Twitter Q4 2020 Earnings Report
SAN FRANCISCO, CALIFORNIA
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PRESENTATION

Operator
Good day, ladies and gentlemen, and welcome to the Twitter Fourth Quarter 2020 Earnings Conference Call. (Operator Instructions) I would like to turn the call over to Krista Bessinger, VP, Investor Relations. Please go ahead.

Krista Bessinger ***Twitter, Inc. - VP, Investor Relations***
Thank you. Hi, everyone, and thanks for joining our Q4 earnings conference call. We have Jack and Ned with us today.

We published our shareholder letter on our Investor Relations website and with the SEC about 2 hours ago, and hope everyone had a chance to read it. We'll keep our opening remarks brief so that we can dive right into your questions. As a reminder, we will also take questions asked on Twitter, so please Tweet us at @twitterir using the $TWTR.

During this call, we will also make forward-looking statements, including statements about our business outlook, strategies and long-term goals. These comments are based on our plans, predictions and expectations as of today, which may change over time. Our actual results could differ materially due to a number of risks and uncertainties, including the risk factors in our most recent 10-Q and the upcoming 10-K to be filed with the SEC.

Also during this call, we will discuss certain non-GAAP financial measures. We have reconciled those to the most directly comparable GAAP financial measures in our shareholder letter. These non-GAAP measures are not intended to be a substitute for our GAAP results.

And finally, this call in its entirety is being webcast from our Investor Relations website, and an audio replay will be available on Twitter and on our website in a few hours.

And with that, I'd like to turn it over to Jack.

Jack Dorsey ***Twitter, Inc. - CEO***
Thanks, Krista. Good afternoon, everyone, and thanks for joining us. A few comments from me and Ned before we get to your questions.

I'm really proud of how we navigated 2020 and our remarkable finish in Q4. We reported revenue of $1.3 billion, up 28% year-over-year, reflecting great progress across both brand and direct response, with 31% year-over-year growth in total ad revenue and greater than 50% year-over-year growth in MAP revenue in Q4.

We made significant progress with new ad formats, stronger attribution and improved targeting in Q4. And that momentum continues in Q1 with the launch of our rebuilt MAP offering and website clicks objective. These improvements allow us to serve DR advertisers of all sizes with better performance and puts us in a much stronger position to drive accelerating revenue growth in 2021 and beyond.

Average monetizable DAU reached 192 million in Q4, up 27% year-over-year, with growth from product improvements reaching an all-time high in 2020. Looking ahead, we have a strong product road map designed to deliver even more daily utility for new and existing customers.

I'm also proud of the work we did in Q4 and over the course of the year to protect the integrity of the conversation around the U.S. elections, scale our infrastructure and service to operate reliably throughout the major events of 2020 and grow our team while keeping people safe in the face of a global pandemic.

With everything that's been happening in the world, in the U.S. and on our service around the U.S. elections, we've been getting a number of questions from you all about our audience. We are a platform that is obviously much larger than any one topic or any one account. 80% of our audience is outside the United States, and we have more than 50 accounts with over 25 million followers. Conversations on Twitter every day are based on what's happening in the world and we have proven in the past few years that if we do the work to serve the public conversation, our daily audience grows.

To anticipate the question, the increase in average absolute mDAU through the end of January was above the historical average for the last 4 years, and we expect to see mDAU growth of approximately 20% year-over-year in Q1. We look forward to seeing you all at our Virtual Analyst Day on February 25, where we're going to go deeper on all of our plans.

And lastly, I want to thank our teams for their incredible resilience and dedication during these trying times. We continue to see the strength and value of our service, the incredible potential of our business, and the importance of our purpose to serve the public conversation. Ned?

Ned Segal ***Twitter, Inc. - CFO***
Thanks, Jack. Before we get into Q&A, I'd like to highlight a few topics. As Jack noted, Q4 was a strong finish to the year. Total revenue of $1.3 billion was our highest ever in a quarter. We grew total ad revenue 43% sequentially. On a year-over-year basis, U.S. ad revenue was up 27%, and international ad revenue was up 35%, compared to 11% and 20%, respectively, in Q3. Advertiser demand was stronger than expected throughout the quarter, outside of a short period bracketing the U.S. elections on November 3.

