

## **Q4 2023 AppLovin Earnings Presentation**

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

Welcome, everyone, to the AppLovin earnings call for the fourth quarter and year ended December 31, 2023. 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 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 regarding our products and services, market expectations, the 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 fiscal quarter ended September 30, 2023.

We will also be discussing non-GAAP financial measures. These non-GAAP measures are not intended to be a substitute for or superior to our GAAP results. Please be sure to review the reconciliations of our GAAP to non-GAAP financial measures in our earnings release and shareholder letter available on our Investor Relations site.

This conference call is being recorded, and a replay will be available at 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 & Chairperson:**

Welcome, everyone, and thank you for joining. We're thrilled to report another outstanding quarter in Q4. We surpassed the high end of our guidance and established a consistent pattern of exceptional performance throughout 2023. Reflecting on the last year, it's remarkable to consider how much we have grown and evolved in just one year.

After a challenging 2022, characterized by stagnant growth, we refocused on growing our existing business and investing in new initiatives. I am immensely proud of our team's dedication and hard work, which has resulted in our software platform revenue growing by

76% in 2023. Despite a challenged economic landscape and mobile gaming sector, we have continued to grow. This is a clear testament to the strength and potential of the updates we have made to our AI advertising engine, AXON.

When we embarked on our public journey in 2021, software platform revenue was nearly \$700 million. Now, only two years later, we have reached close to \$2 billion. We also forecast that we would have significant margins on incremental revenue for our software business.

I'm proud to state that in Q4 2023, our incremental revenue had an approximate 80% flow-through to Adjusted EBITDA, culminating in record cash flows. This growth trajectory underscores our robust financial health and positions us favorably for diverse opportunities to enhance shareholder value, like ongoing share repurchases.

Now looking ahead to 2024 and beyond, we continue to remain bullish about the potential of our core AI technologies, which stand among the most advanced across all markets. Our focus on leveraging these technologies in the CTV space and Array in the carrier OEM market is just the beginning. We are poised to explore and expand into new applications of our AI technologies in the coming quarters and years, which has the potential to significantly broaden our TAM and opportunities.

Now I'll turn it over to Matt, who will deliver his first financial summary as our CFO. We are incredibly fortunate to have him in this role. Thank you once again for your unwavering support on this journey.

**Matt Stumpf, Chief Financial Officer:**

Thanks, Adam, and good afternoon. I'm pleased to step into my first earnings release as CFO with such amazing financial results. First, I'd like to thank the team for having executed so well this quarter and making my job easy.

In the fourth quarter, we exceeded the high end of our guidance for both revenue and Adjusted EBITDA, achieving \$953 million in total revenue and \$476 million in Adjusted EBITDA. That's an impressive 50% Adjusted EBITDA margin.

We also exceeded analyst expectations this quarter by beating the consensus averages for both revenue and Adjusted EBITDA. Adjusted EBITDA was nearly 10% higher than expectations. Our revenue grew by 36% from the same period last year and 10% from last quarter.

Optimization efforts within our Apps business in the first half of the year resulted in a slight decline in revenue, but led to improved EBITDA margin. We still grew revenue every quarter this year due to the tremendous performance of our software platform and continued strength and growth in the advertising market. Our Apps portfolio continues to perform well with 5% growth from last quarter while maintaining a consistent 15% Adjusted EBITDA margin.

Our software platform had another excellent quarter. We achieved revenue of \$576 million and Adjusted EBITDA of \$420 million. That's a 73% margin. This represents nearly an 80% flow-through from revenue, given our relatively fixed cost base and continued cost discipline. All of our businesses were able to grow their revenue this quarter without discovery of the primary driver of our success.

Our growth stemmed from a combination of market factors and our execution, including a strong holiday season, growth in the mobile advertising market, a market shift to real-time bidding, early contributions from our Array business, enhancement of our technologies like AXON, expansion of our advertiser base, and growth in advertiser budgets. The combination of these factors is contributing to improved efficiency, leading to compounding growth for our company and our partners in the industry.

