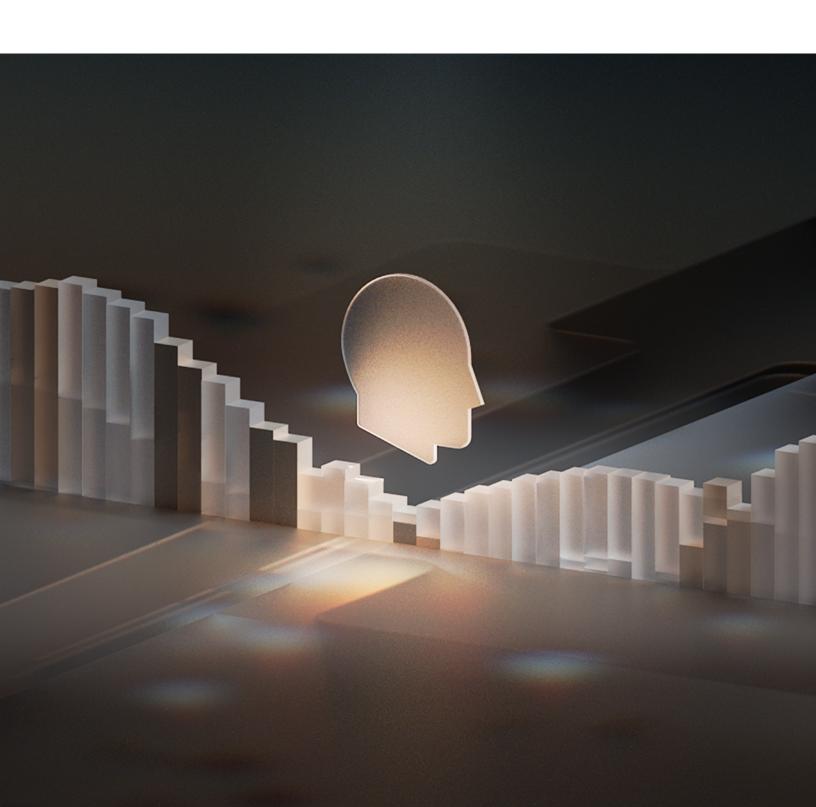
## **DIGIDAY** piano

THE STATE OF CUSTOMER DATA MANAGEMENT FOR PUBLISHERS

Tracking the transformation of data unification, revenue diversification and brands' data investments



#### Introduction

As publishers and their advertising partners become increasingly reliant on data for daily operations and critical business decisions, they subsequently are becoming more reliant on customer data platforms and other technologies to unify audience and customer information.

When publishers succeed at that step, their advertising partners also get a lift. They are able to strengthen and diversify campaign performance via audience, contextual, lookalike and cross-device targeting, retargeting and highly detailed reporting on performance — all with the help of their supporting brands and agencies.

These outcomes allow publishers to command higher prices for their on-page inventory as satisfied advertisers invest in their pages for the long term. Additionally, as publishers build out data management capabilities, they unlock new revenue streams, such as the ability to offer valuable and privacy-compliant data to advertisers and third-party partners, develop subscriptions and more.

Brands and advertisers want to — and need to — get closer to their audiences and they need strategies that fit the bill. In response, publishers are focusing on the plethora of contextual data their pages can generate as third-party cookies fall away. They're also parsing diverse data sets, including website analytics, email subscriber lists, registration information, third-party demographic info, purchase histories and more. Add to that the cross-device data pouring in from smartphones, tablets and computers, and the need for sophisticated data management solutions has never been more pressing.

To further explore how data-management-related offerings and relationships are evolving, Digiday and Piano surveyed 92 publishers (42%), brands (16%) and agencies (42%). This State of the Industry report dives into how publisher teams are collecting, unifying, segmenting and analyzing data as privacy regulations increase and advertiser expectations expand, as well as the challenges they're facing along the way and the advantages they're presenting to the brands and agencies with which they work.

#### **Table of contents**

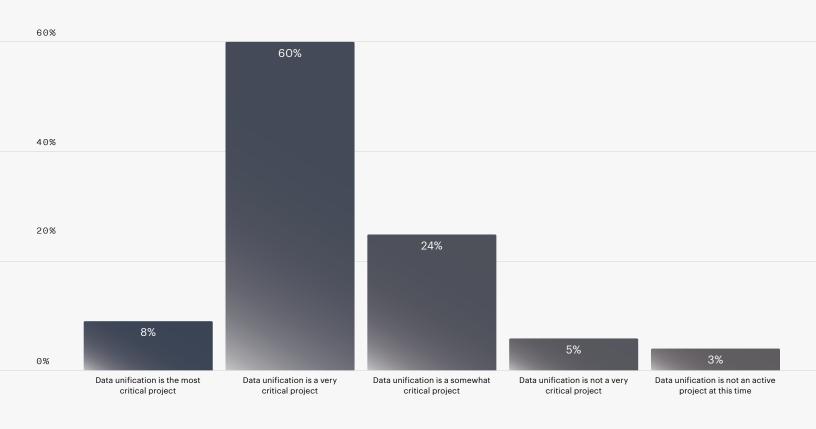
Data unification is a given goal; budgets need to catch up
Revenue from data unification is on the rise5
Publishers are focusing on in-house data collection and segmentation6
Audience behaviors and makeup are the primary data unification focus
Publishers are grappling with data quality and the staff and tools to manage it all10
Audience targeting and inventory value top publishers' DMP goals12
Publishers are taking a conservative approach to DMP budgets, most are seeing moderate revenue returns
Publishers are struggling to connect data unification to revenue diversification
Ad revenue dominates the revenue mix due to diversification challenges
Publishers are focused on engagement-related metrics
Data management challenges include effectively measuring success
For brands and agencies, user retargeting is the most critical publisher-provided service
Brand and agency spend on publisher-provided services are increasing
Transparency, privacy and data quality are challenges for brands and agencies
Putting the pieces together with the right data management partner27

#### Data unification is a given goal; budgets need to catch up

The majority of publishers — 92% — find data unification to be either a "somewhat" to "most" critical project for their team, with 8% specifically naming it the most critical project.

One result of their data unification efforts is a better mapping of data correlations, which ultimately means publishers gain a better understanding of their audiences. The essential nature of that understanding — its deep relevance to driving traffic and engagement, and so driving the value of publisher inventory — aligns in a logical way with the resounding affirmation our respondents gave to data unification efforts.

