



Twitter Q4 and FY 2019 Earnings Report  
SAN FRANCISCO, CALIFORNIA  
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## PRESENTATION

### **Operator**

Good day, ladies and gentlemen, and welcome to the Twitter Fourth Quarter and Full Year 2019 Earnings Conference Call. (Operator Instructions)

I would now like to turn the call over to your host, Krista Bessinger, Vice President, Investor Relations. Please go ahead.

### **Krista Bessinger *Twitter, Inc. - VP, IR***

Hi, everyone, and thanks for joining our Q4 earnings conference call.

We have Jack and Ned with us today.

Before they start, I just wanted to remind everyone of the format of our call. We published a shareholder letter on our Investor Relations website and with the SEC about an hour ago and hope everyone had a chance to read it. Because the letter has a lot of detail, like last quarter, we'll keep our opening remarks brief, and then dive right into your questions. We also take questions asked on Twitter, so please Tweet us at @TwitterIR using the \$TWTR.

Also during this call, we will make forward-looking statements. Those are things like our outlook for Q1 and the full year of 2020 and our operational plans and strategies. Our actual results could differ materially from those contemplated by our forward-looking statements, and you should not consider our reported results as an indication of future performance. We are making these forward-looking statements based on information available to us as of today, and we disclaim any duty to update them later unless required by law. Please take a look at our filings with the SEC, especially in the Risk Factors section in our most recent 10-K and in our 10-Qs for a discussion of the factors that could cause our results to differ.

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***

Good morning, everyone, and thanks for joining our fourth quarter call. A few highlights from me and Ned before we get to your questions.

2019 was a great year for Twitter. Our focus on making the service more instantly relevant is compounding. More than half of the 26 million mDAUs we added in 2019 were directly driven by improvements to the core product. This quarter alone, we saw 21% year-over-year growth in daily

active usage, our highest reported, bringing us to 152 million mDAU. This is an incredibly strong foundation to build upon.

We're focused on 5 -- 4 priorities as we look forward. I'll talk about each now.

First, we'll increase our development velocity and trust. While we've come a long way in improving our core infrastructure, we still aren't happy with how quickly we're able to move. The time it takes to go from an idea to shipping something remarkable to customers simply takes too long. We have a clear sense of what's blocking us, and we're working hard to fix it. Addressing this makes everything we want to do stronger and faster.

Second, we'll increase healthy public conversation. As we said before, we believe our work on health is a growth vector for us over the long term and fuels more conversations on Twitter. Misleading information is probably the biggest challenge facing us and our industry. This will be a key focus for us as we also continue to broaden the service towards following interest and topics, which, I believe, will be transformational for the service. Interests represent an entirely new way to use Twitter and will deliver far richer timelines from onboarding to daily use.

Third, we'll increase revenue durability. As you are all aware, we found some bugs last quarter which impacted our performance. I'm confident in our work to address these issues and our path forward. One positive signal is that parts of our new ad stack that have already been shipped handled all the Super Bowl traffic. And while there's more work to do, we've worked through a lot on MAP with the goal of being a more performance-centric ads business. This work takes time, and we're committed to doing it in the right way.

And finally, we'll enable anyone, anywhere to work to Twitter. I spent the majority of last year traveling to every one of our offices and some places we don't yet have a presence. We are a global service that requires global perspective. For us to continue to thrive and be valuable to people around the world, we need people from around the world to work with us. Our concentration in San Francisco is not serving us any longer, and we will strive to be a far more distributed workforce, which we will use to improve our execution.

These 4 priorities will guide us for the next few years, and you should expect to see the results in our numbers. We have overcome so many challenges over the past 5 years. We've shown resilience in all the lows and highs, boldness in our stances and openness as we work to help public conversation in a way that benefits all, not just Twitter. I'm really proud of what we've been able to make happen, and I'm even more excited about how Twitter is evolving. We're working hard every day to make Twitter the public conversation layer of the Internet, and we love our work.

And now, over to Ned.