Turning briefly to our annual results, revenue for the year was \$3.3 billion. That's an increase of 17% from last year. Adjusted EBITDA was \$1.5 billion. That's an incredible 41% increase from last year at an Adjusted EBITDA margin of 46%.

Over the last five years, we've been able to achieve remarkable growth in our software platform business. We grew from \$136 million in Adjusted EBITDA in 2019 to nearly \$1.3 billion this year. During that time, we had roughly 60% to 70% Adjusted EBITDA margin. Free cash flow for the year was \$1 billion, representing an impressive 69% flow-through from Adjusted EBITDA of \$1.5 billion. Going forward, we hope to retain roughly 70% flow-through on an annual basis, with quarterly fluctuations due to working capital and tax payments.

During the year, we extended the maturity of our term loan to 2030, while at the same time reducing our interest rate to continue to manage our ongoing costs. In addition to our debt management activities this year, we also repurchased and withheld a combined 54.3 million shares in 2023. After considering share compensation, this represents a nearly 10% reduction in our total shares outstanding. Through the combination of free cash flow generation and share management, we hope to continue to generate significant long-term value for our existing and our new shareholders.

Our Board has also approved an increase in our share repurchase authorization by \$1.25 billion. We plan to use this to continue to manage our outstanding shares.

Turning to our first-quarter 2024 guidance. We hope to deliver between \$955 million and \$975 million in revenue in the first quarter. Adjusted EBITDA is expected to be within the range of \$475 million and \$495 million. That represents an Adjusted EBITDA margin of between 50% and 51%. We believe these results are achievable given the various growth factors I highlighted earlier, while taking into account that the first quarter is a seasonally low period for the industry.

In conclusion, we're very happy with our financial performance this quarter. And for all of 2023, as a result of a strengthening market, combined with our team's execution. We look forward to continued growth over the coming year as we continue to expand our business into new verticals and industries such as non-gaming and CTV.

Now with that, I'll hand it over to our moderator to take us through Q&A.

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**Operator:** Thank you, Matt. *[Operator Instructions]* Our first question is going to come from Omar Dessouky with Bank of America.

**Omar Dessouky:**

Great. Thank you for taking my question.

On the one hand, you're not giving calendar year '24 guidance. But on the other hand, you did talk about in your letter that you're working toward expanding your software platform reach in 2024. So I was wondering if you could unpack those two things for us, especially the software platform reach part? Thank you.

**Adam Foroughi:**

Thanks, Omar. I'll start with the business side and then Matt will jump into the financials. But ultimately, we launched AXON 2, the upgrade of our AI platform, in Q2 last year. From that point to Q4, the software business grew almost 50%.

And obviously, you know the impact on margins. We've talked about a huge flow-through in dollars – the incremental dollars of growth coming in at 80% roughly in the quarter.

This is an early-stage technology. It's only been live for a little over half a year. It's growing exceptionally quickly, it's very high margin. We think the applications of this core technology are much broader than what we do today. And the team is continuously improving the technology, too. So we're very excited about where it can go.

Ultimately, when you've got a business that's growing that quickly on a technology that's that new, at the margins we operate at, it's very hard to understand going forward exactly where we're going to land. But we've never been more excited about the growth prospects we've got in front of us.

**Matt Stumpf:**

And just to echo what Adam said, Omar – given the difficulty in forecasting and understanding the impact of launching a new technology like we did with AXON 2, it's very difficult for us to forecast what the financial impact of that is. So, for that reason, we don't provide longer-term guidance.

**Omar Dessouky:**

And then just a quick follow-up. Facebook called out Chinese advertisers – both e-commerce and video game publishers – as one of the reasons their advertising outperformed in Q4. I didn't see that mentioned in your shareholder letter, and I was wondering if that's something you've seen at all or perhaps expecting in the first quarter?

