

## **Q4 2024 AppLovin Earnings Presentation**

### **David Hsiao, Head of Investor Relations:**

Welcome to AppLovin's earnings call for the fourth quarter and year ended December 31, 2024. I'm David Hsiao, Head of Investor Relations. Joining me today to discuss our results are Adam Foroughi, our Co-Founder, CEO and Chairperson ; and Matt Stumpf, our CFO. Please note, our SEC filings to date, as well as our shareholder letter, financial update, and press release discussing our fourth quarter and annual performance are available at [investors.applovin.com](https://investors.applovin.com).

During today's call, we will be making forward-looking statements, including but not limited to the future development and reach of our platform, our expected growth opportunities, the result and timing of our strategic transactions, the efficiency of our operations, the expected future financial performance of the company and other future events. These statements are based on our current assumptions and beliefs, and we assume no obligation to update them except as required by law. Our actual results may differ materially from the results predicted. We encourage you to review the risk factors in our most recently filed Form 10-Q for the third quarter ended September 30, 2024. Additional information may also be found in our annual report on Form 10-K for the fiscal year ended December 31, 2024, which will be filed later this month.

We will also be discussing non-GAAP financial measures. These non-GAAP measures are not intended to be superior to or a substitute for our GAAP results. Please be sure to review the GAAP results and the reconciliations of our GAAP and non-GAAP financial measures in our earnings release and financial update available on our Investor Relations site. This conference call is being recorded, and a replay will be available for a period of time on our IR website. Now, I'll turn it over to Adam and Matt for some opening remarks, then we'll have the moderator take us through Q&A.

### **Adam Foroughi, Co-Founder, CEO and Chairperson:**

Thank you all for joining us. Q4 was a major milestone — arguably our most foundational period since the AXON upgrade in 2023. For the first time, we captured meaningful holiday shopping advertising dollars and witnessed the impact of an advertising category beyond solely gaming contributing to our growth.

I'm sure many of you are curious about how much revenue our e-commerce category contributed. While we're not breaking out revenue by vertical because that's not how we

view our business, I'd like to provide some perspective. We operate a platform that reaches over a billion people in mobile games daily, with engagement times comparable to social networks. Historically, most of our ads focused on advertising for other games. But now, we're attracting a broader set of advertisers.

Q4 results show that our models can perform in other categories in addition to continuing to improve performance for our gaming customers. This breakthrough is only the beginning. We've now also validated that our platform success isn't only limited to direct-to-consumer brands. Early pilots have shown positive outcomes for a range of advertisers, suggesting that any business in any vertical can harness the power of our platform.

This opens up a massive opportunity as there are over 10 million businesses worldwide who advertise online that could eventually use our platform profitably. By delivering incremental value, we position ourselves as an engine for growth. It's a win-win for brands, consumers and shareholders. These early results solidify our vision of building one of the most influential marketing platforms in the world.

Where we once focused on gaming, we're now positioning ourselves to serve the entire global advertising economy. Importantly, the users engaging with our network aren't just shifting existing purchases; they're discovering new products while playing the games they love, generating truly incremental demand. By enabling these discoveries, we're expanding the global economy for consumers and advertisers alike.

Demand from advertisers wanting to join our platform is high. Currently, our systems are still being fully developed and lack the full self-service capabilities needed to handle growth at scale. Our priority this year is to develop and roll out more automated tools to allow countless new businesses to tap into our platform.

In line with this expanding focus on advertising, we've been assessing how best to invest our resources to serve the needs of a global client base. Seven years ago, we began acquiring gaming studios to help train our earliest machine learning models, an invaluable step in shaping the AI that underpins our AXON platform. However, we've never been a game developer at heart. We have immense respect for the creativity it takes to build games, including from teams in our studios. Today, we're announcing we've signed an exclusive term sheet to sell all of our Apps business.

Matt will share further details, but I want to emphasize to our teams: you'll soon be part of a company that specializes in and champions game development. While it's bittersweet to

part ways, we're excited for your future and immensely grateful for your role in getting us to where we are today.

Finally, I'd like to highlight our favorite metric going forward: Adjusted EBITDA per employee. As we're transitioning to a pure advertising platform, our focus will be on productivity, automation, and building lean, high-impact teams. In Q4, we had approximately \$3 million in run rate Adjusted EBITDA per employee in our advertising business, and we expect that number to rise as we refine processes and scale our business. This metric underscores our commitment to operational excellence.

Thank you for your continued support and partnership as we enter this next phase of growth. I'm more confident than ever that we're building a platform with the potential to transform global marketing.

With that, I'll turn it over to Matt for a deeper look at our financials.

