXu's Pre-Bid Video solution, this auto manufacturer was able to achieve the following results:

- **3x reduction in CPA**
- **60% reduction in vCPM**
- **32% increase to in-view rate**

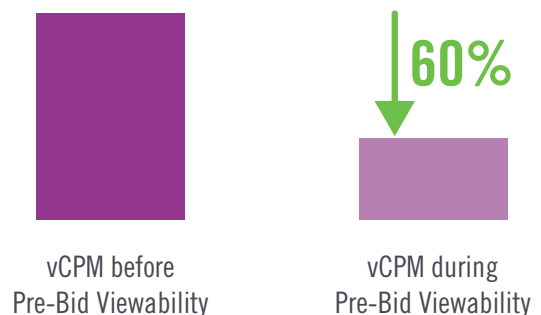
### 3x Reduction In CPA



### In-View Rate Increase of 32%



### 60% Reduction In vCPM



# 6. Top Three Viewability Tips For Brand Marketers And Agencies

Viewability metrics and measurement best practices are still very much works in progress. When it comes to incorporating viewability goals into an organization's existing campaign tracking and performance, **the following three tips will help marketers looking to develop a strategic point of view (POV) around viewability.**

## 1 Viewability Is Important— But Don't Make It A Primary KPI

The results of a 2016 DataXu customer survey revealed that teams running programmatic in-house identify strong viewability as being very important. However, they typically do not use viewability as a primary campaign KPI.

According to survey respondents, clients identify other success metrics which more closely relate to business outcomes as taking higher priority, such as number of automotive test drives booked or new subscriptions registered. Customers also mentioned that average viewability rates vary by both channel and industry vertical, which make it harder to deliver consistently against set client viewability expectations.

For **performance-based campaigns**, DataXu recommends that viewability never be treated as the primary KPI. Instead, viewability should be seen as an important quality measurement tool or as a supplement to other business outcome-related KPIs.

For **campaigns focused on brand awareness**, DataXu recommends applying pre-bid viewability solutions to ensure higher viewability for creatives. Higher viewability with deeper, better-defined actions will yield increased ROI overall for brand awareness campaigns.

## 2 vCPM—The Metric That Considers Efficiency When Measuring Viewability

Viewability is a metric that should be evaluated relative to cost—not just as a percentage of impressions in-view. Marketers should become familiar with a newcomer to the industry lexicon: vCPM. For many campaigns, measuring viewability according to vCPM is a more accurate and relevant KPI than measuring pure in-view rates.

## 3 Help Solve For The Industry's Uncertainty Around Viewability

Viewability is still an evolving metric. As the viewability percentages depicted within this report's graphs demonstrate, discrepancies between fully accredited viewability solution vendors are common. A fool-proof viewability measurement tactic or solution does not yet exist, especially for newer channels such as mobile.

Continued collaboration and communication across all facets of the industry will be necessary to move closer to the common goal of high-quality, fraud-free viewable media for all. **In the coming year, vendors will likely take the lead on viewability by providing additional optimization features and identifying ways to foster cross-ecosystem collaboration in order to improve industry quality standards and practices.**





# 7. The Evolution Of Viewability: Predictions For 2017 And Beyond

Industry discussions around viewability continue to evolve at a lightning pace. Here are five viewability-related developments likely to occur in 2017.

## 1 Expanded Measurement Across Channels And Devices

Expect verification vendors to start expanding their technologies to adjust to (1) emerging digital channels such as connected TV and (2) improved measurement coverage for newer types of inventory, such as mobile in-app. More measurement on more devices will soon be possible. However, it will take time for measurement technologies on emerging channels to be fully reliable, as technical hurdles must still be cleared.

## 2 A Shift Toward Metrics Beyond In-View Rates

As advertisers search for ways to concretely tie viewability to performance, metrics beyond pure in-view rates will take the front seat for campaign KPIs and optimizations. Examples of alternate metrics include average time in-view, viewable CPM (vCPM), viewable video completions and viewable CPA (vCPA).

## 3 Re-Defined Attribution Models

2017 will likely bring an increase in the accuracy of attribution models as a result of incorporating viewability into the equation. comScore, for example, has already begun to measure viewability using a methodology that considers transactions made on viewable impressions.

## 4 Increased Involvement From Ad Servers

MRC accredited ad servers are likely to become bigger players in the quality measurement space, particularly where it concerns redefined attribution models. Ad servers will find themselves in a unique position to capitalize on viewability measurement and its correlation to outcomes.

## 5 Move Beyond "100% Viewability"

The industry will move toward a new definition of a viewable impression. Publishers will only charge advertisers when an impression is in-view. Traditional attribution models will begin to take viewability into account, and vCPM will replace CPM in monthly reporting.

# About The Authors

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**Aaron Ledwith, Business Development Specialist, DataXu**

Aaron is an inventory quality specialist and holds the key responsibility of curating all of DataXu's inventory to ensure it is of the highest standard. With a background in cultivating client relationships and building out programmatic strategy, Aaron has transitioned in his role to focus on one of the key pillars of DataXu's offering: Quality. Aaron holds a B.S. in Communication Studies from Emerson College and focused his senior thesis on Location-Based Advertising.



**Beth McDonald, Manager of Product Marketing & Industry Solutions, DataXu**

Beth began her career in advertising on the agency side, planning and buying digital media for a number of notable brands including Exxon Mobil and NYSE. Prior to joining DataXu, Beth also worked in sales strategy and marketing for an online video analytics company. As a member of the Product Marketing team at DataXu, Beth focuses on building go-to-market solutions for DataXu's supply chain and on marketing analytics initiatives. Beth holds a B.A. in World Politics from Hamilton College.



**Tal Baron, Product Manager, DataXu**

Tal brings nearly ten years of marketing experience and a customer-centric approach to his role as Product Manager at DataXu. He is focused on developing innovative products and solutions to maintain media quality within DataXu's ecosystem. Prior to joining DataXu, Tal held several positions within client services organizations, gaining expertise in fraud prevention, viewability, brand safety, social advertising, client strategy and campaign optimization. Tal's experience in social media advertising, event marketing, and sponsorship marketing has provided him with well-rounded and insightful perspectives on the digital marketing landscape.



**Alexa Harrison, Corporate Marketing Specialist, DataXu**

With a background in advertising operations, Alexa brings hands-on platform and customer knowledge to DataXu's Corporate Marketing team. Alexa oversees DataXu's social media presence, corporate blog, public relations outreach and integrated digital marketing campaigns. Alexa holds a B.A. in English and Information Technology (IT) from the University of Massachusetts Amherst.



**Merrily McGugan, Director of Corporate Marketing, DataXu**

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# About DataXu

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DataXu's mission is to make marketing better using data science. The world's top brands and agencies use DataXu to better understand and engage customers across all devices and media formats.

Our solution provides marketers with unparalleled Media Activation, Marketing Analytics and Data Management capabilities. With sixteen offices in eleven countries, DataXu's full-stack solution is powering the digital transformation of the world's most valuable brands.

For more information about DataXu, visit [www.dataxu.com](http://www.dataxu.com).

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<sup>2</sup>MyersBizNet, Survey of Advertising and Marketing Executives on Media Effectiveness, May 2, 2016

<sup>3</sup>eMarketer, Mobile Spearheads Digital Video Advertising's Growth, February 22, 2016.

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