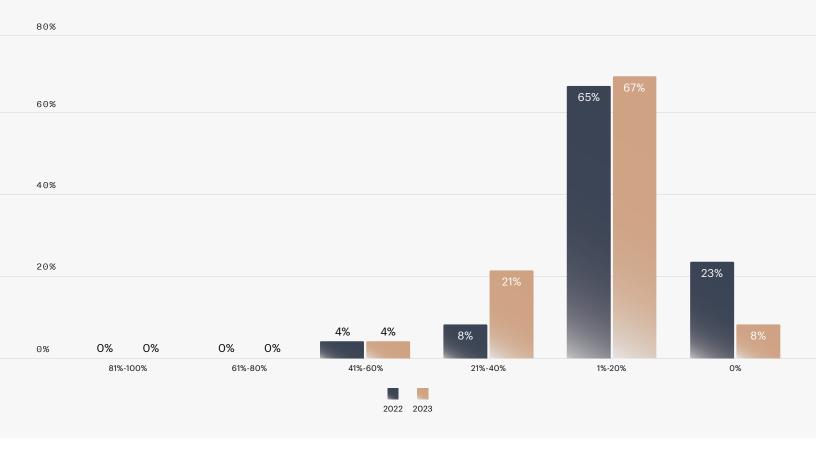
## How critical is data unification across all databases for a single comprehensive view of your audiences?



DIGIDAY PIONO

According to the next chart, the number of publishers adding data unification to their workflows has jumped to 92% in 2023 from 77% in 2022. Specifically, the 21%–60% budget range is seeing a sizable increase in 2023, more than doubling to 25% from 12% in 2022.

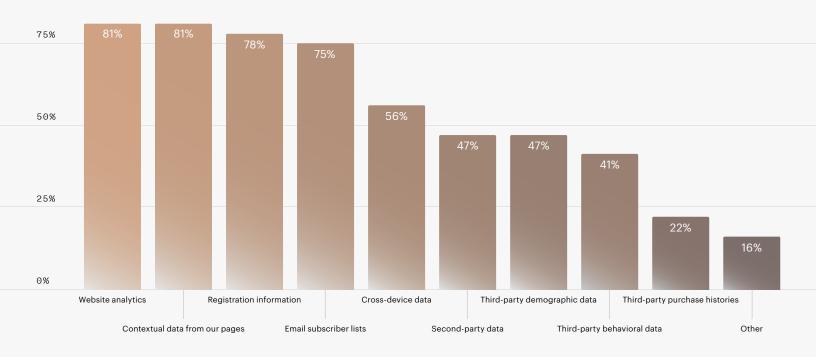
#### What percentage of your budget has been allocated to data unification?



As for the types of data publisher's teams are unifying, website analytics and contextual data are tied on our respondents' lists at 81%, with registration information a close second at 78%.

#### What types of data are your teams tasked with unifying? Select all that apply.

100%

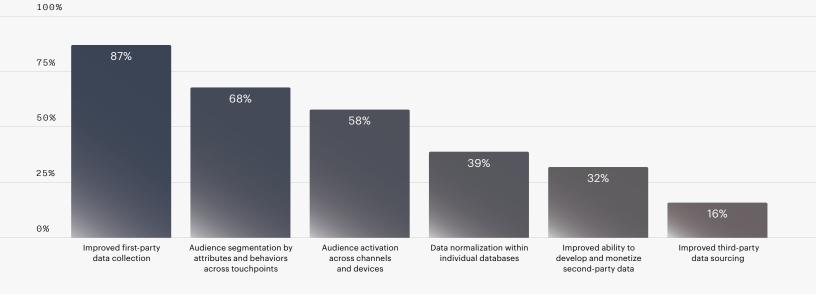


The heavy focus on first-party data is due, in part, to publishers concentrating on selling subscriptions to consumers and ads to brands and agencies. They're chiefly watching people interact with the content on their pages, and that first-party information informs their offerings. Brands and agencies, on the other hand, want to know how consumers are interacting with their ads on publishers' sites, so they're looking for this valuable information from publishers. And so, it's no surprise that third-party purchase histories, for example, are at the bottom of the list for publishers.

When looking at the write-in responses for respondents who chose "Other," most also echo this shift, centering on first-party data, including first-party transactional data, subscriber data, identity and more.

The top publisher goal for data management teams, cited by 87% of our respondents, echoes the very types of data they most often handle — first-party data collected on their pages from their audiences. This goal, combined with the next-ranked goal — audience segmentation by attributes and behaviors across touchpoints (68%) — speaks to the focus on analyzing web and contextual data previously identified.

## What are other top internal goals for your data management team(s)? Select all that apply.



The last answer on the list, improved third-party data sourcing (16%), suggests that with the deprecation of the third-party cookie, publishers are also deprecating their focus on sourcing third-party data.

Because third-party cookies have already disappeared on some devices and browsers — and will soon altogether — anonymous audiences won't figure as significantly to advertisers. Our chart highlights an outcome of that development: collecting anonymous third-party data isn't as important to publishers. Instead, first-party data, trackable and specific, tops the list.

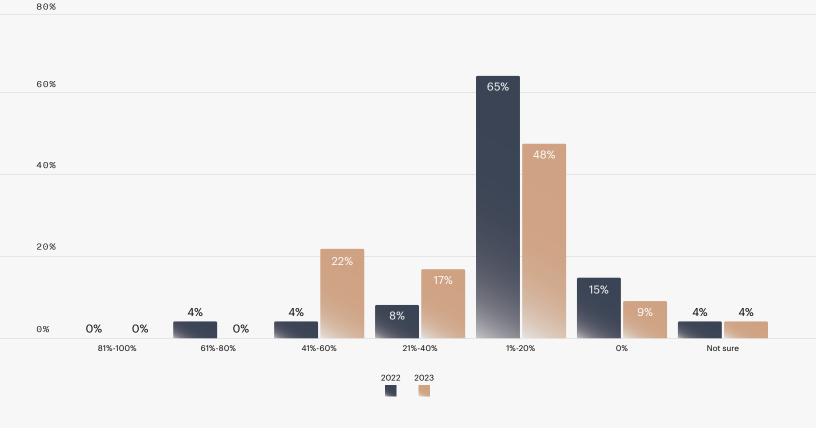
"Google's decision to deprecate third-party cookies has had a significant impact on how publishers collect and segment data," said Michael Silberman, executive vice president of media strategy at Piano. "Third-party cookies have been a key tool for brands, agencies and ad tech companies to track user behavior across multiple sites, which has allowed them to build detailed profiles of their audiences and create targeted advertising campaigns, sometimes benefiting publishers, but sometimes siphoning dollars away. The shift toward first-party data puts power back in the hands of publishers, who have that direct consumer relationship. But it requires publishers to adopt new technologies and approaches to data collection and segmentation."

#### Revenue from data unification is on the rise

When it comes to returns on their data unification investments, overall, most publishers told us revenue is flowing from their efforts. For example, in 2022, 85% of our respondents could attribute revenue to their data unification work, and 91% said so in 2023.

Furthermore, the amount of revenue they're seeing is increasing. In our survey, 39% of publisher respondents reported unification-aligned revenue in the 21%–60% range, up by 27 points from 12% in 2022.

## What percentage of your revenue can be attributed to your data unification efforts via new or improved revenue streams?



