Twitter Q4 and FY 2017 Earnings Report
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PRESENTATION

Krista Bessinger
Senior Director, Investor Relations
Hi, everyone, and thanks for joining our Q4 earnings conference call. We have with us today our CEO, Jack Dorsey; and CFO, Ned Segal. We hope you've had a chance to read our shareholder letter published on our Investor Relations website this morning. Like last quarter, we'll begin with just a few prepared remarks before opening the call directly to your questions.

During the Q&A, we'll take questions asked via Twitter, in addition to questions from conference call participants. Questions submitted via Twitter should be directed to @TwitterIR using the #TWTR.

We would also like to remind everyone that we'll be making forward-looking statements on this call, such as our outlook for Q1 and the full year of 2018, and our operational plans and strategies. Actual results could differ materially from those contemplated by our forward-looking statements, and reported results should not be considered as an indication of future performance. Please take a look at our filings with the SEC for a discussion of the factors that could cause our results to differ materially. These forward-looking statements on this call are based on information available to us as of today's date, and we disclaim any obligation to update any forward-looking statements, except as required by law.

Also during this call, we will discuss certain non-GAAP financial measures. Reconciliations to the most directly comparable GAAP financial measures are included 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. An audio replay of this call will also be available via Twitter and on our website in a

Jack Dorsey
Co-Founder, Chief Executive Officer and Director
Good morning, everyone, and thank you for joining us today. First, I'd I like to take a moment to acknowledge Anthony Noto and all of his impact to Twitter. He's been an incredible advocate for us and a trusted partner to me and our leadership team. Thank you, Anthony. We wish you all the best in your new role.

Now let's talk about our results. Q4 was a strong finish to the year with a return of revenue growth, GAAP profitability and an increased shipping cadence. I'll outline each of these in more detail. First, we're really proud to report a return to revenue growth in Q4, with total revenue increasing 2% year over-year and owned-and-operated advertising revenue increasing 7% year-over-year, reflecting better than-expected performance across all of our major products and geographies. This was driven by continued strong engagement growth, improvements in our revenue products, improved ROI and better sales execution.

Second, we delivered on our goal of GAAP profitability in Q4 and achieved record GAAP net margins and target adjusted EBITDA margins, reflecting our continued prioritization and disciplined execution across all of our priorities.

And third, our audience and engagement continue to grow. We increased our shipping cadence and launched new features to help people discover and talk about what's happening on Twitter, including making it easier to thread multiple tweets together and expanding our character limit from 140 to 280 characters so people can say a little bit more. As a result, we saw our fifth consecutive quarter of double-digit DAU growth.

We're investing to make 2018 a year of growth and expect our expenses to more closely align with revenue after a year of significant margin improvement. We're proud of the steady progress we made in 2017, and we're confident in our path ahead. We've got a significant opportunity ahead of us to put Twitter in as many people's hands as possible and make the service more relevant to more people every single day.

And now back to Krista for questions.

QUESTION AND ANSWER

Doug Anmuth
I have 2. First, can you just talk about the key factors improving your ad relevance in the quarter, in particular, some of the stuff around ad serving logic and just sort of improved click-through rate? And then just second, on DAU growth, your fifth straight quarter of consecutive double-digit DAU growth. How do you think about the potential to grow DAUs going forward even as MAU growth has been more muted? If you could talk about that.

Jack Dorsey
Yes. So in terms of improved ROI and what's going on with our ad relevance drivers and the drivers on general, we're benefiting from our larger -- from a much larger engaged audience. So we've seen 8 quarters of solid year-over-year growth and DAU with the last 5 quarters posting double-digit growth. We have a lower price, so CPE is down more than 40% year-over-year in aggregate. Our products are performing better with a higher CTR. We continue to be a differentiated offering to our advertisers, so we're delivering an influential audience and realtime relevance for audience. And we've also been investing a lot in measurement as well. So we're scaling our measurement capabilities to 62% more custom studies in Q4 2017 versus a year ago.