**Adam Foroughi:**

No. We don't have any specific concentration or change of mix, and we invest lower in terms of Chinese partners to rest of world than I think they do. But this is something we called out during COVID. China lockdown was a huge area of inefficiency in the market.

So we've seen the market really hit a trough last year or two years ago, and then start recovering late last year. A lot of that was because Chinese developers were back in office for a year, coming back online and getting efficient again. And we've signaled that we thought eventually that's going to help bring efficiency back to the market, because while we don't invest heavily on the revenue side, there is a lot of content that's created out of

China that comes out west and does benefit advertising-related businesses. And so that was a good trend that we've seen continue to expand.

**Omar Dessouky:**

Thank you very much. Appreciate it.

**Adam Foroughi:**

Thanks, Omar.

**Operator:** Our next question will come from Tim Nollen with Macquarie.

**Tim Nollen:**

Hi, guys. Can you hear me OK?

**Adam Foroughi:**

Yeah. We got you, Tim.

**Tim Nollen:**

Great. Thanks. I wanted to ask about some of the big changes coming in the mobile ad landscape this year — namely the DMA, which comes into effect in a couple of weeks, three weeks time.

And also the deprecation of the Google Android ID, and then iOS 17.4 — a lot of things in there to wonder about how it might impact the mobile ad markets here. I wonder if you could comment on those, please?

**Adam Foroughi:**

Look, I think we've said this before when it comes to privacy, Tim — you don't know dates on a lot of these releases. So when you're talking about Google, who knows when the actual rollout will be. Cookies were a lot later than expected and still in a very small percentage rollout. So we don't know when these changes will come. We don't know the exact impact of the changes.

What we do know is that, one, the way we've operated traditionally – we're very entrepreneurial, we're very nimble – and we've been able to adapt very well whenever there have been these changes. And number two, we run much more of a contextual behavioral model than a lot of properties on the open web.

And so, because we don't interface as much when it comes to really sensitive user data with the consumer, we're in a much better starting point than a lot of other businesses, too. So, those two things always give us confidence that, no matter what the change is, we're going to be able to navigate.

**Tim Nollen:**

OK. Could I ask a follow-up on the DMA, which would be, do you think allowing much lower app store fees in Europe would be a positive for app development, which might then lead to more ad spending down the road? Or do you have any opinion on the Apple response to be adding this extra \$0.50 charge?

**Adam Foroughi:**

The way Apple responded makes it not really a great business decision to go off store because one thing people want to talk about is there is organic value to being on store. So if you take the 30% fee and figure 10 to 15 points of value from organic rank, then you're down to 15 points of cost savings and the expense to the developer that they – all the different layers amount to roughly 20 points. So, there's no economic reason to go off store today.

We think over time, though, there's enough global pressure and there's going to be enough movement from the courts over time that are going to continue to scrutinize this in different jurisdictions where eventually there could be real economic benefits to content developers. And if that happens, we've always said that's going to greatly benefit the advertising solutions.

If you just think about the dollars on our platform, the majority are transacted to drive IP today, and the dollar is taxed down to \$0.70. If that one day went to 85-15, you could go take that and say, every developer would make 20% more? And, how much of that are they going to be willing to put into marketing? A large part of it – which would be greatly beneficial to a platform like ours.

**Tim Nollen:**

Yep. Great. Thanks, Adam.

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

**Jason Bazinet:**

Thanks. This may be a long-winded question, but I can't help but look at your stock and the multiple seems so low given the attractiveness of your business, and the growth, and the free cash flow conversion. And I saw the \$1.2 billion authorization on buybacks. But I don't think you bought back any stock in the quarter, and yet your guidance is good – you knew it was going to be above the Street.

So my first question is: can you comment on the tactical pause in the fourth quarter on buybacks? And then my second one related is, do you think your multiple is low because of the two divergent businesses that you have between the software platform and first-party games? And does that still make sense to hold these two businesses together, given that one is phenomenally attractive and one is just good? Thanks.