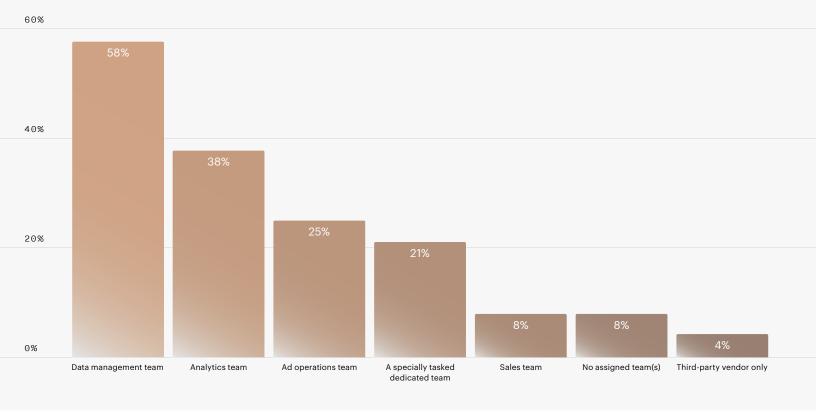
"Publishers seem to be allocating more resources toward these new revenue streams," said Silberman. "They realize that investment is needed in technology, content creation and marketing strategies to support these initiatives. While this does mean upfront cost, the return — diversified and sustainable revenue — is seen as worth the investment. Measuring the outcomes of these revenue diversification strategies means careful tracking of relevant KPIs. In turn, that requires a commitment to adequate staffing, ongoing education and investment in technology to ensure the success and sustainability of these strategies."

#### Publishers are focusing on in-house data collection and segmentation

When it comes to which teams in the publisher's organization are collecting data to be unified and applied to targeting and other advertiser services, the top answer for publishers in our survey (58%) was the data management team.

Analytics, ad ops and special teams also account for a middle grouping on the list of answers but sales teams and third-party vendors are low on the list at 8% and 4%, suggesting that publishers are first and foremost relying upon internal resources and, when they do, not pulling their sales reps away from closing deals to gather data.

## Who is tasked with collecting the data you then unify and use for targeting and advertiser services? Select all that apply.



Data management and ad ops teams are the first stop for our respondents for segmentation, and again, the data projects that tie into publishers' unification efforts are being assigned specifically to teams that are not directly tasked with revenue.

8%

Sales team

8%

No assigned team(s)

Third-party vendor only

## Who is tasked with segmenting the data you then unify and use for targeting and advertiser services? Select all that apply.

50%

10%

0%

Data management team

Analytics team

Ad operations team

40% 42% 30% 20%

17%

A specially tasked

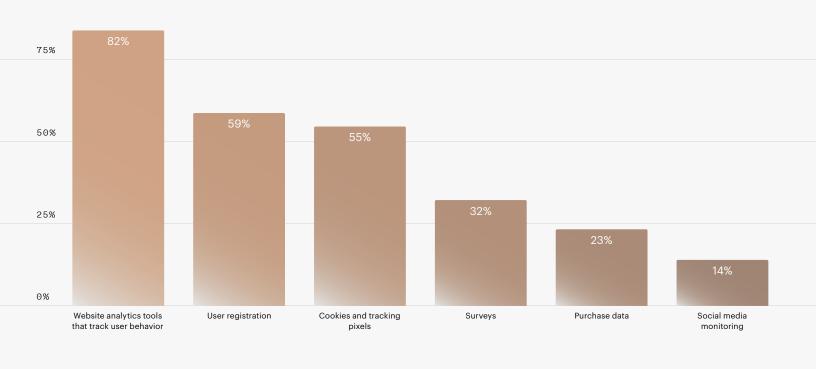
dedicated team

# Audience behaviors and makeup are the primary data unification focus

Among our respondents, 92% are collecting data and unifying it to fuel their targeting and advertising services. The technology they said they use to do that is primarily website analytics tools that can track user behavior — the most-cited choice at 82%.

How are you collecting the data you then unify and use for targeting and advertising services? Select all that apply.

100%

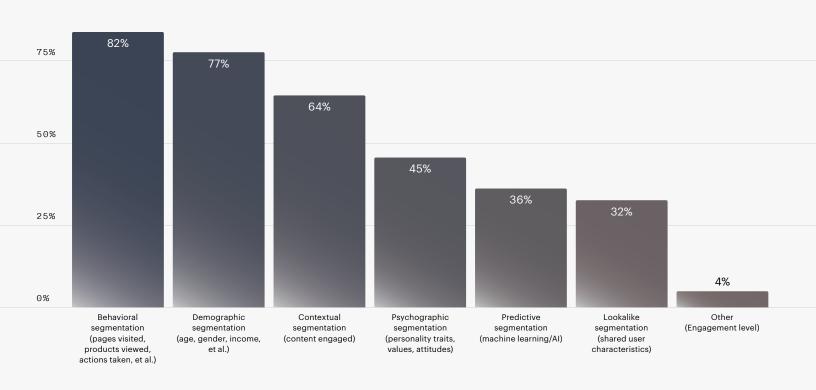


Publishers are signaling that user behavior is most valuable. Purchase information is lower on the list most likely because it's not directly tied to the attention and engagement focus most publishers have.

When it comes to data segmentation, the approaches at the top of our publishers' lists are behavioral segmentation (82%) and demographics (77%).

## How are you segmenting the data that your team(s) unify and use for targeting and advertiser services? Select all that apply.

100%



Predictive and lookalike segmentation are dozens of points behind the other segmentation strategies publishers are employing most likely because they aren't providing the concrete information that the more engagement-related ones do. Publishers' bread and butter lies within attention and engagement information, which can be gleaned from behavioral, demographic and contextual factors over predictive models.

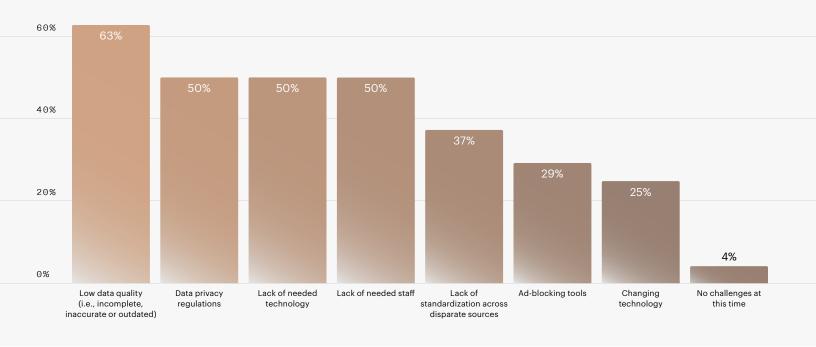
# Publishers are grappling with data quality and the staff and tools to manage it all

When it comes to the challenges publishers face in their data unification process, several top obstacles stand out around the step of collecting the information they need in the first place.

Low data quality (63%), data privacy regulations (50%), lack of needed technology (50%) and lack of needed staff (50%) are the top challenges publishers are encountering when collecting data.