**Matthew A. Stumpf, Chief Financial Officer:**

Thanks, Adam, and good afternoon. I'm happy to announce we had another strong quarter, with total revenue increasing 44% from the same period last year to \$1.37 billion and Adjusted EBITDA increasing 78% to \$848 million, achieving a 62% Adjusted EBITDA margin. This represents an 89% flow-through from revenue to Adjusted EBITDA. In the fourth quarter, we generated \$695 million in free cash flow, up 105% year over year.

Quarter over quarter, our free cash flow grew 28%, representing 82% flow-through from Adjusted EBITDA to free cash flow. Free cash flow grew slightly more than our Adjusted EBITDA growth over the same period due to the timing of cash tax payments. At the end of the fourth quarter, we had \$741 million in cash and cash equivalents and 340 million shares outstanding.

During the quarter, our advertising business continued to drive increased performance for our mobile gaming partners, combined with positive early results for e-commerce advertisers during the holiday season. The advertising business generated \$999 million in revenue and \$777 million in Adjusted EBITDA, achieving a 78% margin. Quarter-over-quarter flow-through from revenue to Adjusted EBITDA was 75%, which is slightly lower than our normal levels. As I previewed last quarter, this was due to a step-function increase in our data center costs. Flow-through will normalize from here as we gain leverage on this increase in GPU costs.

Before we get into the financial performance for our Apps business, as Adam mentioned, we're excited to announce we've signed a term sheet to divest our Apps business. Total estimated consideration is \$900 million, including \$500 million in cash, with the remainder representing a minority equity stake in the combined private company. Subject to regulatory clearance, we hope to close this transaction in the coming quarter and look forward to seeing the success of this business under new leadership. Our Apps revenue for the quarter was \$373 million, a 1% decrease from last year, with \$71 million in Adjusted EBITDA representing a 19% margin.

Turning briefly to our annual results, revenue for the year was \$4.7 billion. That's an increase of 43% from last year. Adjusted EBITDA was \$2.72 billion, an incredible 81% increase from last year at an Adjusted EBITDA margin of 58%. Free cash flow for the year was \$2.1 billion, representing an impressive 76% flow-through from Adjusted EBITDA of \$2.72 billion.

This quarter, we withheld a total of 1.6 million shares for a total cost of \$508 million. For the full year, we repurchased or withheld a total of 25.7 million shares for a total cost of \$2.1 billion.

I want to pause here to emphasize this point. During the year, we had \$2.1 billion in free cash flow and spent \$2.1 billion on our shares at a weighted average price of approximately \$83 per share, illustrating the commitment we've communicated to drive shareholder value through prudent capital allocation and an investment in our own shares.

Finally, turning to our financial guidance for next quarter. In light of the transaction we highlighted and the continued focus on the Advertising business, we will provide guidance for each of our segments separately. In the first quarter of 2025, for the Advertising business, we anticipate to deliver between \$1.30 billion and \$1.50 billion in revenue, with Adjusted EBITDA between \$805 million and \$825 million, targeting an Adjusted EBITDA margin of 78% to 79%. We expect Apps revenue to be between \$325 million and \$335 million at an Adjusted EBITDA of between \$50 million and \$60 million.

Now, with that, let's move to Q&A.

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**Operator:** Thank you, Matt. We will now begin the question-and-answer session. *[Operator Instructions]* Our first question will come from Clark Lampen with BTIG.

**Clark Lampen:**

Hey, guys. Good afternoon. Adam, there's a lot to dive into around commerce. But I want to make sure I understood one point from your prepared remarks, which is you're seeing early benefits for a range of different brands in a variety of verticals beyond just DTC marketers. Does that suggest that as you scale the non-gaming business over the course of the year and move into self-serve, as we're addressing more global audiences, it's not going to be just DTC marketers? Or is that an opportunity you've identified as one that works but maybe aren't necessarily capitalizing on in the near term?

**Adam Foroughi:**

Thanks, Clark. You basically answered it for me. When we put the platform together, we strategically made a choice to go after DTC commerce. But what we knew is that if the tech works there, it's going to work on everything.

And so, privately and quietly, as we've been onboarding clients across a wide range of categories, we've been seeing that the models are working there. What I was announcing just a couple of minutes ago is that we're seeing success across any category that comes onto the platform, which gives us a lot of confidence that as we go through the year, release more tools, and really go into more of a self-service and open state, we're going to be in a position to go after the very large set of advertisers in the 10 million-plus range the world over the next coming quarters, years, and decade-plus.

This is something we aspire to do, and we're going to take our time on it, because I do want to caveat that with an important point that ties back to our culture. We're spending quite a lot of time trying to build tools to automate the entire system so that we're not looking at a massive revenue opportunity in front of us and suggesting we have to go hire people to go after it.

We're going to continue to stay diligent and lean, and we're going to use tools, and AI and automation to deliver the same type of solution and success for advertisers that come on board in the future — but make sure they come on board into a platform that hasn't changed anything from the cultural values that have gotten us to this point.