**Ned Segal *Twitter, Inc.* - CFO**

Thanks, Jack.

Before we get into Q&A, I'll highlight a couple of points.

Total revenue reached \$3.46 billion, up 15% on a constant currency basis with ad revenue also up 15% on a constant currency basis primarily driven by 21% growth in the United States.

Q4 was a strong finish to the year with mDAU up 21% year-over-year. As Jack mentioned, this was largely driven by product improvements. We delivered solid operating performance across

most major geographies despite the MAP headwinds, resulting in revenue up 11% year-over-year with particular strength in U.S. ads up 20% year-over-year. We also had our first \$1 billion quarter.

We continue to see a tremendous opportunity in front of us to get the whole world to use Twitter and to provide a more personalized experience across both organic and promoted content, delivering increasing value for both consumers and advertisers.

Jack talked a bit about our objectives for 2020. To support that work, we expect to grow headcount by 20% or more this year with a focus on engineering, product design and research. Given investment decisions made in previous years and our anticipated 2020 headcount growth, we expect total expenses, which include cost of revenue and all operating expenses, to grow approximately 20% in 2020, ramping in absolute dollars over the course of the year.

With that, we're ready to take your questions. Operator?

## QUESTIONS AND ANSWERS

### **Eric Sheridan - UBS Investment Bank**

Maybe two, if I can. Jack, for you. On mDAU, continue to show a lot of momentum there. Maybe just talk a little bit about what you're seeing of the funnel evolving from the MAUs you have today and the onboarding process at the top of the funnel compared to some of the product innovation you're doing and how that's translating into mDAU growth lower down the funnel. I'd be very curious to get some additional color there.

And then, Ned, on the investment side, I wanted to know if we could understand that. On the CapEx guidance, you called out 1 data center in 2020. How much of that CapEx is one time in nature in 2020 versus maybe against the baseline that investors should be thinking about capital expenditures' needs for the business over the longer term?

### **Ned Segal Twitter, Inc. - CFO**

Thanks, Eric. I'll take both, and if Jack wants that thing on the audience side, he'll jump in. On the funnel, we continue to see a really consistent group of people who come to Twitter every day, who haven't used the service for a month or more or who have never used it before. And the work for us continues to be to help them find what they're looking for and give them a great experience on the service so that they'll come back more frequently. We see lots of opportunity both to continue to convert people who have been infrequent users of Twitter and to convert those who are new to the service to become people who want to use Twitter every day to find out what's happening in the world and what people are talking about. So lots of opportunity in both. And if you look at the breadth of the mDAU growth that we delivered this quarter where we grew double digits in all of our top 10 markets with 15% growth in the US and 23% growth internationally, we feel like that breadth demonstrates the opportunity.

Your second question was on CapEx. So we grew CapEx 10% in 2019. Remember, that number's going to move around from 1 period to another based on when servers show up and when checks go out. And we're not really optimizing for 90-day windows when we solve these things, we're optimizing for much longer time frames than that. Our CapEx will grow between 45% and 55% this year. And the big change from the 10% to the 45% to 55% range is that new data center that you mentioned. We're not going to break out the details in terms of how much of it is associated with 1 particular investment, but I suspect that the spend associated with the new data center will be biased more towards the second half of the year. And how far along we get in that project will cause that range to -- will be the biggest variable within the range that we've provided. This isn't

a new normal for us in terms of CapEx growth rates. This is something that is more directly tied to a specific investment decision that we've made.

**Douglas Anmuth - JP Morgan Chase & Co**

One for Jack and one for Ned. Jack, hoping you can talk about the early impact of topics, what you're seeing in terms of engagement, some of the areas where you think it might be able to be improved still and any commentary on how it may have helped DAUs in 4Q.

And then, Ned, you talked about the ad issues from last quarter weighing by 4 percentage points in 4Q. How should we think about that impact in 1Q and really in the first half of 2020? And can you talk a little bit about just the trajectory on revenue through the course of this year?