Given the more stable business backdrop, we are able to move faster in hiring, resulting in total expense growth for Q4 of 21% and CapEx growth of 95% year-over-year. As a result of our strong revenue performance, we reported our highest ever quarterly operating income of $252 million, a reminder of the leverage in our business when we deliver revenue strength like we did in Q4.

Based on our conviction and our strategy, and the opportunity and execution and pace of innovation, we're maintaining our investment posture in 2021 and expect to grow total cost and expenses 25% or more, with most of our OpEx focused on headcount, particularly in engineering and product. We're also modestly increasing our CapEx spend in 2021 to support a bigger base of audience and advertising and to complete the build-out of a new data center.

We're pleased with the steady progress we're making in both brand and performance ads. From Xbox Mexico, using the new MAP Carousel to launch its next-generation console to Yahoo! Japan rebranding its big annual e-commerce campaign, advertisers are turning to Twitter for campaigns that drive awareness and deliver results. While still early, we're also laying the foundation for more revenue from small and medium businesses, as well as non-advertising subscription-based revenue streams that we'll experiment with this year and see revenue from in a more meaningful way next year. Assuming COVID improves and that we see modest impact from the rollout of changes associated with iOS 14, we expect revenue in 2021 to grow faster than expenses.

While we typically don't provide an outlook for mDAU, this is an unusual year on a number of levels, and we recognize our recent outsized growth will impact our growth rates in 2021 in a way that merits explanation. There are no changes to the ambition we shared pre-pandemic when mDAU was at 152 million, for us to grow mDAU 20% or more over multiple years. But the accelerated mDAU growth driven by COVID sets tougher comparables for most of 2021.

We announced on March 23 last year that mDAU year-over-year growth was already 23% quarter to date. And the mid-March surge from COVID that sustained the rest of the year had an outsized impact on the last 3 quarters' growth rates. We expect mDAU growth, as Jack had mentioned, of about 20% in Q1. But due to the tougher comps, we expect quarterly growth rates in the low double digits on a year-over-year basis in Q2, Q3 and Q4, with the low point likely in Q2. We remain focused on delivering higher growth rates in years to come as we reset some of our normal comps.

And you've also seen, we announced our rebuilt MAP and website clicks products yesterday as well. There's a great blog with more details on Twitter and on our website.

In summary, we're pleased with our results and the momentum we carry into 2021, and we're ready to take your questions. Operator?

QUESTIONS AND ANSWERS

Operator
(Operator Instructions) Your first question comes from Doug Anmuth of JPMorgan.

Douglas Anmuth *JPMorgan Chase & Co*
One for Jack and then one for Ned. Jack, I was just hoping you could talk on the product side, a little bit about Fleets and engagement that you're seeing so far? And just how you think that drives, kind of, a different user experience and kind of distribution of content.

And then similarly in Spaces, I know it's early, but there's clearly a lot going on in terms of the adoption in the audio conversation space. So just hoping to get some thoughts there.

And then, Ned, quickly, a lot of ad innovation kind of coming together at once. Curious if you're seeing a lift in advertiser count yet? And what kind of timing you'd expect for that?

Jack Dorsey *Twitter, Inc. - CEO*
Thanks for the question. We're looking more at the use cases in terms of what serves public conversation best and how we best serve that on Twitter. Fleets goes after the use case of ephemeral content, making sure that we can provide a solution for people who may not want to have to Tweet up permanently, but be more in the moment. We have a long road map ahead for that feature. And the early results after our global launch look good, but it's still pretty early.

Spaces is a really compelling area. I really love what we're seeing early with our beta testers in terms of the audio conversations that they can have free flowing, giving a lot more control to the participants. It will present a new model for how we think about instantaneous and potentially ephemeral communities in public conversation. And there's another area that we announced recently, which is around newsletters. This is really the long-form use case, making sure that people can use Twitter, not just for the short 280-character bursts, but also to expand on their thoughts. We're just getting started there. But you saw us integrate it very quickly into our web service.