**Clark Lampen:**

OK. Within that same list you talked about, with dashboard automation at the bottom of it, and CTV advertising — could you give us a synopsis of what happened last time around that proved a little different relative to the initial thesis, and now what's changed lately that, at

this point in time, has prompted you to shift focus or focus more on that supply opportunity? Thanks.

**Adam Foroughi:**

Yeah, so I'll say we haven't really focused on it yet at all. When we bought Wurl, the idea was that they're connected to the media companies, and we wanted to get supply online — not too dissimilar from the MAX auction — so that we have access to that supply. Our core business and the vast majority of revenue comes from the DSP side, so advertisers coming to us and us helping them place ads.

But we need supply, and Wurl has brought a ton of supply online. Last year, what we had available to show into the ad slot were gaming ads. That part of the platform is live.

But if you think about a gaming ad on a full-screen television asking the user to go download a game on their phone, it's just not that compelling. We didn't see a single gaming ad on the Super Bowl, right? What we can expect, though, is that consumer ads and DTC commerce — and then across a wide range of categories like fintech and automotive, etc. — as these come onto our platform, extending that type of creative onto the big screen could be quite compelling.

Now, it's not without its challenges. There are attribution problems, there is a lack of a call to action. So, there are difficulties to make this work, which is why we're not saying, "Hey, this is a layup"." It's a challenge.

But if we are able to do it successfully, it will open up another massive channel of performance advertising on the big screen, probably for the first time in history. And that's why I keep mentioning it, because it is a huge opportunity and one that we're going to be going after building into this year.

**Clark Lampen:**

Thank you.

**Operator:** Our next question will come from Ralph Schackart with William Blair.

**Ralph Schackart:**

Hey. Good afternoon, guys. Thanks for taking the question. Adam, I know each quarter can be volatile and unpredictable, but can you give us a sense of what you saw in terms of model enhancements this quarter and how much that may have been additive to growth? And then I have a follow-up.

**Adam Foroughi:**

Hey, Ralph. So, we've broken down the growth vectors across a couple of different facets. One is just ongoing learning, where the model is improving itself. That we expect to capture every single quarter. We haven't seen a slowdown there, and that contributed to growth in the quarter.

There's then another facet that is iterative and incremental improvements on a preexisting model, which sort of happens along the way. We don't break those out. Those are, again, unpredictable and not huge, but they're not those step functions you've seen in past quarters. We had some of that in the quarter as well.

Then you've got these big incremental lifts to a new model. The analogy I've drawn is to ChatGPT 4.0, 4.1, etc. And so, as their models increment, the model gets more complex and smarter. We have the same thing.

This quarter, we did not have one of those. So then you see this outsized growth. And then, the question is, "OK, where did the outsized growth come from?" I touched on this in my talk track.

We've got seasonality in Q4, which traditionally we've never been able to take full advantage of, and that's built around shopping and shopping behavior – and that, this quarter, we were able to take some advantage of that because we're starting to see the e-commerce product really take off. The other part of it is that in Q4, you also have people having more time to spend on mobile devices, especially during the holidays. And during that time, people are more likely to consume and transact in mobile games. So, naturally, Q4 is a very healthy quarter for marketing mobile games.

So, it was a combination of the baseline – which is just our models are continuously getting smarter on their own – some team effort on incremental improvements on the models, and then seasonality across both our existing games business and our new up-and-coming e-commerce business.

**Ralph Schackart:**

Great. Just a follow-up — I'm not sure if it's for you or Matt but just in terms of e-commerce — obviously, a lot of excitement here, and things seem to be going really well. I think before you've talked about it contributing to be a material contribution for 2025.

Just curious if you think that's true, A. And then, B, can you give us a sense of just the potential for incremental growth or how you might frame the opportunity as we're thinking about our models for '25?

Thank you.

**Matt Stumpf:**

We still feel very confident, Ralph, in the ability for us to contribute a material portion of revenue from the e-commerce opportunity in 2025. But again, it's very difficult to predict when and how much that growth is going to come in during the period in 2025. So I think we'll all see it when it comes, and then we'll provide more details then.

**Adam Foroughi:**

And then, what I've given consistently is, look, our business predictably has got 20% year-over-year growth in it. And that's from just the baseline of operating within the category we've always traditionally operated in.

Then you've got these things that can drive material upside. That's really exciting for us. They're unpredictable, and when things are unpredictable, a lot of times people assume they're going to be unpredictably bad. Well, in our business, we've got two things that can be unpredictably really good.

One is model enhancements. We're really, really early still in AI development and research, both inside our company and externally, too. This is not a mature field; it's early in its existence. It's only going to get better. And when our models get better, we've all seen the impact to revenue.

And the other piece is we've always been a closed, managed platform specifically for mobile games. We now have a lot of proof of life in e-commerce. You've seen it on Twitter — yet — a

lot of the noise from customers on the platform. But we have not let many customers onto the platform yet, as we've been in pilot.