**Matt Stumpf:**

Yes. I'll take the buyback piece first. So, Jason, just from a strategic view, our approach to doing buybacks is to do directed larger repurchases rather than buy back in the open market. That's how we feel we can have the most impact and the opportunity didn't present itself in Q4 to do a large buyback from an existing shareholder.

So to the extent that it does present itself in the future, that's the approach we're going to take.

**Adam Foroughi:**

Yeah. And we just did authorize the big buyback. We're going to be committed to it going forward. We do think as a company like ours where we're generating this much cash flow, we should be able to continue to facilitate buybacks and return value to shareholders in that manner.

When it comes to the question of where we trade, why we trade at a certain multiples we trade at – well, we can't answer that. We're not traders, and it's very hard to unpack. Does

mobile gaming discount the overall company valuation? We don't frankly believe so, because the core software business is growing so quickly, and we break out financials.

So it's pretty easy to just say, let's look at the software segment. We think the harder part when it comes to our business is that we were in a no-growth period in '22. We've had to come off of that and really focus on execution, which is what we ask of our teams. And now we put together four subsequent quarters of stellar performance.

As you look at that software segment, there's not a lot of software businesses with 70%-plus EBITDA margin growing at the rate that ours is – I mean, rule of 140, 150, or whatever. And so, it's just an astounding number, and then we convert a very high percentage of that EBITDA to cash flow as well.

We think because the technologies are new, it will take a while for investors to understand what we already see – which is not only is this is very powerful technology in our core market; we've been able to grow much greater than the market because this technology is efficient, and in conjunction with that, our partners are growing much faster, too.

And you see some of these games that are in the market today at the top of the top grossing – they depend on our marketing channel and they're growing because our solutions become more efficient. That's in our core market.

And now we see applications of that technology in multiple adjacent markets. We think we're going to be able to go apply it to – not only what we've talked about, but some other applications, too, that we'll talk about in the upcoming quarters. That's what gets us really excited.

So we're committed to buybacks because we see value and are able to unpack the value much more easily today than investors are. And we hope to articulate that narrative in the coming quarters.

**Jason Bazinet:**

Thank you.

**Operator:** We will now hear from Ralph Schackart with William Blair.

**Ralph Schackart:**

Hey. Good afternoon, Adam. Thanks for taking the question.

First one, I know you've talked historically about AXON 2 extended and beyond just the gaming vertical. But maybe give us an update on the progress. You're starting to get contributions outside of the gaming vertical. And then I have a follow-up.

**Adam Foroughi:**

Thanks, Ralph. Non-gaming is growing faster than gaming; it's smaller. So obviously, there's more room to grow.

It's going to be a commitment of ours to broaden out the platform. We've talked about broadening out to non-gaming — that's a component. We've talked about Connected TV — that was an application that's in progress right now, expanding our reach to the television device. We've talked about delivering marketing solutions to carriers and OEMs powered by AXON 2 — that's in progress as well.

We're starting to see, as Matt touched on in his script, some benefit from both those initiatives. And we think there are not only those applications but more beyond that, that we'll talk about in the coming quarters as well. And so, we're very excited about not only what our solution can do within our core category, but the expansion opportunities that presents us.

**Ralph Schackart:**

Maybe you could provide some context on what's really outperforming versus expectations. I'm sure there's an element of conservatism in wanting to guide. But just frame for investors, why is AXON 2 doing better perhaps than you expected?

**Adam Foroughi:**

Look, I mean, what people don't fully understand about our platform, and I guess we don't tend to articulate, is the MAX business sits on top of over 1 billion daily active users — 1 billion users playing games. So, if you think about In the U.S., roughly 170 million daily active users.

So you're talking about the majority of American adults are playing games daily in mobile apps, and we're able to service them. Historically, in this channel, the monetization has been

very low per 1,000 impressions compared to what the social networks and the search engines and the video apps have gotten to. And those companies had very sophisticated technology and a lot of data.

We've been able to get to a point now where our technology has become much more efficient. So, we're just monetizing this audience more effectively. What gets us really excited is we're a couple of quarters in.