Ned Segal
And Doug, to your question on DAU, we don't give guidance for audience and engagement growth. But we do feel like the product improvements that we've made over the last couple of years ought to continue to compound and should be a driver of audience and engagement growth going forward.

Heath Terry
To follow up a bit on the question of MAU growth, to the extent that we saw relatively stable MAUs this quarter, we know that you've undertaken some efforts to improve the quality of the MAUs on the platform or the quality of the users on the platform, eliminating bots and enforcing some of the safety policies more aggressively. Should we look at this 330 million this quarter compared to, say, 330 million

last quarter and consider it a higher-quality number? And then to the extent that we are thinking about user growth into '18, are initiatives around the same sort of Trust & Safety things likely to impact that reported number?

Ned Segal
So I'll let Jack start on IQ and then I'll go into the numbers a little bit for you.

Jack Dorsey
So just to give you an update on how we're thinking about information quality, this is a new term we used in our letter, and I wanted to define it for you. We're looking at information quality as a cohesive way of addressing all malicious activity on the service, and that's inclusive of spam, malicious automations and also fake accounts. And we have 3 main priorities in this approach. One is we're going to improve how we detect and remediate automated content and malicious manipulation. We're going to amplify the quality content across all of our products, and we're going to start by focusing on search and trends. And we're also going to be giving a lot more context to help people identify more authentic and credible accounts and tweets. So we are working on the overall quality of the content and tweets on the service but also the accounts.

Ned Segal
And just to give you a little more sense around the numbers, we mentioned in the letter that MAU grew 4% year-over-year. It was the third consecutive quarter where it grew 4%, driven by our ongoing product improvements. But we continue to be focused on growing usage of Twitter as a daily utility. When we think about MAU, though, there were those 2 negative impacts that we talked about in October, one was the change to Safari's third-party app integration. That was a negative 2 million impact, 1 million of which was in the U.S. and 1 million was international. And then we saw the typical seasonality, which can be negative in the fourth quarter. We also saw a meaningful headwind from the information quality effort that Jack talked about as we continue to focus on improving the quality of the information and users on Twitter. It's hard to predict how those information quality efforts could impact user accounts over time. Some of the efforts that we undertake are to remove dormant accounts, others are to remove accounts on the day of sign-up so they don't even end up in a customer account, and then others do affect MAU or DAU, and we're always going to do the right thing for the service.

Colin Sebastian
A couple from me. I was hoping you could add some color to the pace of adoption of the Video Website Cards. Seems like this was a fairly significant incremental contributor in Q4. And how much of that is on the pricing side or unlocking demand from a larger advertising audience, for example? And then as a follow-up to the comment on expenses, should we conclude from that, that there are fewer opportunities at this point to rationalize costs following a couple of years of focus on that? Or are there specific areas where you're anticipating adding to the headcount or expenses? I'll leave it at that.

Ned Segal
Great. Thanks, Colin. So on the Video Website Card, it's a great example of an investment in improving ad formats, which has really begun to pay off. We did see incremental dollars flow to Twitter as a result of the Video Website Card and the Video App Card, 2 newer ad formats which were a positive driver in the fourth quarter. And we just like to think of those as examples of ways that we've been able to improve the dialogue and improve the investment in Twitter by advertisers. If you look at expense growth, there may be opportunities to rationalize costs, but we're really focused on investing to grow in

2018. We'll invest in the product, both in our information quality efforts and in driving audience and engagement. And we'll also invest in sales to make sure that we've got the right folks on the ground talking to advertisers about all the great things happening on Twitter right now. So it's those investments that ought to cause expenses to more closely align with revenue and would be the reasons that margins ought to look a lot more like 2017, then expanding from here after a year of significant margin improvement.