**Jack Dorsey Twitter, Inc. - CEO**

Thanks for the question, Doug. So just to step back a little bit, I do see Twitter more as an interest network than particularly a social network. And what we mean by that is for close to 14 years now, people have come to Twitter because they're interested in something happening in the world, some topics, some interests. And we make them do a ton of work at the moment to find and follow all the related accounts. We've had a number of initiatives in the past to address this, but none that have been as cohesive as our most recent ones. We have 2 -- 2 vectors for this one is around Lists and enabling people to very easily create a List, pin it to the top of their timeline, switch between those very quickly. We're going to add a ton more capabilities to this as well so they become even richer. You can add potentially other entities besides just accounts. And this is a great way to -- it's somewhat equivalent to a playlist where you can make something that you continue to maintain and then share it with others. So that's the social aspect of it.

And then with interest, you all have probably seen by now that if you see a Tweet for instance about basketball, you might be prompted to follow the NBA or the Golden State Warriors. And after you do that, more Tweets will show up right in your timeline. This gives us an opportunity to show the best Tweets per any interest, the best accounts per any interest. It just really broadens our approach in the timeline, and it makes the timeline extremely rich. We think this is great for people who use Twitter today, and we have seen a lot of engagement that signals a lot of positive things early on. But where I think this really makes a difference is how we think about onboarding. And keep in mind, when people come to Twitter, they still have to do all that work around finding and following the accounts that are related to their interest. And we think we can take a bunch of that friction away, pay attention to the context that they happen to be in such as location and give them a rich timeline right away. Now again, we've had a ton of experiments on onboarding in the past, but I don't think we fully saw through to how people would be using Twitter on a daily basis. So I do believe this is ultimately transformational in all the positive ways. I think it gives people a rich timeline right away, but it also gives them a path towards discovering even more and ideally, getting them to a -- getting them to a position where they feel a lot more comfortable participating in a conversation and not feeling like they're just Tweeting at the world, but Tweeting at a particular interest.

**Ned Segal Twitter, Inc. - CFO**

Doug, the second part of your question was around the issues we went through in October and their impact over time. So those did indeed have 4 or more points of impact in the fourth quarter, as we talked about back in October. It doesn't make sense to break that out over the course of this year as those are issues that we're going to continue to address as the year continues. As a reminder, the way we think about remediation for those things is a fewfold. The first is we worked in Q4 to ship anonymized aggregated data to measurement partners. That's a first step along the way. A second step is we want to continue to help the people who use the service realize the benefits of a more personalized experience on Twitter. We continue to see that as an opportunity

for us. And as we continue to carefully balance our own company principles around data privacy and transparency with local regulation with the desire to get people into a timeline quickly, with the desire to make sure they have a great experience on Twitter over time, our thinking continues to evolve. And again, we see opportunity there. And then the third step is to continue our work on rebuilding the ad server that Jack went through in his opening comments, which we expect to complete in the first half of this year, and to continue our work to come out with a new version of our Mobile Application Promotion ad format not just to help improve an existing ad format for us, that's important for our current advertisers, but also because this will give us a better path towards more direct response advertising over time. If I step back from all this stuff, I'd just point out that advertiser sentiment remains strong. They continue to want to work with us to launch new products and services and connect with what's happening.

And you asked about the rest of this year. And although we're not giving guidance beyond the first quarter, there's a ton of stuff that we're really excited about both from an audience perspective and from an advertiser perspective. Some of it's quadrennial in nature like the Olympics, the EuroCup, the U.S. Presidential Election, but there also are the annual events and those unanticipated things that bring people to Twitter to find out what's happening and what people are talking about.

**Heath Patrick - Terry *Goldman Sachs Group Inc.***

Jack, you referenced the ad-tech stack handling the Super Bowl load, can you get into the specifics of some of the improvements that you have made to your programmatic technologies and maybe what the pipeline looks like there, particularly the degree to which you've been able to close the gap between where Twitter is in terms of being able to handle the demands of direct response advertisers and what you see from some of the bigger platforms?