### What are the top challenges you encounter when collecting this data? Select all that apply.

80%



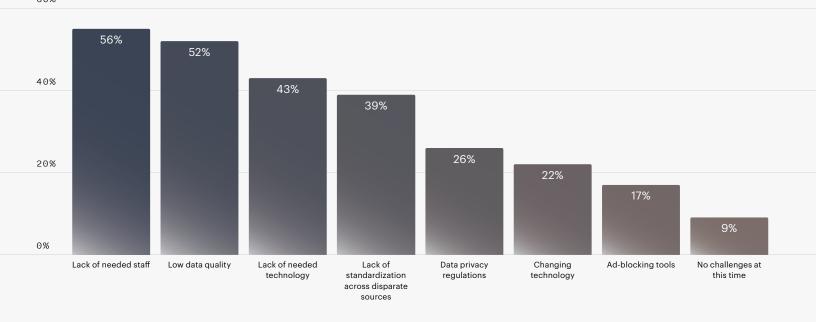
The number-one challenge is likely such a prevalent issue because so many publishers are struggling with not enough staff or not having the right technology to get the data they need. Between data privacy legislation limiting the types of data that can be collected from different geographies to not having the team bandwidth to keep up with incoming data and technology that isn't properly ingesting consumer data, these data quality challenges add up fast.

Segmentation shares these challenges as well, especially when it comes to staffing (56%), data quality (52%) and needed technology (43%).

#### What are the top challenges you encounter when segmenting this data? Select all that apply.

80%

60%



Data privacy regulations aren't as much of an issue within segmentation, but a lack of standardization across disparate sources (39%) is, coming in at 2 points higher than for collecting data. Data standardization is essential to a smooth data collection and segmentation process, but when the industry as a whole is struggling to establish such standardizations, it's no wonder this is such a prevalent issue for publishers on both sides.

Without a uniform method for formatting data, as teams collect and then segment data from disparate sources, it will take extra time and effort to organize and ensure it's consistent and logically formatted across all sources.

Data quality is a major concern for publishers. The challenge of not enough staff or not having the correct technology is bound to only exacerbate this top issue. Brands and agencies are likely to pick up on this as well.

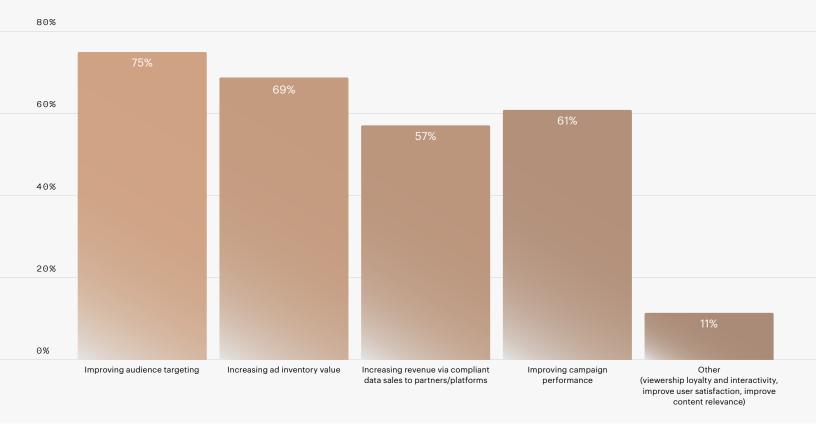
#### Audience targeting and inventory value top publishers' DMP goals

Data management platforms, DMPs, offer publishers various ways to manage the data they're collecting and bring in data from disparate sources. From there, publishers can have a central location for the data they're then segmenting for targeting and advertising services, with some platforms offering additional benefits, depending on the team's needs, such as a way to share and monetize data with partners.

With data quality and technology resources being some of the main challenges publishers are facing with their data management services, looking into how they're using DMPs — if at all — helps shed light on these obstacles.

The top goals publishers have include audience targeting (75%) and increasing the value of ad inventory (69%), which line up with the types of DMPs they're then using.

## What are the top goals for your data management team(s) using DMPs? Select all that apply.

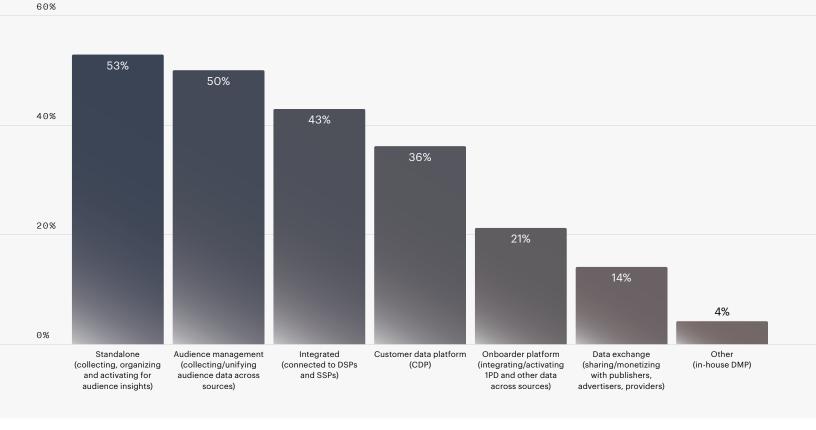


It's the most expected recipe for success that tops the list — publishers dig deeper into their audiences, understand them better and use those insights to drive views and engagement on their pages. That then brings advertisers who want to get their ads into those inventory spots that enjoy high traffic and long dwell times.

Among the 90% of publisher respondents in our survey who said they were using DMPs, the most popular type was standalone DMPs (53%), with audience management DMPs close behind (50%).

It makes sense that most publishers are utilizing DMPs built for collecting, unifying and activating audience data and insights when the top two publisher goals for data unification were improving audience targeting and ad inventory value.

## What types of data management platforms (DMPs) is your company using? Select all that apply.



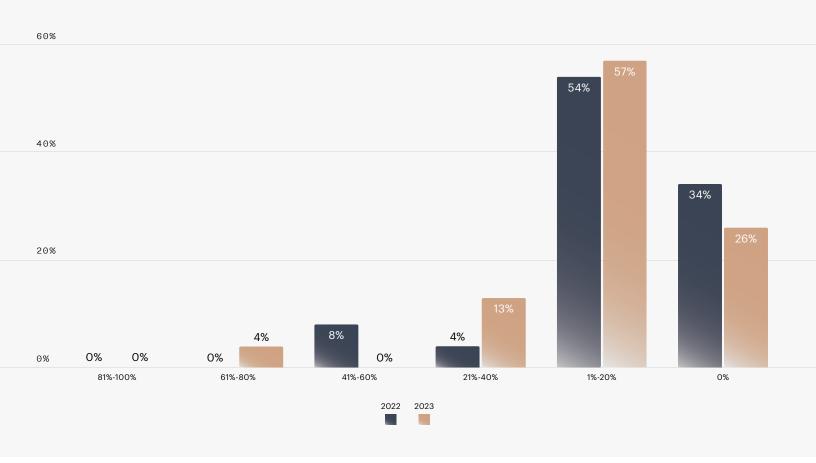
"Whether publishers are missing out by not investing in other types of DMPs depends on their specific needs and goals," Silberman said. "It's important for them to evaluate their specific situation before investing in new technologies or services. Ultimately, the key is to have a clear strategy for data management that aligns with the publisher's overall business objectives. Publishers should be focused on using data to create value for their audiences and drive business results, whether this involves using standalone DMPs, publisher-focused DMPs, contextual DMPs or a combination of these and other technologies."