So with all 3, we have some foundational use cases that we'll be watching very closely and learning from and iterating quickly on. But generally, the thing that ties all these together are -- there are multiple ways to have public conversation. And we want to make sure that we have the best offering that not only is best-of-class for each individual use case, but more importantly, what makes them strong is how they connect together and how Twitter can thread all of them. So that will be the real work and the real magic. And really excited to learn from each one individually. But more importantly, tying them together is going to be the -- is going to drive the most value to my mind.

Ned Segal ***Twitter, Inc. - CFO***
Hey, Doug, on the second part of your question around advertiser count, nothing new to share there today. But we were really pleased with how the SMB segment was really resilient for us over the course of the year. We have added to the sales team. We've added to the product team that supports them. We know we need to do a better job helping small and medium businesses understand why they should advertise on Twitter, find their customers on Twitter, make it easy for them to create their campaigns. And so the fact that we're doing so well, where we know a bunch of that work is in front of us, tells us that there's lots of opportunity to help these millions of small businesses on the service, find their customers and put ads up on the service. But a lot of that work remains in front of us.

Operator
Your next question comes from Justin Post with Bank of America.

Justin Post ***BofA Securities***
A couple. In the newsletter, you talked about the growth from product initiatives being highest ever. Can you tell us how you're measuring that? And what has happened with churn rates? And does that help you in '21? And then definitely, we see you're rolling out MAP, and you have some real interesting metrics in there. What gave you the confidence to roll it out now? I know you were saying on the last call, you weren't seeing the results you'd wanted to see. What kind of changed in the last 3 months?

Ned Segal ***Twitter, Inc. - CFO***
Thanks, Justin. So -- sorry. I'll kick it off and then if there's anything I missed -- Jack, if you want to take the bottom part. First, Justin, to give you a few numbers to just level set, remember, that group of people who joined us around the time that everybody went to shelter-in-place has retained better than historical groups have, that continues to be the case. We think a lot of the work that we've been doing, whether it's around topics or the work to preserve the health of the conversation on the service have really helped people both find what they're looking for and staying there, number one.

And two, I think that second part of your question was around MAP and why now? So we have released over 30 improvements to that product over the last year. And they've been things from improving our terms of service and working with third-party measurement partners to releasing the Carousel format and improving the models that do prediction. And you're already seeing the early results from it, such as the 80% plus impression growth that we were able to drive in Q4 and the over 50% growth in revenues from that in Q4, albeit off of a slightly depressed base in Q4 of 2019.

And as we thought about how to balance all these new features that we had in getting this into advertisers' hands with the changes that are coming from iOS 14, we felt that the product is ready, and it was time to get this in people's hands, recognizing that there always are going to be changes to which we need to adapt. We've also already done a lot of the work to prepare for iOS 14, we announced a couple of things yesterday. One is called Twitter Click ID, which will help you attribute a click from Twitter to an advertiser's website without a cookie as the world moves away from cookies over time. And we've also implemented the SK Ad Network, which is Apple's aggregated reporting service for advertisers to see what happened. So it felt like it was time to go on MAP and also on the revamped website clicks product, but there'll be lots of improvements that will continue to come on both of those over time.

Operator
Your next question comes from Rich Greenfield with LightShed Partners.

Richard Greenfield *LightShed Partners*
I think on the last conference call, you obviously scared a lot of investors with your commentary around, sort of, the delay in MAP. You read your -- the post, Ned, that you just called out in terms of sort of all the progress you're making on performance advertising. If you could just spend a minute, maybe just kind of delineate what -- as you think about everything you're doing in direct response to performance marketing, where does MAP fit in? How much is kind of outside the bounds of MAP?

Because obviously, when you talk about a doubling of revenue in Q4 in terms of kind of where you got to, I think a lot of that gets lost in sort of the delay that's happened in MAP. And so just kind of helping us understand what's in that mix would be really helpful.

Ned Segal *Twitter, Inc. - CFO*
Rich, on direct response, broadly, there's 2 big buckets for us: they are MAP and website clicks. And so we haven't quantified clicks in the past, but we did share more details on MAP today, just to give everybody a sense for the size of it. Because I think we recognize that people may not see how big it is for us already and that we're building off of a strong foundation as we look to grow from here.

And so a business that was over $300 million last year, that was roughly flat for the year, but that grew 50% in Q4 gives us a foundation to go out and help those advertisers even better and to help new advertisers as they gain confidence and test and learn around this prebuilt version of the product.