And then Ned, you've added 11 million international DAUs over the last 2 quarters. Could you break down some of the contributors to that DAU growth? To what degree is this new users to the platform, higher engagement among existing users? Are there specific countries, regions, topics, usage profiles that you would say are contributing to this significant growth?

**Ned Segal *Twitter, Inc.* - CFO**

Thanks, Heath. I'll take both. First, on the ad server. The idea of rebuilding the ad server is a lot. We want to be able to move faster. We want to attract great people to the company who want to work on the latest technology. We want to make sure that when you want to improve something that you can work on a component of the ad server and that you don't need teams that work across all of it. We want to be able to test things faster and roll them faster. An example of that is our revenue science team now is 5x the capacity to build new products and features, which should ultimately lead to improved relevance for advertisers over time. So we've shipped a number of improvements already, and we expect that work to continue during the first half of the year but to be completed within this year -- I'm sorry, within the first half of the year. And the work is also tied to our work on MAP. Because as we continue to work to ship a new version of MAP, we feel like we'll have a better opportunity to help advertisers with more direct-response-type opportunities over time.

The second part of your question was around international DAU. We don't break out the DAU by region, but I'd just point to the fact that we grew double digits in all of our top 10 markets to give you a sense for the breadth that we saw in terms of how people came to and embraced use of the service on a daily basis. It's no particular event. It's no particular region. It's no particular demographic or use case. The way Twitter is designed is to allow people to find out about the

topics and events that are most important to them wherever they are in the world and whatever those topics may be and to allow them to see all sides of those topics and events. And we're really proud of the momentum that we've developed all around the world, not in any particular place.

**Ross Adam Sandler - Barclays Bank**

Great. Ned, just a couple of questions on revenue. Any additional color on the strength in the US ad market in 4Q? Is that a function of the higher mix of brand and video compared to international? And then it looks like your 1Q guidance at the high end assumes a slight pickup in ad revenue -- in ad revenue growth. So are you guys feeling increasingly confident about budget commitments in the ad pipeline in 2020? Any color on how the outlook there looks great.

**Ned Segal Twitter, Inc. - CFO**

Thanks, Ross. So there -- our 2 stories worth sharing when you unpack the ad revenue from Q4. The first is that 20% growth in the United States, which demonstrates the strength of advertiser sentiment and the way we've been able to deliver for advertisers. A great example of that is Disney+ where we were able to help them with a critical launch, where it was obviously a global launch, and we helped them all over the world. But you saw it resonate with people in the United States where they advertise the app, where they advertise the shows that people can see where they want to help people help form their opinions about the service as well as download the app. That's a great example of a success story from us from Q4. We find that MAP and direct response tends to be a bigger part of our business outside of the United States than it is inside of the United States. We grew international revenue 3%. And inside of that, Japan grew 1%. So anticipating your questions around that, I'd really point to MAP. And just to give you an anecdote, if you look at APAC, broadly, MAP was down 25% in APAC; brand continued to grow. And hopefully, that gives you a sense that advertiser sentiment in terms of wanting to work with Twitter to launch new products and services and to connect with what's happening remain strong, but work remains for us on those different areas where we talked about on the revenue product side in order to better help advertisers outside of the United States. And so that's the work that we'll continue to undertake over the course of 2020.

Sorry, I guess another part of your question was around Q1 and what gives us the confidence around the range. The guidance philosophy continues to be that we want to give you the most likely scenarios for how things could play out at the time of the earnings call when we've got a couple of months left to go in the quarter. Q1 is a time when we see lots of people get new devices and download apps for their devices. We see lots of annual events that come up in the US and all around the world that are great engagement and revenue or advertising opportunities for us. And so we continue to work hard to execute well against those and to help advertisers realize their objectives. I'll give you a cool stat. When we look at the Super Bowl, we had all but one of the eligible advertisers from the Super Bowl advertising on Twitter around the time of the Super Bowl. A couple of them were political advertisers. And you all know that we don't accept their ads. But to get all of it one of the others to advertise on Twitter, it's something we're really proud of and demonstrates how important we are to them in amplifying their message.