Publishers are taking a conservative approach to DMP budgets, most are seeing moderate revenue returns

When it comes to the budgets for the DMPs our publishers are using, the overarching takeaway is that it's conservative. About three-quarters of our respondents are budgeting for DMPs in 2023, but more than half are confining that allocation to the 1%–20% range.

While the amount publishers are allocating to DMPs is increasing year-over-year, it's incremental. One factor that could be driving this approach: DMPs have been historically dependent upon third-party data, so the lack of publisher investment in these platforms at the moment could be due to their inability to find DMPs that suit their current first-party data needs.

#### What percentage of your budget has been allocated to working with DMPs?

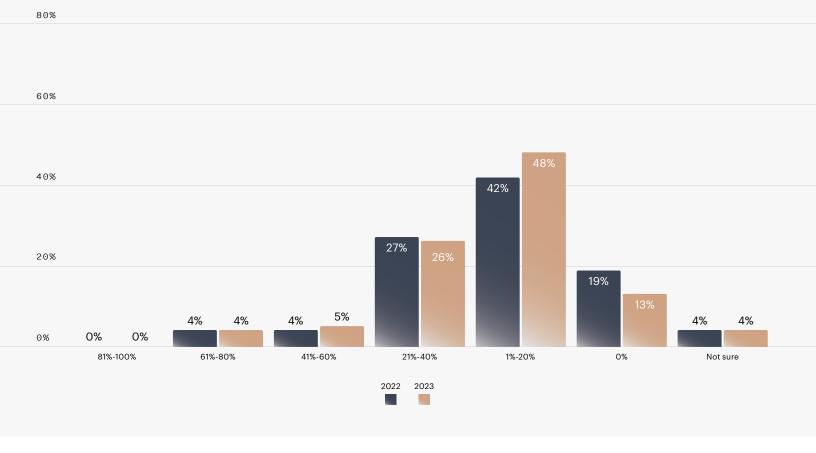


DIGIDAY | PÍQ∩O

As for the revenues DMPs are helping to create, they mostly remained the same between 2022 and 2023.

While a significant percentage, more than one-quarter (26%) pegged DMP-related revenue as accounting for one-fifth to nearly one-half of their revenue, most respondents (48%) said the new or improved targeting they achieve with DMPs account for 1%–20% in 2023.

## What percentage of your revenue can be attributed to your work with DMPs via new or improved targeting and advertiser services?



Again, the revenue publishers are seeing from their work with DMPs is incremental and could be due to a number of factors. Because many are still not setting aside any budget to work with DMPs, that is likely one contributing factor. Another is that due to the wide range of functions DMPs offer, publishers could either be struggling to set up their platform or not using the right one for their desired outcome, resulting in less revenue in the end.

## Publishers are struggling to connect data unification to revenue diversification

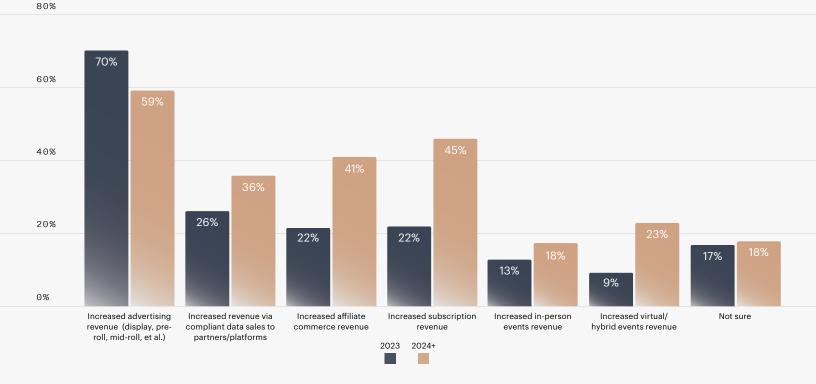
Revenue diversification is a crucial strategy for publishers as it can help protect them from the ups and downs the industry experiences. By spreading out and establishing a variety of different income streams, publishers can work toward more stable earnings long-term.

As publishers begin employing this type of business model, data unification emerges as an essential first step. Bringing together data from disparate sources allows publishers to see what information they have at their disposal and what they can do with it. This process can be tedious, but unified data means smarter, more deliberate decisions and personalized campaigns. This then leads to more effective diversification strategies.

In 2023, 88% of our publisher respondents were making data unification efforts that made a significant impact on their revenue diversification goals, and looking ahead to 2024 and beyond, that increases to 92%.

Some of the areas with the largest increases in impact include subscription revenue (+23 points), affiliate commerce (+19 points) and compliant data sales. By increasing the focus on data unification, publishers are able to obtain a clearer picture of the data at hand and work toward ensuring it's accurate. In doing so, they'll naturally increase compliant data sales and perhaps be able to attribute more revenue to affiliate commerce and subscriptions by having a better idea of where their data came from.

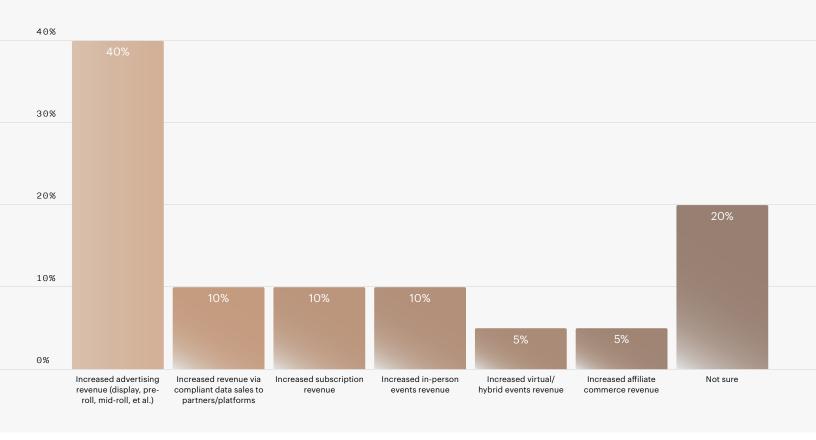
## Specifically, what impact has data unification had on your revenue diversification goals? Select all that apply.