As we go more and more open, and start attracting thousands, tens of thousands, hundreds of thousands of customers to come on over the coming quarters and years, the business is going to continue to show compelling growth. We look at it as one single business and better monetizing the billion-plus daily actives that we see. We don't think about it as revenue from each category matters.

**Ralph Schackart:**

Understood. Thanks, Adam. Thanks, Matt.

**Matt Stumpf:**

Thank you.

**Operator:** Moving on to Jason Bazinet with Citi.

**Jason Bazinet:**

Thanks. Would it be possible to share how many people are on your pilot now for e-commerce?

**Adam Foroughi:**

We've not broken it out. I mean, if you do industry checks, look at Twitter. There's enough noise where you can assume it's not in the tens. It's certainly not in the thousands. We're limited by our core team.

It would surprise you how small we maintain our teams. I mean, I do talk about this EBITDA per employee number. We really do take that seriously. We've got around 1,000 people on the entire Advertising business, including all segments of it – Adjust, Wurl and the AppLovin businesses.

The e-commerce go-to-market team is roughly 20 people. So, to give you a sense of how lean and automated we run, that should give you a sense. But that team is not going to be able to manually onboard a lot of advertisers in a short amount of time.

**Jason Bazinet:**

Great. And this goes back to your self-serve comment you made, right? That's really what's going to open up the aperture to onboard more clients.

**Adam Foroughi:**

Self-serve and automated tools are going to be really, really helpful. And so, if you look at just the numbers, what gets us really excited is that in a limited pilot with a small number of customers on the platform, we're already driving interesting revenue from this category. So, as we start opening up, we think it's going to be really impactful to the businesses of our clients..

It's also very, very impactful for the publishers we work with. All its inventory is mobile games, and it adds variety to the advertising that the customer is getting on a mobile game. It also removes constantly the consumer getting an ad on a gaming publisher for a competitor of that publisher.

So, that's really valuable. Because as you think about the growth vectors that we've got just embedded into the business, better monetizing the inventory that we have, but also bringing on more supply, a lot of gaming publishers – the biggest ones – have traditionally been fearful of bringing on supply because they do not want to show their competition's ads in their games.

Well, now that we're able to show that we have expertise marketing to any category, that's going to open up a ton more supply to come online, especially into our MAX platform over the coming years as well.

**Jason Bazinet:**

Thank you.

**Operator:** Our next question will come from Vasily Karasyov with Cannonball.

**Vasily Karasyov:**

Thank you. Good afternoon. Congratulations.

Adam, I wanted to ask you this bigger-picture question. As you are rolling out your e-commerce solution offering, are you seeing already any kind of response from the incumbent competitors? Because if I were one of them, I would look at your success in gaming, right, and would probably think I need to do something about it. So, I was wondering how – what you're seeing. Are you prepared for this? And in general, once you roll it out to full scale, what do you think the industry will look like?

**Adam Foroughi:**

Yeah. So, I mean, look, we don't look at competition all that much. What I will say is that we're not a platform that's taking the same dollars away from someone else. So, let's compare it to social.

If you've got a mattress manufacturer advertising on social today, and driving a certain amount of business, and they come onto our platform, what they're seeing are new transactions from customers that they wouldn't have otherwise gotten to respond to their ads. Now, in our environment, we have a full-screen video ad that captures attention, and they come on to our platform and they're driving incremental sales.

So what does that mean? That means that if they were spending \$5,000 a day on social, they're not going to come to us and spend \$5,000 a day on you in a performance manner and take the \$5,000 over here down to zero. They're not going to be spending \$10,000 a day.

And this is what I keep talking about and referring to as we're expanding the economy. Because it's incremental and entirely performance-based, the advertisers are getting measurable profits from the marketing. That's going to expand their business. They're going to then have to go get more inventory. They're going to then be able to sell more product. And the whole economy will expand without causing any detrimental harm to competitors in the ecosystem.

**Vasily Karasyov:**

All right. Thank you very much.

**Operator:** Rob Sanderson with Loop Capital has the next question.

**Rob Sanderson:**

Thank you. Good afternoon, everybody. I wanted to ask a question on your go-to-market for e-commerce and now new verticals. The playbook seems really simple, and I guess that's part of the strategy.

Can you discuss how the strategy may have evolved since the pilot to now, going through the holiday season? Any key learnings or pivots? Obviously, self-serve is going to be a big unlock. But just how are you thinking about going to market? And then, anything you can share on priority areas for demand generation in 2025? And then, I have a follow-up.

**Adam Foroughi:**

We've been really exclusively focused on mid-market DTC. I call that somewhere in the neighborhood of \$10 million to \$250 million of GMV. These are companies that tend to move fast, and they don't need a big team on the other side to bring them on board.