**Brian Thomas Nowak - Morgan Stanley**

I just want to go back to the rebuild and the new ad server, I think that seems like a potential game changer for advertisers. But could you give us a couple of sort of more tangible examples of factors that you're really focused on improving from an advertiser targeting or ad product perspective to really drive more acceptance of new advertisers in ad budgets?

**Ned Segal *Twitter, Inc. - CFO***

Brian, there are a couple of things. I gave one example earlier. But there are other examples that we think of -- where we can continue to better help advertisers. Sometimes -- remember, we get a lot of signal from how people use our service because of the things that they're looking into. If you want to learn more about the Super Bowl or about an event that's happening in your part of the world, we can show you a relevant ad based on the search that you're in. We historically have done a great job of showing people ads in their home timeline and have had opportunity to do a better job for them in other parts of the app. And we came out with the Promoted Trends Spotlight, which is a great example of a way that we can help people in other parts of the app late last year and early this year. And there are other ways that we'll continue to work to help advertisers reach their customers when they're in an event-specific timeline, when they're searching for things in other parts of the surface area of the app. The ad server work, a lot of it is foundational and things where you'll find that we'll be able to move faster, we'll be able to test things faster, we'll be able to learn and adapt more quickly because we won't need to work across all the different components of the ad server in order to do our work.

**Krista Bessinger *Twitter, Inc. - VP, IR***

Thank you and we'll take the next question from Twitter. It comes from the account of @RichReadsVids. The question is, revenue growth has been slower than user base growth. What's causing this trend? Do you expect it to continue and what can be done to counteract it?

**Ned Segal *Twitter, Inc. - CFO***

Thanks for the question. So when we look at the last couple of years, you'll note that in most of the quarters, revenue has grown faster than audience, which demonstrates our ability to do that over time, whether it's through improving relevance, continuing to address that demand-supply balance. We continue to feel more demand-constrained than supply-constrained when we look across surface areas and geographies and times of year. And we continue to see opportunity to improve upon both of those things as well as help people who want to build businesses around our APIs and other ways that we can grow revenue faster than audience. But they won't match up perfectly every quarter, as evidenced by the last couple of quarters where audience has grown in excess of revenue. Over time, we continue to believe that revenue can grow in excess of audience. But it's just going to vary from 1 period to another based on the geographical mix of the audience that we attract, based on the work that we're doing on ad formats and where we are in that progress as well as other factors which will cause it to move in 1 direction or another.

**Mark Mahaney - *RBC Capital Markets***

Two questions, please. The Olympics is -- as a major marketing event this year. What are your plans for new products for users or new experiences for users? And are there any particular sponsorships you have related to the Olympics? I think like you've had maybe with the World Cup in the past, that will really allow you to participate in that ad spend.

And then, Jack, could you talk about your management plans for this year? And just do you plan to be in San Francisco? And if you're not in San Francisco for a part of the year, just address the complexity of running the company from not the headquarters if that's in fact what you're going to do?

**Ned Segal *Twitter, Inc. - CFO***

Yes. Mark, I'll take the first part on -- sorry, on the Olympics. Jack is so excited to get to the second part. I -- on the Olympics, there are a couple of things to point out. When you think about all the work that we've done since the last summer Olympics, we now have event-specific timelines. It's so much easier to find the information you're looking for on Twitter. We also have a much better

sense for how to use live and stored video in order to improve the experience. So we'll have near real-time highlights of the most important events. People will get to vote on the content that they want to see on the service, the highlights that they want to see. And we announced our partnership with NBC a year before the opening ceremonies, which gave us the time to go find the right partners for all this great content. And then ultimately, we'll share the revenue, the ad dollars with our content partners around these highlights all around the world. So we've learned a lot from the past about how to improve the conversation, how to improve the content and how to deliver better for advertisers, and you'll see a lot of that show up in the Olympics, which, of course, happen in our second largest market, in Japan. I'll turn it to Jack on the second part.