As we talked about the DR road map, we've said, just as we've said around other parts of our service that we've worked to improve over the years, that we need to begin by fixing the foundations. And so that started with the ad server. It led to direct response work first with MAP and website clicks and we'll continue to move further and further down the funnel. But those 2 areas are the primary pieces of direct response for us today as we work to move further and further down the funnel.

Richard Greenfield *LightShed Partners*
And then just in terms of tying that answer that you just gave to the answer before on the number of advertisers, obviously, you're still dwarfed relative to someone like Facebook, which has 10 million advertisers now. Like as you think about closing that gap, obviously, I would think

everything you're doing for small businesses, it all ties into direct response and sort of the rebuild and sort of the work you're doing on DR and performance. Is that fair that those 2 are closely tied together for you?

Ned Segal Twitter, Inc. - CFO
Well, they can be tied together, but they don't have to be tied together. So the tens of billions of dollars that are spent a year advertising for app installs, a lot of that is tied to large businesses: advertising streaming services, advertising games, advertising their newspaper apps and other things. And we see lots of opportunity to help existing advertisers spend more of their budgets with Twitter because they see more confidence and more performance from our direct response formats.

But we also see a long tail of advertisers who don't spend very much on Twitter today, who will see great opportunity of reaching their customers through clicks, through app installs and through other ad formats over time as we're able to do a better job, making it easier for them to reach their customers on the service. So it really is both, Rich.

Operator
Your next question comes from Lloyd Walmsley with Deutsche Bank.

Lloyd Walmsley *Deutsche Bank*
Yes. Two, if I can. First is just sticking with MAP. Can you kind of talk through the puts and takes of how that 50% growth should trend going forward? Should we think it accelerates because you now have the new system deployed, versus is there an iOS impact that will drive deceleration? Where do you think all that nets out?

And then I guess looking at the 1Q guide, for top line, even at the high end, it's not really accelerating, despite the easier comp in 1Q. Now was there any disruption from the episode at the Capitol? Or anything else you'd call out impacting 1Q? Particularly given just piecing together these disclosures from last -- from September and October, it seems like you exited December growing something like almost 50% by our math. But anything you'd call out in 1Q?

Ned Segal *Twitter, Inc. - CFO*
Thanks, Lloyd. First on MAP, and then I'll get to the second part of your question. So we're not going to give guidance today on what MAP's going to do over the course of the year, but we feel like we've got some real strong momentum behind us with that 50% growth during the fourth quarter. And we know there's so much more that we can do for app install advertisers with this new MAP product out in the market now and over 30 improvements in it. We'll likely see easier comps in the first couple of quarters of the year and lapping that 50% growth in the fourth quarter, obviously, is going to be harder than the earlier parts of the year.

We're going to work hard to deliver for them. And if you think about it, $300 million in the context of tens of billions of dollars spent on app install ads, we feel like there's lots of room for us with a growing audience and strong relationships already with the advertisers.

The second part of your question around Q1. So you'll recall that the way advertisers typically approach the year, they spend the first week or 2 of the year coming back to the office and planning and thinking about where they want to show up and how they want to show up. And this year, and it's all the secular change that we've seen, which I think really benefits Twitter, that we have become the second screen for sports and for watch parties for movies and for other things where people can't necessarily be in the stadiums or in the seats the way they have been before and as dollars continue to move away from linear television. I think a lot of that accrues to our benefit. But they spend the first week or 2 thinking about where and how they want to show up.

During that time frame, we had the riots at the Capitol. And that may have exacerbated that a bit. But as we look ahead and I'd start to look ahead with the Super Bowl this past weekend, where we were able to deliver for over 40 of the advertisers who were advertising during the game, there are a ton of great things happening that cause people to want to come together and have conversation around sports, around award ceremonies, around entertainment and other topics, and we're really excited about our ability to deliver around those things for advertisers with a larger audience, with better formats and improved relevance.

Operator
Your next question comes from Ross Sandler with Barclays.

Ross Sandler ***Barclays Bank***
Just one for Jack and then one for Ned. Jack, it doesn't look like the account closures from earlier in January are having any negative impact on the DAU trend, given your guidance in -- which implies about 8 million net adds for the first quarter. So just any commentary about positive or negative engagement trends on the back of those changes from earlier this year?