We're really starting from a low monetization point. The whole market is monetizing these users at a low point. When you have 170 million daily actives in the states, these aren't people who are just playing mobile games — there's just no way. It's a very, very widespread audience, predominantly adult, that are doing other things.

And as these technologies get to a point of predicting more broader application of advertising to this audience, not only will it get more efficient, it will expand out the reach for a company like ours to other verticals, and it will create more efficiency for the publisher — and we should grow everything. That's what gets us really excited is it all comes down to efficiently monetizing a huge audience that we have access to.

**Ralph Schackart:**

Maybe if I could just sneak one more in. We get the question all the time: in simple terms, if you could explain what's the main difference between AXON 2 versus AXON 1. Maybe just for simplicity sake, for investors, frame what's the biggest change or observation you see on your end?

**Adam Foroughi:**

Yes. It's just better. The technology is built to scale better — it's more efficient, more effective. These are predictive technologies at the end of the day.

I'm drawing the analogy to ChatGPT. And the only reason I do that is because we can all type in a box and get a result. We all know that ChatGPT 3 to 3.5 to 4, 4 was better than 3.5, it was better than 3, right? But we could have seen that.

What we can't see in a black-box algorithm is a typed input and a result. But what we can see is that what we're trying to predict is, show an advertisement to a consumer for some advertiser and drive value to the advertiser. There's a whole bunch of predictions along the

way, and AXON 2 makes them better than the prior version. And that creates a lot of efficiency gain, both for our business and that of our partners.

**Ralph Schackart:**

OK. Thanks, Adam.

**Adam Foroughi:**

Yep.

**Operator:** Vasily Karasyov with Cannonball has the next question.

**Vasily Karasyov:**

Thank you. I have two. First one, can you talk in a little more detail about different trends for domestic and international markets that you see and revenue or metrics? Is there any difference? Do you see different penetration and customer response?

And then the second one is, given what you said about extending the software platform, how sustainable are the EBITDA margins in that segment that we saw in Q4? Thank you.

**Adam Foroughi:**

On the first, we don't see a whole lot of difference domestic to international. There's consumption that drives our value and there's efficiency of the algorithms and partners that are advertising on us that drive the value. Other than one-off holidays in international locations that would alter revenue percentages, if you assume the period of engagement is consistent, then the revenue mix would also be consistent.

And the other core thing to always remember about our business is, all of our advertising is 100% performance-based. So an advertiser that wants a specific performance of yield in the U.S. is willing to get the same yield in Turkey or in the U.K or Germany or Japan. When they advertise with us, they are predominantly global advertisers. So we don't tend to see much variance there.

**Matt Stumpf:**

On your second question, Vasily – in terms of margin we haven't seen any significant difference. As Adam mentioned previously, it's relatively small at this point, the non-gaming component of the business. But as we push into these other new verticals and industries, we don't see any material difference between the margin profiles of the existing mobile gaming business or non-gaming.

**Adam Foroughi:**

Yeah. We've let you all know that when you see roughly 80% flow-through, we don't really expect that to be different as the software business continues to grow. The flow-through should be a really high conversion to EBITDA.

**Vasily Karasyov:**

So, Q4 is indicative of what we should expect next year? Every quarter?

**Adam Foroughi:**

On the incremental revenue growth, yes.

**Matt Stumpf:**

Yes. If you look at just our guidance, Vasily, we're guiding to a similar position in the 50% to 51% overall EBITDA margin.

**Vasily Karasyov:**

Thank you so much. Congratulations.

**Adam Foroughi:**

You're welcome.

**Operator:** Matt Cost with Morgan Stanley. Please go ahead with your question.

**Matt Cost:**

Hi, everybody. Thanks for taking the questions. Two, if I could.

From a real-time bidding perspective, how much of the market has shifted toward real-time bidding at this point? And can you talk about the financial impact that will have when that process is complete, and how investors should think that through? And then I have a second.