Anthony DiClemente
Just a couple of follow-ups on the results in the fourth quarter for me. Can you just talk a little bit more, Ned about any particular benefit, if you can quantify it, that would be great, from TV ad market seasonality or seasonal strengths that you saw in the fourth quarter as it relates to branded advertising or holiday season, which we could tell across the retail vertical is quite strong? And then also maybe similarly, just anything that you can give us on the performance of brand versus direct response or the split between those channels? I think you said brand was the largest contributor, and the sustainability, if we think about revenue in terms of brand versus DR, going forward.

Ned Segal
Sure. Thanks, Anthony. So a couple of things there. We saw strength throughout the quarter, and the advertising business definitely sees seasonal strength in the fourth quarter. But it feels like a lot of the things that we saw in the fourth quarter are results of the audience and engagement growth and the ongoing improved execution and better ROI that we're able to deliver to advertisers. The tentpole events, whether it's Black Friday or a big sporting event, are still positive drivers at Twitter, but we're seeing their impact extend over a longer period of time. And we're turning into an always-on ad buy for advertisers, which has been great for us. I'm trying to remember if there's another part to your question.

Anthony DiClemente
Direct response versus branded advertising and how that mix might be changing.

Ned Segal
Yes, Jack, do you want to talk a little about that?

Jack Dorsey
Yes. So we're actually doing really well with our DR products. Ned mentioned the health of the Video Website Cards and also the Video App Cards. So DR outperformed all of our expectations in Q4 and benefiting from the platform improvements. And also, the introduction of a new DR product, which is the Video App Card. So this has added up to being a pretty strong product for us, and we're excited to continue improving it.

Ned Segal
Brand continues to be the biggest driver, but we're really pleased with how DR has played out for us right now.

Krista Bessinger
And the next question comes from Twitter, comes from the Twitter account of Lindsay Barber, and he or she asks, "Will there ever actually be figures for DAU?"

Ned Segal
So thanks for the question from Twitter. We have disclosure principles that we use to carefully weigh what we share, and they are to make sure that we're giving investors the best information we can to help them make good decisions about our stock while weighing things that impact our ability to run the business and make good decisions internally. And we have a high bar for making changes and an even higher bar for making changes inside of a year to make sure that you all are able to compare things from one period to another. As we balance those, we feel like continuing to share the absolute number of MAU, as we've done for some time. It gives you a sense for a number that's higher up in the funnel. And giving you the percentage growth for DAU gives you a sense for our trajectory in driving usage of Twitter as a daily utility. We get percentages for other things, too, like cost per engagement and ad engagements to give you a sense for the trajectory there, and so we'll continue to do that.

Matt Diamond
This is actually Matt Diamond on Lloyd's behalf. I wanted to ask the DAU question a little bit differently. Ned, it was mentioned in 4Q that there are roughly 2 million people a day coming back to the platform. I'm wondering, does that trend still obtain? And anything we should keep in mind as we get into 2018 as far as that trajectory is concerned?

Ned Segal
Hey, Matt, thanks for the question. So we said on the call in October that more than 2 million people come to Twitter every day that haven't been on the service for 30 days or more, that 2/3 of them have been on Twitter before but haven't been for at least 30 days. So there's the opportunity to get them to come back more frequently and stay longer when they come. And 1/3 of them have never been on Twitter before. Those numbers have been really concept for a long time. They're a great way to think about the health of all parts of the funnel and the big opportunity for us to continue to drive increased usage of Twitter as a daily utility. We're -- we continue to be focused on the product improvements that we can drive to continue that momentum. Jack, do you want to talk a little bit about some of the work we're doing on the product side?

Jack Dorsey
Yes. So we continue to focus on our core job, which is keeping people informed about the world. And we continue to benefit from applying machine learning and deep learning to DRs of the product where people spend a majority of their time, which is the home timeline and also notifications. We're broadening where we're applying those technologies to more the surface areas, specifically the discovery surface areas of the app. So one of the things that a number of you may have noticed is a Happening Now module at the top of your timeline. So as we get indication that you are interested in a particular team, for instance, and that team is currently playing, we will put a call-out right at the top of your timeline, which you can tap into and actually see the scores or stats from the game live and also all the conversation and all the commentary from the game as well. This is a first step in a much more cohesive strategy around events that's both inclusive of all the conversation but also potentially live video if we have access to that. And this is -- we've been talking a lot about topics and following interests in the past. This is one manifestation of that, that we're really excited about. And we think it really gets to the heart of why people come to Twitter in the first place, which is to follow their interest and follow what's happening. So we're looking more and more in 2018 making interests and topics and events a lot easier to follow and see what's going on.