And then Ned, just following up on MAP and DR. So I mean, based on your disclosure here, it looks like overall, DR could be upwards of 15%, 20% of ad rev in the fourth quarter. So can you parse out a little bit what changes you're making to your sales approach, your go-to-market to cater to e-commerce advertisers and other categories within DR besides app installs, versus your kind of strong legacy in selling brand campaigns? Any color on how the go-to-market is changing?

Jack Dorsey ***Twitter, Inc. - CEO***
Yes. Thanks, Ross. As I said in my opening, we -- our audience, 80% of our audience is in the United States, and we have more than 50 accounts with over 25 million. So we have a global service. We are also not dependent upon just news and politics being what drives Twitter.

What we're excited about especially in the future is helping everyone unlock more of the long tail of topics and interest. This is why I believe being able to follow topics and interest is so critical and so important. And we give that functionality to people as soon as they sign up for Twitter.

People just spend so much time trying to find the right accounts instead of really being able to focus on what topics they're interested in. And it lends itself not to a better -- not only to a better consumption experience, but also more conversation, ultimately, and that's what we want to do. So while we have seen an increase in news and politics, especially in the United States, we are not a service that's dependent upon that. And as we continue to add more functionality around interest and topics, we remove more and more of that very light dependency on it. And that just gives so much power to the individual using Twitter, but it also gives a lot of power to our advertisers because it unlocks an entirely new way of advertising on Twitter and getting introductions to would-be consumers for your product or services, especially as we make local topics easy to follow and we add those topics.

We have over 6,000 topics that you can follow today. And we're adding them as quickly as we can all around the world. So that is the one area that I'd point to really focus on because it unlocks so much in terms of our experience, but also our business.

Ned Segal ***Twitter, Inc. - CFO***
Ross, on the second part of your question, as you probably know, we've got really strong relationships through our sales team with the largest agencies with many of the largest advertisers in the world. And then we've got a strong small and medium-sized business sales team. But there'll be terrific leverage for us as well over time as we make it easier and easier for advertisers of all sizes to buy really compelling direct response ads from us when we make it easier and easier for them to buy the ads when the ads are more and more performing. It will attract not just the advertisers, but whom we work very closely who we can go in and pitch around big campaigns, but also those that know exactly what they want to do and are running highly quantified models to assess where the best places are for them to show up with their campaigns.

And we think around website clicks and around MAP, there's a lot of that that's in front of us. But as we've said for a while now, it's important to get the product out into people's hands so that they can test and learn around it, and then allow their models to adjust. And so we hope to see a lot of that play out over the coming years as we continue to improve these products.

You asked about commerce. Commerce is on the road map. If you think about the advertiser funnel being in the middle around getting people the opportunity to click-through the website or to download an app is really important, and those have been places where we've already been able to help advertisers, but we really won't be done until we help somebody begin a purchase on the service. And you'll see us work around those things in the coming period here as we figure out the best way to do it and engineer it and deliver it to people on time.

Krista Bessinger ***Twitter, Inc. - VP, Investor Relations***
And we're going to take our next question from Twitter. Comes from the account of @StockViking, and they ask, when can we expect subscription products to ship?

Ned Segal ***Twitter, Inc. - CFO***
Thanks for the question from Twitter. So nothing new to report on subscriptions today. We will continue to build out these teams and to research and also to test on Twitter, and I'm sure you all will see those tests and have the opportunity to participate or observe them. But I wouldn't expect you to see these be meaningful contributors until next year.

Having said that, I just want to give a little perspective around subscriptions more broadly. Remember, 85% of our revenue today is showing ads to people on Twitter. And this is a hundreds of billions of dollar addressable market. And there is -- that is growing because of secular shifts and because of what's going on in the economy right now. And we see so much opportunity to deliver better and better for advertisers and to gain more and more of that market with a growing audience, with better formats, with better performance of those formats. And so we love talking about subscriptions and the potential and the durability they can provide and predictability to our revenue streams, but we also maintain a big focus around our revenue products.