**Adam Foroughi:**

Yes. On the first one, Google announcements on their move to go predominantly real-time bidding in mobile mediated auctions came out – I think it was some point in October. And they had a commitment to do so by January. But throughout Q4, the vast majority of the market was traded in a programmatic real-time manner.

And the impact is twofold for a business like ours. One is we've operated the MAX platform not charging anything to advertising companies when they're not real-time bidding, but charging a take rate of 5% when they are real-time bidding. And we've disclosed that number before. That's just a consistent fee that we charge to bid on our platform.

Now with the majority of the market moving that way, that's a good economic development for the MAX platform, and that obviously benefits our software segment. On the second point of the impact, what real-time bidding does is clear an auction faster. There's less consumption. So there's just less infrastructural load in order to process a real-time auction versus a waterfall auction, and there's quicker ad delivery.

And by delivering an advertisement more quickly, the publisher benefits because they can show more advertisements to their consumer whenever they want to, instead of waiting for an advertisement to clear – it clears faster and more ads show. By doing that, it creates a world where the publisher starts yielding more in an efficient manner, which can drive up their ad revenue per user.

And then the whole formula that we operate on is the publisher makes more, they reinvest more in user acquisition, their business grows, and we enable that growth, and our business grows with it. So we're only seeing positives from this transition.

**Matt Cost:**

Great. Thank you.

And then the second question was just on the competitive environment. Obviously, one of the competitors is going through a major restructuring. Are you seeing any shift — positive or negative — in the competitive landscape year to date?

**Adam Foroughi:**

Look, since we went public, we've been a very strong independent leader in the sector. I don't think anything has changed there. We've been focused on executing. And as our technology has gotten more efficient, obviously we're driving more value to advertisers.

But we've said this for multiple quarters now: none of us operate in a zero-sum game. So when we're able to drive more value to advertisers who are buying on a performance basis, they don't go, "We have a fixed budget and we're going to pull from here." They go, "OK, we have a budget over here. But AppLovin is now five times better than they were, so let's expand the budget with them, too." And they're able to reinvest more dollars into user acquisition, which helps their businesses grow.

That's what makes the space quite appealing — none of it is zero sum, whether on the publisher or the advertiser side. And so we've been able to focus heads down on our own execution. Our team has built really cutting-edge technology that works better than any other -- I think any of the advertisers or our peers have seen in the sector — but that benefits everyone in the sector. And so we're excited that, that is just a reality of the industry we're in.

**Matt Cost:**

Great. Thank you.

**Operator:** David Karnovsky with J.P. Morgan has the next question.

**David Karnovsky:**

Thanks for taking the question. Adam, relative to your prior shareholder letters, you seem to be describing a mobile market that is broadly inflecting for the better. So I wanted to see if you could walk through some of the drivers of that, what you're seeing.

And then for Matt, wanted to confirm the 70% free cash flow conversion expected from here. I think the prior range was 50% to 60% — so maybe what's driving the better

flow-through? And then just a housekeeping on the Q1 guide — any color in terms of expected Apps growth there, even on a directional basis? Should you gain sequentially? Or would we see sort of a seasonal decrease?

**Adam Foroughi:**

I'll have Matt cover two and three. On the first one — on the mobile market — we put out a blog. I think it was around Thanksgiving. So it was a good one, highlighting CPM growth in the industry, comparing the '23 and '22 holiday period.

And what we saw in Q4 was that, coming off weak comps in '22 when every part of the economy was fearful, and this sector was particularly fearful, we saw brands and performance advertisers more willing to invest in marketing dollars.

Now, what we don't know about that is, whether the AI-driven advancements in marketing technologies that you've seen implied by our numbers and our performance and technology — and what Facebook has done and what Google has done over the last year — drove that acceleration? Or is it just the economy recovering? We think it's a function of both.

And we actually think because we're not brand advertising at all — ours is entirely due to technology efficiency — you're seeing this market start recovering. It's coming off weak comps, so getting back to growth is easier than it was in the past. But the marketing technology that is evolving from here and continuing to improve is going to be a really good catalyst for a return to growth for this mobile market.