### **Jack Dorsey *Twitter, Inc. - CEO***

Just one point on the Olympics. We have to build infrastructure and product experiences that are scalable to every type of event. And I think that the biggest experience that I think helps the Olympics a lot and helps people find the Olympics is around interest and topics. I do think, as I said earlier, this will be transformational for our service but certainly, a much, much better foundation for us to serve events like the Olympics and events like the elections coming up and elections around the world. So these are -- our goal here is not just to focus on any 1 particular event, but to actually build scalable experiences that serve all events in an enduring way and a durable way.

In terms of location, as I said in my opening, I spent all last year traveling. I visited every one of our offices around the world. We -- our execution throughout the year, as I was traveling and as the management team was traveling, continued its pace. I believe that we focused on our priorities in the same way that we would have otherwise. I believe we had really good frameworks to understand any issues that would come up. We had a good understanding of how to address anything that we saw and moved quickly on any opportunities that we saw as well. So I don't fear any slowness as we work to distribute our workforce more. And I do think that we have to build a company that's not dependent entirely upon San Francisco. We already have 2 members of our leadership team in New York, the rest -- the balance of that in San Francisco. I think as we look forward, we're reaching a talent pool that expects a lot more remote work, expects to work outside of California and outside of San Francisco, and we should be building our company around that. I haven't made any plans just yet for this year, but I do expect that I will travel. And I do think that we need to figure out how to build a company that is distributed, that is not burdened by time zones, but it is advantaged by them. And I think it'll give us a lot more perspective into markets that continue to emerge and are growing extremely quickly and to the point where even our peers are looking very, very deeply within those markets and within those continents. So I think we have a good framework. No major changes to speak of, but we have to constantly improve it.

### **Richard Scott Greenfield - *LightShed Partners***

A couple of follow-ups, first. You both talked about Topics. I'm curious now that you've had the product rolled out, is there any sense you can give us of just how many of your users on a global basis are actually following at least 1 topic?

And then, Jack, in your opening remarks, you made a comment that there was issues blocking iteration. You know what they are. Could you give us a sense of what those blockages are just so we understand how quickly they can get addressed? And does that also apply to ad products? Or was that specifically about the kind of the core timeline product of Twitter?

And then just sort of a big picture for either you or Ned, you -- for a long time, I think both of you were sort of talking about being stuck in this 9% to 14% band for DAU growth or mDAU growth. Obviously, you've broken out of that the last couple of quarters, showing the sort of the product

changes are working. But at 31 million US DAUs, you're still tiny versus kind of the universe of available users. Is Twitter a product that you envisioned? Like could it be 60 million US users or 100 million US users? Like how big do you think this product ultimately can be?

**Jack Dorsey *Twitter, Inc. - CEO***

Yes. So on Topics, we're not breaking out any numbers just yet, but I will paint a picture of what I believe is the opportunity. We still really haven't promoted them heavily within the service. So they're still a little bit hard to discover. The Topic browser is an initial go at what we want to do. It's over in the side menu if you're in the app and you can browse topics, and we continue to add topics every single day. We're adding more languages as well. But when we get a lot more confidence around the experience we're providing, we'll make it much, much more discoverable in addition to the timeline prompts in the navigation itself. So right now, we're doing work to look at our navigation and really make sure that we're putting our best foot forward in terms of making that discoverable so that people can see it immediately.

Onboarding is another opportunity obviously that we've been speaking to. And again, we want to make sure that the experience that people are going into is great before we put it in front of people who are just coming to the service or coming back to the service. So that -- those are the only blockers to that. But the early signals are quite positive, and I'm really, really excited about this feature. This has been a long time coming. It's something we have wanted to do for years, and we're finally at a point where we can bring it all together. So I do think this changes a lot.