And we feel really good about the pace of innovation that we're delivering around that now where it feels like things are really accelerating on the back of our improved ad server last year, where we're shipping more and more improvements now than we've been able to in the past. Now having MAP and website clicks out as of yesterday, we'll continue to work to improve these products as well.

Krista Bessinger ***Twitter, Inc. - VP, Investor Relations***
Great. And we'll take our next question, operator?

Operator
Your next question comes from Eric Sheridan with UBS.

Eric Sheridan ***UBS Investment Bank***
My name is a little bit of a letdown after StockViking. I hope I live up to that and try to follow up on that. Jack, maybe I'd love to ask you one big philosophical question. And maybe Ned, if I could just come back on that, and I apologize to sort of belabor the point. But Jack, when you think about where Twitter is going over the medium to long term, we're talking a lot on this call about DR and identifiers and giving the advertiser an opportunity, more right than wrong. And you've written a lot about getting decentralization into the web and Bitcoin and things like that. How do you think about a parallel where parts of the web decentralized versus some parts of the web continue to centralize and how you sort of marry those views and how you think about aligning Twitter as a platform for the medium to long term? Would love your sort of philosophical and operational view on that.

And then maybe, Ned, just to come back to MAP. I think you talked about up 50% in Q4. Can you just discern a little bit of how much of that was an easy comp in Q4 that you called out a year ago? Because it seems like to be flat on the year and up 50% in Q4. Obviously, there was a fair bit of weakness between Q4 and maybe the first half of '20. I just want to make sure we're sort of interpreting the rate of change right?

Jack Dorsey ***Twitter, Inc. - CEO***
Thanks for the question. I think the most important thing to focus on in terms of decentralizing social media is that it creates a much larger corpus of conversation. It gives many more inputs to public conversation. And the more conversation that we kind of access to, the more -- the better job we can do to surface relevant content to people. And that's where we will be competitive, is making sure that we are delivering the best out of a much, much larger corpus of conversation.

So as we look at things that we can decentralize, this one becomes very, very obvious. The problem of discovery around content is one that is easiest when it is centralized, and that's how we've operated for almost the past 15 years. But even that has some potential to shift. And one of the things we brought up last year in our Senate testimonies in terms of where we're excited to build to address some of the problems that is facing Section 230, is giving more people choice around what relevance algorithms they're using or ranking algorithms you're using. You can imagine a more market-driven and marketplace approach to algorithms. And that is something that not only we can host but we can participate in.

So I think the thing that gets me really excited about all of this is we will have access to a much larger conversation, have access to much more content, and we'll be able to put many more ranking algorithms that suit different people's needs on top of it. And you can imagine an app store-like view of ranking algorithms that give people ultimate flexibility in terms of how they see it.

And that will not only help our business, but drive more people into participating in social media in the first place. So this is something we believe in, not just from an open internet standpoint, but also we believe it's important. And it really helps our business thrive in a significantly new way, given how much bigger it could be.

Ned Segal ***Twitter, Inc. - CFO***
Eric, on the second part of your question around MAP. So it's really hard to look at the growth from one quarter in 2019 to the growth in another quarter of 2020 and assign it all just to percentages. As you can imagine, with a product that we've rebuilt with over 30 new features, many of which are already available in Q4, we need to earn the trust of the advertisers who use our service every day. And many of the advertisers who showed up in Q4 of '20 are different than the ones who showed up in 2019. Those who are the same are often advertising something different: a new game; a new rollout of a second season of a show on their streaming platform; or something else that they didn't have the year before. And so they're constantly testing and observing where they get the best performance and where they want to show up with their ad dollars.

And so we do have -- we did have an easy comp in Q4 of '19 because we faced a number of challenges in the middle of Q3 of '19, which persisted into Q4. But we still had to go out and earn every one of those dollars with this largely rebuilt, but not completely rebuilt product in Q4.
So as I look ahead, I feel like what's -- the question is, where do we go from here? We're going to work hard to continue to grow the size of MAP and direct response more broadly from now into

the future because we know that that's an important segment for our advertising customers. We know that, that is a large and growing part of the digital ads market. So -- and we feel like we're well positioned to deliver against it with all the inputs that we've got.

Operator
Your next question comes from Brian Nowak with Morgan Stanley.