While this year publishers are clearly relying on advertising revenue, next year and beyond, they're predicting a much wider spread of impact. Not only are publishers likely to realize it's not a good idea to put all their eggs in one basket, but they may also be gaining a better understanding of their strategy.

Unsurprisingly, the biggest impact our publisher respondents have seen from using DMPs in their revenue diversification goals has been an increase in advertising revenue at 40%, however, 23% are either not making any data unification efforts or say those efforts have not yet made a significant impact on revenue. Additionally, 20% aren't sure what that impact has been, although, that could be due to not enough time passing since beginning such efforts.

#### What has been the impact of DMPs on your revenue diversification goals?



With so many publishers not seeing an impact on revenue or not sure if they are, it could be a good time for them to reexamine the types of DMPs they're using to see if they're really the right ones for their needs.

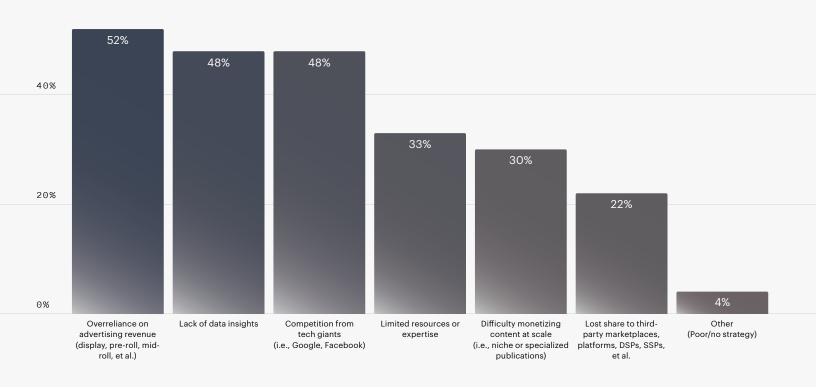
#### Ad revenue dominates the revenue mix due to diversification challenges

The top challenge is a perennial one — an overreliance on ad revenue (52%). However, when publishers see this as the money maker, they may be less likely to devote the time and energy toward other revenue sources, perpetuating the cycle. And, when there's a lack of data and motivation to work on additional revenue sources, then the focus is likely to remain on that ad revenue.

Among the top three publisher challenges in diversifying revenue, a lack of data insights (48%) and the competition from tech giants (48%) go hand-in-hand. It's difficult for publishers to obtain data they don't have in-house when tech giants are walled gardens not letting anyone in or out with data that isn't their own.

## Overall, what are the top challenges you face around diversifying your revenue? Select all that apply.





"Collaborating with other publishers can be an effective way to overcome competition from tech giants," said Silberman. "By forming partnerships and alliances, publishers can leverage each other's strengths, share resources and reach new audiences. Additionally, innovation and experimentation are key to staying ahead of the curve and finding new revenue opportunities.

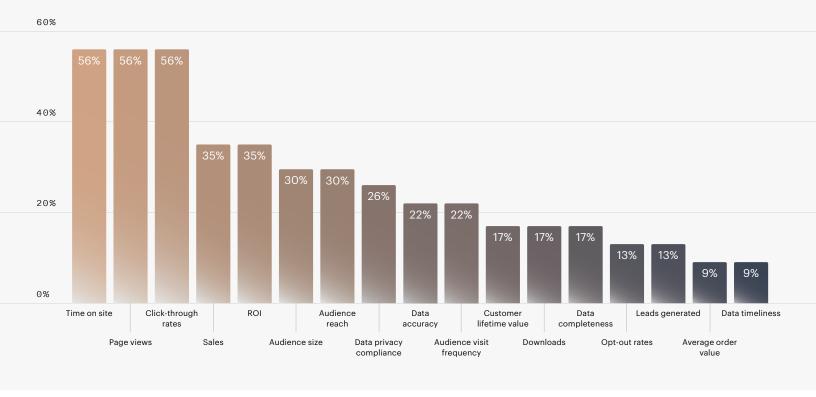
"Finally, publishers should prioritize the user experience in everything they do," Silberman continued. "By creating high-quality, engaging content and providing a seamless user experience across all platforms and channels, publishers can build strong relationships with their audiences and drive long-term engagement and loyalty."

The overreliance on advertising revenue looks to be in line with the majority of the impact publishers are seeing this year, which is likely to explain the shift in revenue diversification goals for 2024 toward a number of more offerings. As for the lack of data insights, an increased focus on gathering quality first-party data and looking to new tools could help teams overcome that hurdle.

#### Publishers are focused on engagement-related metrics

After establishing the importance of data unification, who is implementing it and how, and the role DMPs play as well as their impact on revenue diversification, it's now time to dive into how publishers are measuring the success of their overall data management strategies.

## How are you measuring the success of your data management strategies? Select all that apply.



DIGIDAY PIQOO

Within the 92% of our respondents who told us they are actively measuring the success of their strategies, the top three metrics voiced by our publisher respondents — by a fairly significant margin — are time on site, page views and click-through rates all at 56%. These coincide with publishers' goals of engagement and attention to their site's content, leading to offering increased value to advertisers, but it is interesting to note that some other metrics aren't valued as highly.

Data privacy compliance, data accuracy, data completeness and data timeliness were all chosen by about one-quarter of publisher respondents or less. Even though publishers need to focus on what's making them money, they can't forget that the quality of the data they're offering their advertisers is a huge part of many of their revenue strategies as well.

"There are many tools publishers can use to gain valuable insights into the impact of their data management strategies and identify areas for improvement," Silberman said. "Our Ad Revenue Insights tool measures ad revenue on publisher websites and tracks the value of every ad impression, unifying that data with page and user data. It provides an unprecedented level of detail about the advertising value of content, user segments and marketing campaigns that many publishers could take advantage of.

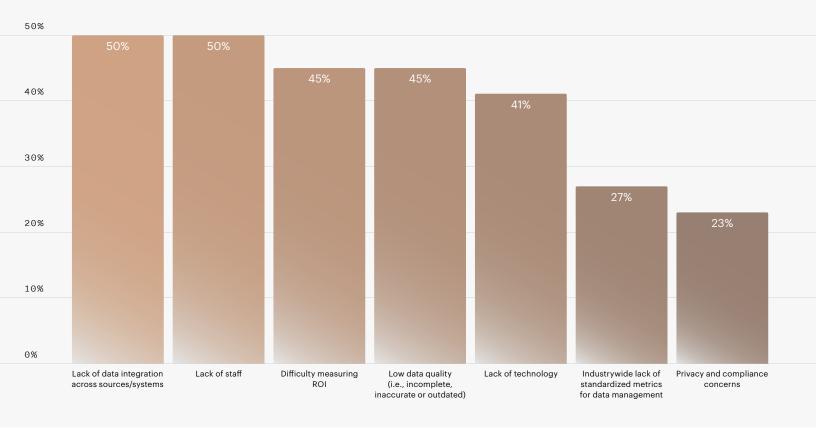
"Publishers should also monitor industry benchmarks and best practices to gain a better understanding of how their data management strategies compare to those of their peers," Silberman continued. "This can help publishers identify areas where they are lagging behind and develop strategies to improve their performance. Data management strategies are not static and should be continuously refined to improve performance. Publishers should regularly review their data management strategies, analyze performance metrics and make adjustments as needed to optimize their results."