In terms of the issues to our development speed, a lot of this has to do with our infrastructure. We're still working through how -- what we build on. And certainly, that affects the consumer side, but also the ad product side. The revenue product team has moved very, very quickly to focus on the core ad infrastructure. And at the end of the day, per the previous question, what this means is as we look at the core infrastructure and we look at how people -- how our engineers are actually building it that the better that is, the more stable it is, the easier it is to develop, it just means that we can run more experiments faster. We can build products much faster. We can learn much faster. We can get feedback loops from our customers much faster. So everything improves. And the same is true on the consumer side. We have to look deeply at our tools. We have to look deeply at our development time and what's blocking us. We have a better understanding of what some of those things are and also just our understanding of the service, how we utilize the data that we're seeing to better inform our decisions around experiments that we run. So we're working really hard to make sure that we can move much faster so that we can experiment faster, we can learn faster and we can ship much faster. And this is something that has plagued us for years, but we've put it as our #1 priority as a company. And we have an incredible team. Some of whom have been here for years, some of whom we've just attracted to the company to help us address this.

And to your last question, absolutely. I mean I think Twitter has value to everyone in the world. I think a big part of our work has been to help unlock that value for folks to help them understand why Twitter is valuable. A lot of people see Tweets every single day. They see them on television, they see them in newspapers. We haven't given them enough reason yet to come to the app and utilize it themselves. But everything that we're doing from interest to relevance in the timeline to conversations is towards that goal. And ultimately, this will come down to what people experienced when they first download the app or when they first open twitter.com. But we have the foundations in a really strong place where we can actually put a cohesive piece -- picture together for people. And that gets me really excited and confident that when people do hear Twitter, they'll have more reason to download and use it.

**Richard Scott Greenfield - *LightShed Partners***

And Jack, when you think about the Twitter browser for Topics, should it even be a browser? Like it seems sort of clunky. Like why not just say, like, you know what I'm interested in, like, why not just show me the 50 things that Rich Greenfield is interested in or that Ned Segal is interested in. Why give me the everything possible to topically follow?

**Jack Dorsey *Twitter, Inc.* - *CEO***

Yes. I mean these are just sequences. So by doing it this way, we get to learn. And we will certainly always have a mode where people can go into a list of topics to discover them. But based on the learnings that we're getting right now, we can use those signals to do more of that automatically. So the goal with all this is to move from something that is mechanical to start, to something that is more automated. And we just need more signal, and we need to continue to experiment more. But it's not long off.

**Justin Post - *BofA Merrill Lynch***

Two questions. First, on -- you see the DAU growth, any commentary on the amount of visits or time spent per user? Are you seeing engagement per user change notably?

And then secondly, the data business grew 9% last year. I think the year before, it was in the 20s. Can you give us an outlook for that business? How do you see the growth rate over the next few years?

**Ned Segal *Twitter, Inc.* - *CFO***

Thanks, Justin. So on the first part, we continue to be pleased with what we see from an engagement perspective. But the best way for you to measure is going to be to look at that growth in monetizable daily active usage as if that number is growing, it means that we're delivering value on a daily basis to people around the topics and events that they care about most. So nothing to update on there.

On the data licensing and other side, remember, there's 2 pieces to that revenue line. The first is the data and enterprise solutions opportunity where we feel really good about our execution. And as we mentioned a year ago, we said that we had executed so well on our strategy in bringing people to the right type of contract over the right term that we expected the growth rate to moderate. That proved to be the case, but we also continued to both renew our existing customers and find other new customers who we could help create a business or further build their business around our APIs. And there's lots more opportunity for us there. We made our APIs premium, and we're still seeing lots of opportunity in front of us around the data business. The second piece is MoPub, which is our mobile ad exchange. And we've got work to do there, and that's holding the growth rate down a bit. But we think we've got a good path forward. And one of the ways that MoPub will benefit is as we continue our work around more direct response-oriented ad formats, starting with MAP, that should benefit MoPub as well.