And the legal process is much shorter. We haven't gone after very large brands, so no one in this pilot are companies that are incredibly large, and, then, we're not focused on the very, very small while we have to manually go after these folks. In the middle, because of the social noise and the feedback loop — the really positive results that customers are getting early in the pilot — we've got customers coming to us. So there's a long, long line out the door, which means we're onboarding as we can onboard.

Nothing has changed through the holidays. The teams were just bombarded with work. They had to work a ton during Black Friday. But other than just the sheer volume that we're trying to process on helping clients get onto the platform, and see that positive results, there's nothing else that's changed or will change until we get the tools out the door that will allow any customer to come in a self-service manner and be able to unlock the same type of result that the folks right now are getting with our managed support.

**Rob Sanderson:**

OK, thanks. And then, how much category-specific optimization is required to move these non-DTC adjacencies? Does AXON figure this out on its own — you start driving conversions, and the model starts to figure it out, and maybe the team can steer it with vertical-specific tweaks? Or, how much product work is required to just keep expanding for these non-DTC categories?

**Adam Foroughi:**

Yeah, I referenced it because it works out of the box. We don't have the resources to be building custom models for every single vertical, at least today. The goal is to continue to build a more complex model that's smart enough to figure out how to market any product. On the other side, that's what we're seeing — where these companies in other categories across a wide range are just plugging in and it works.

**Rob Sanderson:**

So the challenge is really just go-to-market and creating awareness of those types of advertisers and whatnot.

**Adam Foroughi:**

A hundred percent. We'll have a challenge of getting the tools out so we can bring more and more companies on. And then we'll always have this challenge that we're trying to sell a product where they're able to advertise and do it profitably, have it be incremental and have all of that be measurable. So long as that is the result across every single advertiser relationship with our platform, there'll be a lot of positive noise out there about the platform and the offering, which will continue to bring us customers in an organic manner.

**Rob Sanderson:**

All right. Thank you, Adam.

**Operator:** We'll now hear from Jim Callahan with Piper Sandler.

**Jim Callahan:**

Thanks, guys. Congrats on the nice report. We've been getting some questions on how you're servicing some of the extra e-commerce demand. Can you talk about what kind of inventory is converting best and if, perhaps, this is different from the inventory that converts better for gaming?

**Adam Foroughi:**

It's all the same inventory. It's full-screen ad. It sits on top of the billion-plus daily active users playing games, but we don't have access to differentiated inventory. It's a unified auction.

Sometimes, an ad for a mattress will be the one that's selected. Sometimes, an ad for Candy Crush will be the one that's selected. It all depends on what the model does. But the end user and the supply are all the same across all categories.

**Jim Callahan:**

Got it. OK. That is helpful.

And apologies if you talked about this in the beginning — I was having some audio issues. Looks like you're rolling out 28-day models. Has there been any early feedback on the gaming side? And could that drive incremental spend this year?

**Adam Foroughi:**

Those have been out for a couple of quarters now. And obviously, if you talk to game developers across the board, models tend to work really in a compelling way for all of them. The longer models are the most performant models that we deliver. And so, they have driven up the ability for the mobile customer to spend more profitably on our platform over the last couple of quarters.

**Jim Callahan:**

Got it. Thank you.

**Operator:** We'll now hear from James Heaney with Jefferies.

**James Heaney:**

Great. Thanks, guys, for the question.

One of the big questions we've been getting from investors is just around the take-rate dynamics between gaming and e-commerce. I understand that you don't charge a fixed rate like other adtech platforms. But just would be curious how to think about just the overall mix of the business as you go more toward e-com. Does that have any impact on the take rate? And then, I had a follow-up.

**Adam Foroughi:**

Look, as we get better at monetizing the inventory that we buy, the take rate naturally goes up. On the flip side, we don't optimize the take rate — we never have. The system is willing to buy a user at 1% or 99%. It really doesn't matter. It's going out and buying users that it thinks it can out-monetize relative to what it has to pay, regardless of what the end result is.

But it is important to understand that there's a market here. We're paying the highest price the publisher can get from anywhere. And the better and better we get, the stronger our business is going to get because that take rate can expand.

**James Heaney:**

That's helpful. And Matt, now that e-commerce is obviously becoming a much bigger percentage of your business, can you just talk about the seasonality and how we should be thinking about that going forward as it relates to both the revenue growth and the expense profile?

**Matt Stumpf:**

On the expense side, it shouldn't affect us much whatsoever. Obviously, the expenses are primarily data center costs and payroll. So, those costs are more driven by usage. And we've communicated in the past that as we grow revenue that we're expecting roughly 10% on an annual basis. It's that drag from incremental data center costs as we grow revenue so there shouldn't be much fluctuation there.

And then, on the e-commerce side of the business — as we grow and e-commerce becomes a larger portion of the overall pie and as we start to move toward it being a material portion of overall revenue — obviously we will be subject, then, to e-commerce seasonality. And everything that we've talked about in the past, obviously Black Friday and the holiday periods, we'll see slightly larger periods of revenue.