Brian Nowak *Morgan Stanley*
Happy earnings Tuesday. So 2 questions. First one, Ned, I appreciate the color about the way to think about mDAU growth over the course of the year. Good color.

Question is, as you've sort of been on the journey of improving overall existing user retention and driving higher adoption of new users, can you just talk to us about sort of any progress you've made on that front that sort of gives you confidence now to sort of talk to multi-quarter mDAU growth for the course of the year? And within these comments, how are you thinking about growth in the U.S.?

And then second, bigger picture question. I know throughout the second half of last year, you took some efforts to sort of improve your data capture to maybe drive better relevancy of your ad units. Talk to us about some examples where you've improved your overall data set and you're targeting offerings for your advertisers?

Ned Segal *Twitter, Inc. - CFO*
Great. Thanks, Brian. So on mDAU first, when we forecast DAU, which whether we share with you all or not, you can imagine is an important part of the work that we do as we plan and think about how to resource things, we look at the products that we're building. We look at history and try to think through how things that have happened in the past are likely to impact the future. We look at how our retention rates have improved and evolved over time, and we try to roll those forward. We don't roll forward global pandemics. And there are certainly exogenous events that happen that are harder for us to predict.

But when we have a base of -- a foundation on which to forecast, the numbers that we share today fall out of all the hard work we do to analyze those and think about how we roll those forward. We do think there's opportunity for us to continue to grow in the United States and outside of the United States. With hundreds of millions of people in the United States who still don't use the service every day with a very healthy top of funnel, both in the United States and outside of the United States, we have lots of that about every day to help people find what they're looking for better so that they make Twitter a part of their daily habit.

And this group that joined us around the time that shelter-in-place began in mid-March that has stayed with us better than previous groups have, really gives us confidence that we are doing a better and better job. Jack talked about Topics and how there's real opportunity for us to surface those for people earlier in their experience. We're getting better and better at that. Not just at onboarding, but in their initial weeks with us so that we can help them have a better experience.

We even within Topics have to be thoughtful about how we show somebody on the East Coast who says that they're a baseball fan, different Tweets than somebody on the West Coast who is a baseball fan. And as we adapt and learn around these things, they can have a better and better impact on our ability to retain the people who come to the service all the time.

The second part of your question was around our ability to leverage more data in order to deliver them better for advertisers. There's a lot that we've done here. I'll give you a few examples. One is, as we talked about in the past, we have taken the opportunity over the last few quarters to prompt people a couple of times outside of the EU, to ask their permission to give them a more personalized experience. And this is something that we try to do in a transparent way that builds trust, that doesn't take it away, that makes it clear to people exactly what we're asking and gives them the opportunity to say, no, if they want to. These have been successful, both in terms of getting more people to choose a personalized experience, but also in terms of not having the people who said, no, not feel like we did anything untoward in how we approach them. So that's one example.

A second one is we take a model that we use to predict how -- who ought to see a MAP ad. And we apply a learning period to it. So we give the model a chance to adjust for a few days so that it can learn from how the ads are engaged with, in the early days and then adapt over time. We found that, that has helped a lot.

And lastly, just in how people use the service as we know more and more about what they're looking for because they tell us they care about a whole topic, not just cobbling together the accounts that they think might inform about that topic. If they go to an event-specific timeline, we know exactly what it is that they care about in a moment, as they give us signal when they search something on the service, there are more and more opportunities for us to leverage those signals, some of which we've had for a long time, but there's still opportunity to leverage better than we have in the past than others which are newer to us. We still see lots of opportunity to better utilize those to show people more and more compelling ads over time.

Operator
Your next question comes from Heath Terry with Goldman Sachs

Heath Terry *Goldman Sachs Group*
Jack, you've been -- you're going through a stage in terms of content on the platform where you had to get more engaged -- probably more engaged than you have been since the information quality initiatives around harassment when you took over immediately after returning as CEO.
To the extent that there's any parallel there, does it give you a sense of what these efforts at improving the dialogue on the platform can do for user growth and engagement longer term?
And then, Ned, to the extent that you've now relaunched the ad server, revamped MAP, when you say -- where would you say we are in terms of fixing those foundations that you referred to? Are we 20% of the way done? 80% of the way done? And what would you say as sort of the next major process on that road map you referred to?