# Data management challenges include effectively measuring success

The challenges publishers face when measuring the success of their data management strategies echo those they encounter when collecting and segmenting data, as well as when diversifying revenue — lack of staff (50%), low data quality (45%) and lack of technology (41%) — with a lack of data integration across sources/systems (50%) at the top.

Additionally, these challenges may explain why so many publisher respondents were not using metrics such as data accuracy, data completeness, data timeliness and data privacy compliance to measure the success of their data management strategies. Without integrated, high-quality data, technology and standardized metrics, many are likely struggling to measure their success in the same way they can for their revenue.

## What challenges do you face around measuring the success of your data management strategies? Select all that apply.

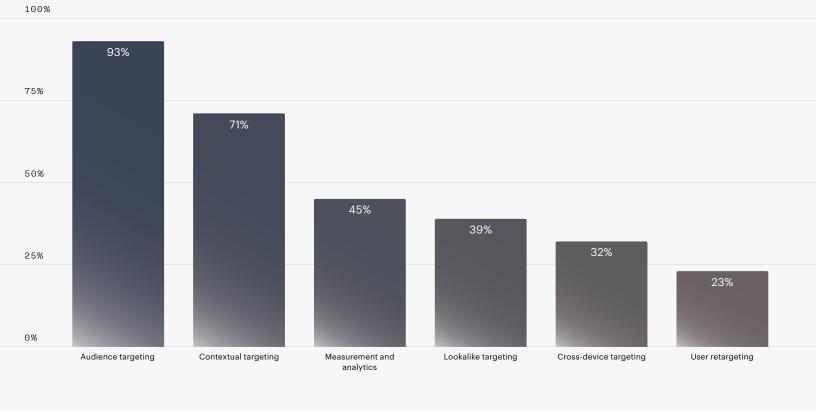


For brands and agencies, user retargeting is the most critical publisher-provided service

While the challenges, budgets and strategies publishers are employing for their data management services have been explored in-depth, now it's essential to shift to the specific services provided. What do publishers say these are and then, what do brands and agencies say?

Audience targeting topped our publishers' list at 93% for services provided to advertisers. Contextual targeting services (71%) came in second on the list with measurement and analytics rounding out the top three at 45%. This lines up with the types of data publishers said they're tasked with collecting and then unifying.

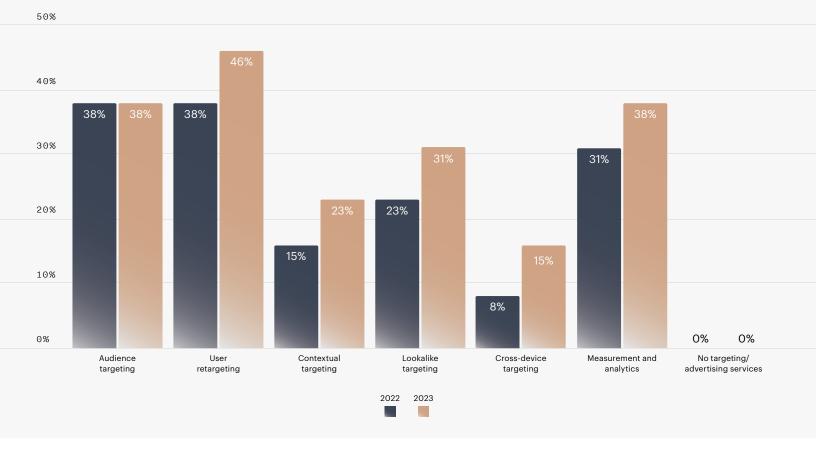
Publishers: What are the top targeting and advertiser services your data management team(s) help provide on behalf of advertisers? Select all that apply.



Moving to the brand and agency portion of our survey, the focus is on finding out how they view the services publishers are providing them and comparing it to what our publisher respondents have told us.

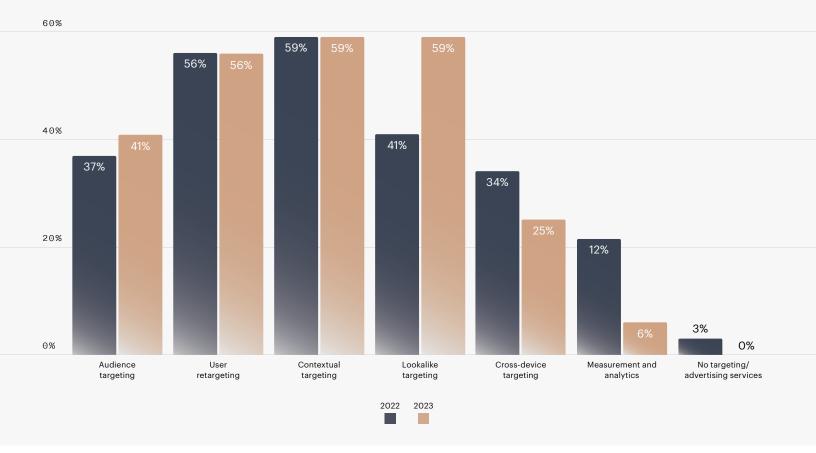
In 2023, user retargeting is at the top of the list as far as the most critical publisher-provided services for brands at nearly 50%. Last year, user retargeting was tied for first with audience targeting at 38%.

# Brands: Among the targeting and advertising services your publisher partners provide, which have been most critical to your marketing strategies? Select all that apply.



This year, contextual and lookalike targeting are tied at 59% for the top services agencies are seeking from publishers. In 2022, contextual targeting was still in first place at the same percentage — tied with lookalike targeting —, with user retargeting coming in second at 56%. The 18-point increase for lookalike targeting is likely due to an increase in privacy regulations and a desire for more anonymized methods of targeting.

# Agencies: Among the targeting and advertising services your publisher partners provide, which have been most critical to your marketing strategies? Select all that apply.



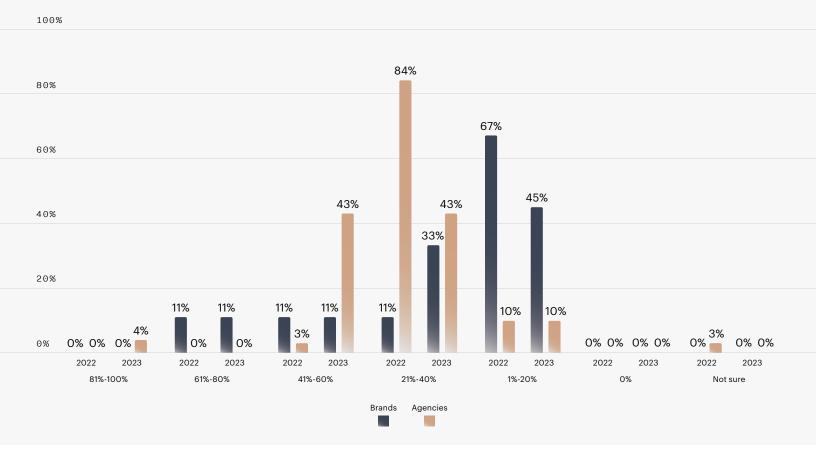
Only 23% of publishers said user retargeting was a top service they provided, however, it's at the top of what brands and agencies are looking for, according to our survey.