**James Heaney:**

Great. Thank you.

**Operator:** Chris Kuntarich with UBS, please go ahead.

**Chris Kuntarich:**

Great. Thanks for taking the question.

Can you just talk a little more about the Q1 sequential growth drivers for the e-commerce business? Should we be thinking about this more as same-advertiser spend or more driven so by new incremental advertisers?

**Adam Foroughi:**

Well, we haven't broken out e-commerce, right? But 1Q – in a traditional advertising business – typically, 1Q steps down. You have two less days, and you've got a seasonality effect in the fourth quarter. So, we would have that for sure in the e-commerce category across the current advertiser base. If we didn't add a single new advertiser, then by definition, that category couldn't expand in Q1 versus Q4.

But as a whole, we're guiding to expansion in the business, even in Q1 against Q4. And frankly, that's just because our business is growing really quickly right now. And we're guiding that way implying that, I think, it was a 4% quarter-over-quarter guide up with two fewer days. So you have 2% less days. Because we're confident that just as a baseline level, regardless of seasonality or any bump that we had in Q4, you're going to have continued growth into Q1.

**Chris Kuntarich:**

Got it. And just one quick follow-up. As you think about the cohort of e-commerce advertisers that have been engaging with you for a longer period of time versus some of your newer ones – what are you seeing from their willingness to spend and to hit higher daily spend thresholds?

**Adam Foroughi:**

It's volatile only because we got into the category right into Q4. So, a lot of these e-commerce companies go bonkers going into Black Friday and the holidays. And then, we're even learning the business model right now. As you go into Christmas time, they're sort of out of inventory, and then they've got to go replenish inventory.

And so, they'll spike, they'll drop, they'll come back. But ultimately, we're a performance marketing business. As they get inventory replenished and they get into Q1, they ramp back

up. And so, we see volatility just due to the nature of the business, but they see great results on the platform.

So, that means, over time, as you normalize for that seasonality, they'll just be consistent lines of revenue for us that should be growing. Not only should be growing because of their success on our platform – helping their businesses become larger, in which case they'll reinvest more into marketing – but also because we're really early on this. It's only been a matter of a few months so far. We're still in one of the earliest versions of our model.

That model in this category is a couple of years behind on the evolution of a model to the gaming model. So we've got a long runway of a long roadmap of things to do to improve the gaming side, and the gaming models are years ahead of, now, the e-commerce model. And so, we're playing catch-up to the efficacy of that gaming model. Our platform is only going to get better and better as we go on and go forward from here.

**Chris Kuntarich:**

Thank you.

**Operator:** The next question comes from Omar Dessouky with Bank of America.

**Omar Dessouky:**

Great. Thank you.

I'm intrigued by this notion that your technology works for many different types of advertisers. Everyone is calling the non-gaming "e-commerce," right? And within e-commerce, there are different types of categories – some products, subscriptions, things like that.

You put out the Axon Pixel so e-commerce merchants have that on their website now to help you attribute. Is that enough to access all of these different types of e-commerce advertisers? So, really, the question is – is all of your technology deployed at least on the attribution side to access that 10 million advertisers in the world? OK, that's the first question.

And then, given that your AI has shown such efficacy, is it now going to start working for in-app installs for nongaming categories – non-gaming apps? Is that now a growth segment

in '25? Because I think, to date, that's been a very, very small part of your business, and I'm wondering if that's about to inflect as well.

**Adam Foroughi:**

It's a great question. So, the first one I think you said is that have we deployed all of our technology for attribution and being able to bring on customers on the platform. We certainly have a pixel integration. That's going to be consistent for any website to be able to advertise on our platform.

But I wouldn't say that in any aspect of this business that we're at maturity on all the technology that we can release. You can always do more to get to more attribution that's accurate with advertisers. And so, we're working on continuously adding tools to that.

I will say, though, that it obviously works. It works in a category of websites and e-commerce. We're seeing it work broader than that – in other categories of non-gaming on the web. And so, any type of customer, once we're self-service, will be able to come onto the platform and advertise as long as they have a website.

Then, you've got other types of advertisers. You've got game advertisers and you've got non-gaming app advertisers. And then, you've got websites who also have an app. Those last two, we have to do work to bring online, but it's work that we'll be doing throughout this year.

So, it's not something where, I think you said, we'll inflect in '25. It's not something that is a '25 thing; it's just something that's in our roadmap that we're actively working on. And we do expect that then opens up even new categories as we go into later through this year and then next year and beyond.

**Omar Dessouky:**

Thank you.

**Operator:** Moving on to Martin Yang with Oppenheimer.

**Martin Yang:**

Thank you for taking my question.

First question is for Adam. Since you took oversight of the HR function last quarter, what are the changes you can talk about on recruiting, streamlining the operation? Anything worth highlighting to us?