**Lloyd Walmsley - *Deutsche Bank***

Two, if I can. First, just how do you guys see the strong user growth impacting conversations with advertisers and just overall interest in the platform from the ad community? Does the acceleration and growth translate fairly quickly into excitement in the ad community? Anything you can share there would be great.

And then secondly, just kind of going back to the user growth, can you give us a sense for specific cohort behavior on newer user groups, particularly as we get into some of the big quadrennial events? Do you feel like your retention of those newer users is continuing to make improvement in traction?

**Ned Segal *Twitter, Inc. - CFO***

Thanks, Lloyd. First, on advertiser sentiment, it continues to be really strong. And they want to invest in a growing platform where they see the audience growing, where they know that they are thought leaders who are helping form opinions about their products or coming to learn and explore around their products in order to decide if those are things in which they want to invest. And that's helped us a ton. Whether I think about the conversations we have with advertisers at the Consumer Electronics Show or at other points during the year, the sentiment remains strong, and they have embraced our objectives. When we tell them that we're the place to launch something new or to connect with what's happening, that really resonates. When we share our thinking that we've got the most valuable audience when they're most receptive, that really resonates with them as well. And so we feel good about advertiser sentiment and the way that our DAU growth is contributing to that.

When we look at cohorts of people who are new to Twitter, we continue to be pleased with what we see in terms of their engagement and how they use the service. We also know that there's lots that we can do better for them. We're doing a better job of surfacing content for them, accounts they should follow, topics they should follow. But we know there's even more that we can do there to help them, but nothing new to report in terms of the cohorts and how they're behaving.

**Krista Bessinger *Twitter, Inc. - VP, IR***

Thank you. Operator, I think we have time for just one last question, please.

**Michael Levine - *Pivotal Research Group***

Two questions for you. One, basically, how would you categorize what the -- what R&D is able to do in terms of innovating on the DR front versus still having to rectify the issues around MAP? And I guess the second question is, a lot of folks have been focused on the Olympics as being a big catalyst, do you think there is a scenario that MAP can basically be rectified in advance of that event in Japan, which I know is a big MAP market?

**Ned Segal *Twitter, Inc. - CFO***

So thanks for the questions, Michael. On R&D. So we always try to lead with technology solutions, whether it's the work we do around health where we mentioned last quarter that more than half of the abusive Tweets that we action we're finding through machine learning as opposed to through people identifying them or this quarter where we mentioned that we have reduced the bystander reports by 27%, which we think is directly linked to the hard work that we're doing to be proactive and identify content that shouldn't be on the service before people pointed out to us. The same is true around our revenue products. We're rebuilding the ad server. We're coming out with a new version of MAP and leading to more direct response. Advertising formats for us over time will allow us to innovate faster and move faster, experiment faster. So we certainly think about leading with R&D when we think about the revenue products.

On the Olympics, so as important as it is for us when we step back and think about the larger opportunity for us to have more direct-response-related offerings, starting with MAP, when we think about a quadrennial event like the Olympics, and a lot of the advertising that you see around these, we feel like we're really well positioned with our existing ad formats. That isn't to say that we're not focused on launching the new version of MAP when -- as soon as we can, but it also means that the pre-roll that you often see around highlights, the connecting with what's happening that you just saw around the Super Bowl that you'll see around the Olympics in the summer are things that we feel like we're really well positioned to address with our existing ad formats. We feel great about the work we've done to make video a much bigger part of the service and the

experience that advertisers can deliver with on Twitter, and we feel like we're well positioned to help them deliver during the Olympics.

**Ned Segal *Twitter, Inc.* - CFO**

Alright. Thank you for joining us. We appreciate your interest in Twitter. We look forward to speaking with you next quarter.

Before I wrap, I just want to say happy birthday to my favorite listener. It's my dad's 80th birthday today, and I'm sure he's up and listening, although it's early and dark here in San Francisco still.

We next report earnings for Q1 on April 30 before the market opens. We will see you all then and on Twitter before then.