The discrepancy here could be that publishers aren't valuing this service as much as brands and agencies are. Perhaps it comes down to a matter of cost versus revenue gained for the service.

DIGIDAY | pio∩o

Brand and agency spend on publisher-provided services are increasing In 2023, the trend is toward increasing spend for the publisher-provided targeting and advertising services deemed most critical. Brands within the 21%–40% bracket increased by 22 points, while agencies saw the largest jump in the 41%–60% range, which increased by 40 points.

# What combined percentage of budget has been allocated to the publisher-provided targeting and advertising services you selected as most critical in the previous question?



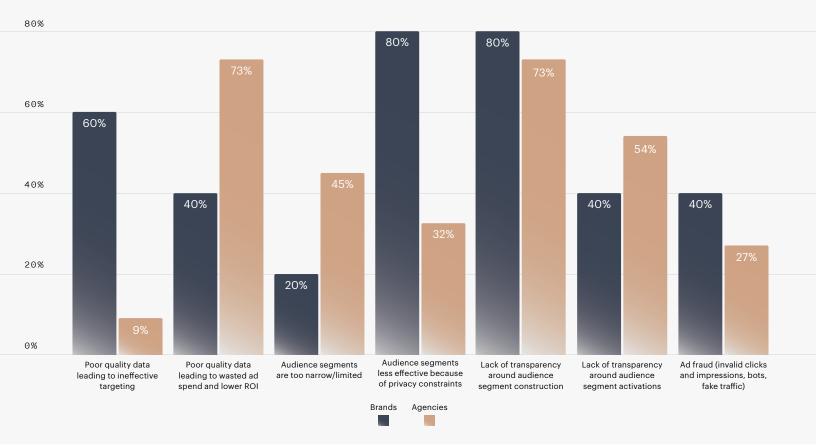
The spend brands and agencies have to give is fairly significant, and increasing. But in order for publishers to gain more of this share, they'll likely need to focus on expanding their retargeting and lookalike efforts to align more closely with what advertisers are looking for.

Transparency, privacy and data quality are challenges for brands and agencies

Brands and agencies aren't entirely aligned when it comes to the challenges they're encountering with their publisher-provided targeting and advertising services, although, most of the significant ones reflect the challenges publishers face as well.

For brands, audience segments that are less effective due to privacy constraints and a lack of transparency around audience segment construction are at the top — both at 80%. Agencies also cited the latter as a top concern, with poor quality data leading to wasted ad spend and lower ROI tying at 73%.

# What is consistently challenging regarding the publisher-provided targeting and advertising services you selected as "most critical" in the charts on pages 22 and 23? Select all that apply.



The common challenge between brands and agencies could be an easy fix for publishers if they increased communication with these clients.

If publishers want to increase their revenue, especially as they continue to diversify, they need to work on ways to obtain higher quality and more complete data. Being straightforward with their clients is another way they can earn the trust and wallets of their advertising partners.

Putting the pieces together with the right data management partner

The disconnect between what brands and agencies say is most critical to them and what publishers say they're working on providing the most is an interesting one. It could be that publishers are missing out on opportunities to gain more revenue by not aligning their offerings with what brands and agencies are currently looking for.

On top of this, the majority of the challenges publishers are facing circle back to one central issue: low-quality data — and it's something advertisers have noticed, too.

As publishers evaluate and update their data management goals and needs, they may find themselves in need of a partner to bring the pieces together and help get them across the finish line.

Silberman at Piano has some advice on the key characteristics to keep in mind when searching for a data management partner.

"Publishers should look for partners that have a proven track record of success in data unification and data management," said Silberman. "They should have the expertise and experience needed to help publishers identify and implement the best strategies for unifying data and activating insights to drive results. And no two publishers are exactly alike, so the ideal partner should offer a flexible and customizable approach to data management services. They should be able to tailor their services to the unique needs of each publisher and adapt their strategies as the publishers' needs and goals evolve over time. Data privacy and security are also critical concerns for publishers and their audiences. The ideal partner should have strong data privacy and security measures in place to ensure that publisher and audience data is kept safe and secure."

Now that publishers have an idea of the qualities they should be seeking within a data management partner, there are some questions they should first ask themselves before embarking on a deep-dive search.

- What specific data management needs and goals does the team have?
- What types of data does the team need to unify, segment and analyze?
- What level of customization and flexibility does the team require from a data management partner?
- What level of data privacy and security does the team need to ensure its data and audiences are protected?
- What level of collaboration and partnership does the team expect from a data management partner?

DIGIDAY PIQOO

Once publishers have answered those questions and have identified prospective partners, they can move on to asking them the following questions recommended by Silberman.

- What experience and expertise does your team have in data management and unification?
- What types of technology tools and platforms do you use to support data unification and analysis?
- How do you customize your services to meet the unique needs of your clients?
- What measures do you have in place to ensure data privacy and security?
- What level of collaboration and partnership do you provide to your clients?

While the majority of publishers are putting a fairly heavy focus on data unification, the resulting revenue isn't as strong yet as it could be. Publishers will need to continue their shift toward an improved first-party data strategy, building stronger, higher-quality datasets. To keep brands and advertisers happy, they'll need to double down on transparency and do what they can to gain access to the staff and technology they need to provide robust targeting and advertising services. Part of that will likely involve taking a look at the platforms they're currently using and investing in solutions that align better with their goals and needs. Additionally, as teams shift their goals, they may need to search for a data management partner to ensure they are providing strong services to their brand and agency clients, which will hopefully give them a clearer line of sight to their revenue success.

#### **About Piano**

Piano helps organizations understand and influence customer behavior by putting the power of insights and logic into the hands of their employees. The Piano Analytics and Activation Platform measures thousands of customer data points and acquires first-party data to more deeply engage users and then serve relevant content and experiences based on their unique behaviors and profiles. Using this powerful end-to-end platform, Piano's clients have achieved more scale, engagement and revenue by expanding the lifecycle and value of every digital interaction. Piano's global customer base includes IBM, CNBC, Nielsen, The Wall Street Journal, NBC Sports, The Telegraph, the BBC, Kirin Holdings and more. Piano has been recognized as one of the fastest-growing, most innovative technology companies in the world by Red Herring, World Economic Forum, Deloitte and the Business Intelligence Group.

For more information, visit piano.io