**Adam Foroughi:**

Look, I mean, my focus has been on streamlining the team and processes and getting really focused. We did announce the App sale we're working on as well in our talk script. And really, this is all about just that we see a lot of opportunity in front of us. We have a long roadmap, a lot of things to do.

And when you have that organic opportunity, you've got to get everyone focused on it. So, it's really been around streamlining. I mean, we're one of the most financially lucrative businesses to be constantly announcing layoffs.

Now, we don't want to constantly be doing that. But since I took over HR, my job was to go to areas of the business that are not perfectly aligned with these organic opportunities. And let's start shutting those so that we can really narrow in and focus on what's in front of us. We're really getting to that place, and once we get there, I think there are going to be even more exciting times here.

**Martin Yang:**

Thank you. My other question: You talk about non-gaming helping with supply. So, do you expect market share gain on mediation? And how will the additional supply over time help the gaming business?

**Adam Foroughi:**

Well, look, our market share is really high, OK? So, let's set aside market share; let's just talk about share inventory. We're getting new game publishers all the time that run game ads. We're the best at monetizing it at this point. And so, that aspect of the business growth in gaming supply is there.

Now, that's just sort of organic and natural, but it's not a step-function opportunity. What I was referring to is if you look at the in-app purchasing apps, most of them, where a lot of consumer time is spent in gaming, don't actually run ads. They don't run ads because if they can monetize a user at really effective rates with in-app purchasing, why would they

run ads to their competition? King was a perfect example of this, and they used to report underneath Activision when they were pre-acquisition. They launched ads with non-gaming advertisers and created a lot of incremental revenue doing so.

Traditionally, in the mobile gaming mediation market, the vast majority of ads were for games. They were competitive to the publisher game. As we execute on bringing on more and more advertisers on non-gaming categories, we think that it's going to be pretty reasonable to sell the MAX product in our DSP platform to these gaming publishers who are monetizing predominantly or exclusively with in-app purchasing — bring on that supply, and that will create another expansion vector.

**Martin Yang:**

Thank you.

**Operator:** Alec Brondolo with Wells Fargo has the next question.

**Alec Brondolo:**

Hey, guys. Thanks so much for the question.

I think you're describing a situation where the business is rapidly transitioning from demand-constrained to supply-constrained as you expand the aperture of categories that you service. Acknowledging that some games could increase their ad load and that could increase available supply, how do you think about the amount of spend growth the current mobile gaming inventory base could absorb? Could the inventory be twice as valuable, three times as valuable?

**Adam Foroughi:**

Yeah.

**Alec Brondolo:**

I think that's kind of the constraint on growth going forward.

**Adam Foroughi:**

I don't think we're saying that's a constraint. I mean, in the last year, supply has been pretty constant. And I think we grew 80% to 90%.

We're still pretty early on both sides. On the demand side, we're just getting into areas that are going to help us much better monetize our inventory. And we've given out examples in terms of ARPDAU that some of the largest social properties are able to monetize that being significantly higher than ARPDAU that we monetize this audience in today. And yet, our ad unit is a full-screen video. It requires engagement and viewing with the video, and it's really high impact.

The only reason we're not better monetizing today where we would say maybe we're supply-constrained is because we don't have every type of advertiser across the world on our platform yet. Over the coming quarters, years, decade-plus, as we onboard more and more advertisers — we're talking millions-plus — that's going to allow us to have a lot more demand density.

Our algorithms are only going to get stronger. Our data footprint is only going to get stronger. And forget supply increases — same exact supply. Billion-plus daily actives are just going to be better monetized. There's a long runway of growth there.

The supply side is just gravy on top. It's really just an extra area that we think is going to be given to us for free. That's going to come. We certainly don't think it's going to be anywhere near as impactful as the demand expansion that's going to drive our growth.

**Alec Brondolo:**

Thank you so much.

**Operator:** Moving on to Arsenije Matovic with Wolfe.

**Arsenije Matovic:**

Hey. Thanks for taking the question.

What is the thought process on bringing Audience+ out of pilots and into self-serve? What have you learned with the pilots that will help you improve or make changes to the solution before making it self-serve? And what's a good point to look at in 2025 on when we should expect it to go self-service? And then, just one brief follow-up.

**Adam Foroughi:**

We'll launch self-service when we're ready for it. The most important keys there are, one, we're going to have tools that automate every step of the process, including AI agents that are helping the advertiser get on board and get going — that really helped them through the process so that they feel like they're engaging with human beings, but they're engaging with bots and they're getting going.

The other key piece is that you build a lot of tools and content moderation controls when you open up a platform as big as ours. And at this point, in the advertising realm, you've got Facebook, you've got Google — we're now the next really big platform out there. We open that up and we would get a lot of fraud coming on board if we didn't have a lot of tools written to prevent that. So we're going to take that really seriously. We'll be conservative.