**Matt Stumpf:**

In terms of free cash flow, David, we didn't guide to 70% going forward on a long-term basis. On a quarterly basis, we will have fluctuations depending upon just working capital and then also the timing of tax payments. But we are seeing better free cash flow conversion from EBITDA than we were expecting, which is a positive impact that we're seeing from all the technology improvements we've done.

And then in terms of the Q1 guide, your last question — obviously, we don't provide segment guidance, so I won't comment on Apps versus software. But we are happy to be able to guide into Q1 with slight growth considering the fact that it is a seasonally low period for the advertising market.

**Operator:** We will take our last question from Chris Kuntarich with UBS.

**Chris Kuntarich:**

Great. Thanks for taking the question. I think we're a bit further on into the CTV testing at this point. Can you give us some feedback from advertisers on how that adoption is going?

**Adam Foroughi:**

Look, the CTV testing and rollout is early stage. And we've got a really large software platform business now with net revenue near \$2 billion. So for it to become very substantial for these advertisers, it's going to be a ways out. They're all intrigued by it, because traditionally – and I don't know if you do channel checks – you won't find another place where these advertisers can buy on a performance basis the way we can enable it on Connected TV today.

So I'd say it's first inning. Everyone is excited by the prospect of being able to recruit a consumer on a new device that they just never had access to before in this way that we can enable it. But it's early, and in our business as big as we are and as fast growing as that business is for any new initiative to make a material impact, we're talking multiple years.

**Chris Kuntarich:**

Understood. And maybe just going back to the non-gaming business – I think it's been positioned in the past there was a bit of a lag between the adoption of AXON 2 from gaming to non-gaming, and just the scaling of budgets here within the non-gaming business once those advertisers adopt AXON 2. Can you talk about if that slowness to scale budgets within the non-gaming business if you guys are starting to see that normalize and start to revert to what you're seeing in your gaming business?

**Adam Foroughi:**

Thanks. Yeah. It's a good question. Non-gaming we'll probably never get to as quick as mobile gaming.

The mobile gaming marketer sees an opportunity and jumps on it. It's just that it tends to be a more commoditized space, and it's a tougher space for content providers to plan, whereas non-gaming enterprises tend to have a brand, and they have fixed budgets, and

they normally plan their budgets quarters and years out. And so because of that, it won't ever be a quick-to-move market.

That said, we talked about it growing faster than the gaming segment. We do know the technology application works across any category we've seen so far. So as we get a fintech advertiser live, or a rentals company, or an e-commerce company, we're seeing success across the board.

So it's an area we're investing in. We're increasing our headcount there. Now we always operate efficiently and lean, so that doesn't mean a lot of cost. But we are bringing in the right people to really expand these non-gaming verticals because we see a ton of opportunity there.

**Chris Kuntarich:**

OK. And maybe just one housekeeping question. I think you had called out the software segment outperformance in 4Q – you listed off a handful of factors. I think it started with a strong market and wrapped up with growth in advertiser budgets.

If we were to stack-rank these various impacts, is that kind of from most impactful to least impactful? Or anything to read into there? Thanks.

**Matt Stumpf:**

No, they're not rank-ordered, my list of factors. It's just a combination.

**Adam Foroughi:**

And I'd say, just given the growth rate we're on – and you've seen for multiple quarters now – the bigger part of our growth is driving more efficient value to advertisers, unlocking more budget and expanding the total advertiser total than it is the market. The market isn't growing anywhere near as fast as we are.

**Chris Kuntarich:**

Understood. Thanks.

**Adam Foroughi:**

Thanks, Chris.

**Operator:** Well, this does conclude our question-and-answer session for the quarter. We thank you all for joining us today. Have a good afternoon. We'll see you next time.

**Matt Stumpf:**

Thanks, everyone.

**Adam Foroughi:**

Thanks.