Jack Dorsey ***Twitter, Inc. - CEO***
Yes, thanks for the question. We still believe that over the long term, our focus on promoting more healthy conversation is a growth vector. And we definitely see the effects of that. As you mentioned, our earliest tasks were around abuse and harassment, and now we are broadening our scope to misleading information. We focused on 3 areas: public health, civic integrity and manipulating media. I think, ultimately, over time, this is a problem best solved by the people using Twitter itself. So that means giving folks much better controls to perform moderation individually or as a group.

And also, things like a beta we launched recently called Bird-watch, which allows people to add context to Tweets that just give people more broader context for the things that we are not able to handle as a centralized service. So the more we can decentralize the moderation and give people better tools to curate their experience, I think it continues to be a very, very strong growth vector for growth over the long term.

Ned Segal ***Twitter, Inc. - CFO***
Heath, on the second part of your question, there's always stuff for us to do to improve the foundation. But when we think about the revenue product area, in particular, which is I think where you were looking, with the rebuild of the ad server, with the confidence that we have with that work now 9 or 10 months behind us and the proof points that were really moving faster as a result of having that work complete, with the better staffing that we're delivering to those teams with revenue product being our #1 company priority, with a clear multiyear road map and the confidence to grow headcount 20% or more this year and grow expenses 25% or more, we feel really good about our ability to be playing offense in revenue product.
And that's why, over time, you're going to see us continue to improve our existing ad formats. You're going to see us move further and further down the funnel until you can start to buy something on Twitter, where you'll see subscription opportunities for consumers and for businesses, where you'll see that SMB opportunity become bigger and bigger for us over time as we work the product opportunity and the sales side of it. So I'm not sure if from a percentage perspective, how to answer your question, but we feel like we're playing offense now with revenue product.

Krista Bessinger ***Twitter, Inc. - VP, Investor Relations***
We have time for just one last question, please, operator.

Operator
And your last question comes from Michael Levine with Pivotal Research.

Michael Levine ***Pivotal Research Group***
I promise not to ask another MAP one. But one question I had was really around gross margins. I know that, obviously, before you guys used to basically give out a gross and a TAC number. So I think folks are trying to understand and unpack how much of this may be around public cloud, how much of this is around content costs and how much of this might just be more revenues basically coming through the TAC associated with it?

Ned Segal ***Twitter, Inc. - CFO***
Great. Thanks, Michael. So remember, there are 3 big buckets, there are a few other things, but 3 that I focus you on, around cost of revenue. One is our infrastructure, whether it is depreciation for servers that live in our data centers or it's in quarter spend where we're sending a check to Google Cloud or eventually to AWS. And that's a very big bucket, and that's going to continue to grow over time. It will scale with things like our needs to do more and more analysis, which we do ROI analysis when we do that work to make sure that there's a payoff for it. But we tend to find that when our teams have access to better analytics and the best tools at the best cloud partners that they can do better work than they were able to previously. So that's one bucket that will grow over time.

Second bucket is traffic acquisition costs. When revenue is higher, TAC will tend to grow with revenue. It also got a little bump in the middle of this year when we added the CrossInstall team as their revenue has TAC associated with it.

And then the third bucket that can be more variable and is larger, is that revenue share where -- when content partners bring awesome clips and highlights to Twitter. And we split an ad dollar with them, their part of the ad dollar shows up in cost of revenue. And in a year like this, you saw few of those dollars in Q2, and you saw more of them in Q4, just the way that the event calendars shifted.

Now remember, when we think about our profitability, we're going to be more gross profit dollar sensitive than gross margin sensitive. And so they could vary over time, and you know where our bias is. But you should see leverage when we deliver revenue outcomes like the one that we did today when you add up all the expenses to run the company.

Operator
I would now like to turn the call back over to management for closing remarks.

Ned Segal T***witter, Inc. - CFO***
Okay. Great. Thank you, and thanks to everybody for joining us. We appreciate your interest in Twitter. We look forward to seeing you all at our Virtual Analyst Day on February 25 at 9:00 a.m. Pacific time. Until then, we will see you on Twitter.

Operator
Ladies and gentlemen, thank you for participating in today's program. This concludes today's program. You may all disconnect. Have a good day, everyone.