I don't know that we have any need to accelerate growth right now. We're growing really, really quickly as it is in controlling the pace. But we're developing all these tools in the background. And once we're ready, we'll bring it out. We'll let you all know, and we think it'll be very impactful, — not just for a moment in time, but that will compound over quarters, years, and decade-plus.

**Arsenije Matovic:**

Got it. And thanks for providing the segmented guidance.

I just want to understand the App sales — is it going to be tranced out where you roll off a few studios over time throughout the year? Or is it once it closes, all 10 studios are off, no more Apps revenue, and that's kind of the way the mechanism will be? And that would happen when? Would that be at the end of the quarter or? Trying to understand the timing dynamics for —

**Matt Stumpf:**

Yeah.

**Arsenije Matovic:**

Apps revenue modeling for this year.

**Matt Stumpf:**

We're going to be selling the entirety of the Apps business, Arsenije. So, that would all come off of the P&L and the balance sheet all at once. And then, timing, as I mentioned, I think, in my talk track, we're targeting to close within Q2.

Obviously, we may be subject to regulatory approval, so that timing could change slightly. But that's where we're targeting,

**Arsenije Matovic:**

Got it. Thank you.

**Matt Stumpf:**

You're welcome.

**Operator:** The next question will come from Eric Sheridan with Goldman Sachs.

**Eric Sheridan:**

Thanks so much for taking the question, guys.

I wanted to go back to one of the five initiatives you talked about for 2025: personalizing ad experiences. How much of that initiative can be done with what's already been built today versus incremental investments you need to make against the goals of personalization over the medium to long term? And from the outside looking in, what should we be watching in terms of how you might implement that and how it might be rolled out more broadly in the years ahead?

Thanks so much.

**Adam Foroughi:**

Thanks, Eric. Look, this is all research and development right now. And just to break down what it means – today, if you've got a game, let's just use Candy Crush again as an example, a human being is uploading 20 ads.

The end user that sees ads for the Candy Crush campaign run through us sees one of those 20 ads. In the middle, the AI determines which one of those 20 to place. Now, that's not very personalized. It's very static, and the user seeing the exact same format of ad and the same exact type of video as all the other users who are seeing that campaign.

Now, with generative AI and large language models, you can imagine running those top creatives through a model and creating many variations. Facebook and Google are talking about this too — generative AI-enabled ads. It's something we're working on. We think it'll be very impactful in driving consumer response to the ad unit

It's trickier than a text ad because we've got a full-screen video experience. Plus, a lot of times, we've got HTML, and in the gaming realm, we've got even a mini game inside the HTML. So, there's a lot of work to do to personalize that experience. And then, there's a lot of work to do to build a model that can do it automatically within the constraint of the GPUs that we have.

But it's something that we're working on and we think will be impactful when it rolls out. And it's something that's in focus for us this year.

**Eric Sheridan:**

Thank you.

**Operator:** Adam and Matt, we have time for one more question. It'll come from Bernie McTernan with Needham and Company.

**Bernie McTernan:**

Great. Thanks for taking the question.

Maybe just a follow-up on Eric's question on personalization. From some of the checks that we've done, it seems that e-commerce brands are largely using social ads within mobile gaming. Is that an opportunity for you guys that you can help actually make games or ads that look more like mobile gaming ads for e-commerce and other verticals?

**Adam Foroughi:**

Yeah, possibly. I mean, look, we hope not to be the ones deciding that. We hope the AI and the machines are the ones deciding that. And the beauty is once you're in a machine-created realm, you're going to be able to create way more variations than the human being can.

So whether it's an e-commerce product somehow gamified in the advertisement or something we can't imagine right now — in theory, the machine is going to be able to do that. And the advertiser and the consumer will gain the benefit of all those new ad variations that will be outputted out of our system.

**Bernie McTernan:**

Got it. And then, just one last one for me. Any feedback you're hearing from gaming companies as you move into e-commerce and other verticals?

**Adam Foroughi:**

I mean, look, the gaming companies are seeing better performance on our platform every single quarter. So, they're obviously happy. We're a catalyst for their growth and really a requirement for their growth at this point.

The publishers themselves, there's been some social commentary on this — when they start seeing more and more of their impressions shifting to e-commerce, they absolutely love it. If you're a game publisher, your worst nightmare would have been "I'm going to monetize my game with all my competition's ads." That just sucks as an end product, but that's all they had.

And so, we allow all of our MAX publishers to see the advertising that's run. Some of those publishers have commented about the number of impressions that are shifting to non-gaming categories. When you see that commentary, they're absolutely excited about it.

**Bernie McTernan:**

Thank you.

**Operator:** And again, this concludes the question-and-answer session and the webinar for this quarter. We thank you all for joining us and look forward to seeing you again next quarter. Take care until then.

**Adam Foroughi:**

Thanks, everyone.

**Matt Stumpf:**

Thank you.