Matt Diamond
Okay, great. And one follow-up from me, if I could. CPE looked like it was down. It was down 42% year-over-year. It looks like that's in the same ballpark as 3Q. Could you talk about the puts and takes for that metric going forward?

Ned Segal
So we don't give guidance around a number like that. But you're right, Matt, that CPE has been down consistently over the course of 2017. That was largely driven by mix shift, the ongoing mix shift towards video, which is our largest ad format, and continue to grow this past quarter. CPE is an important input to the improved ROI that we're able to deliver for advertisers. The other part is the ad engagements, which were up 75% this past quarter. When advertisers are getting lower costs and higher click-through rates and more engagements due to better ad formats, higher relevance and more audience and engagement, they get a better ROI on Twitter. We've seen our CPMs to be really healthy, and we expect the CPM trend to continue. And we try to think more about CPMs than we do about the inputs, that is CPE or other things.

Richard Greenfield
A couple of questions. First, if you're doing your job, Jack, I presume we should never have to go to an Explore tab or -- and a lot of people have talked about, couldn't they just create a video tab for all the live video. I assume if you're doing your job right, you should show me exactly what I want to see, tweets -- whether that's tweets or video right in the news feed as I'm scrolling through. Wondering, as you look back on kind of the product progress you've made over the last year, how would you grade yourself and the company's progress against that goal? Number one. And then, two, it seems like this year, you got some pretty large kind of big events in the U.S., obviously, midterm elections, but thinking globally, Olympics starting later today and the World Cup this summer. Just wondering how that kind of impacts kind of the quarterly results when you think about year-over-year on a global basis.

Jack Dorsey
Yes. So your first question, I think, had multiple parts, which is serving our job around keeping people informed and really meeting people where they are in the timeline. One of the thing to note is that the Explore tab for us is a way for us to test a lot of concepts and experiments. And we've been playing around within that tab. And as we get better and better signals after people exhaust their timeline and go to explore to find what else is happening, we can utilize that to actually get a lot more confident around what to put in the timeline. So the Happening Now module at the top of the timeline is one such example where we are testing and experimenting with sports, in particular, around making sure that when people are interested in a particular team or a particular event, it appears right at the top of their timeline so they notice that they can tap into it. If we have a live video associated with it, it's right there and it starts playing automatically with a score. But they could see the conversation, they see all the commentary and can also share that as well. So as we learn more and as we continue to get a lot more confident around the signals and get better and better at applying technologies like machine learning and deep learning, you'll see more transition from Explore to the timeline. And our goal is to make the timeline more personalized and a lot more relevant to people. So you're right, as we continue to do our job better, we -- you'll see more and more of that in the timeline right where you open up the app and where you spend them during the time. And that has been a big focus for us for the past 2 years is adding more relevance to the timeline and to those notifications. So I think we've been doing a really good job at that because in order to do that, we also had to make sure that the infrastructure was ready for it. And we've been cleaning up a lot of that and making sure that we can scale and also building up a discipline

that we could apply machine learning to every surface area of the product. And I feel really confident in our ability to do that. And that allows us to move a whole lot faster in 2018 and be a lot smarter about how we introduce tweets and also events and accounts to people right where they spend the majority of their time, which is in the timeline. And I'll turn it over to Ned for the tentpole events.

Ned Segal
Rich, so you asked about events coming up in 2018. A couple of thoughts there. The first is there are events at any given period that can be positive drivers for the business, both in driving people to Twitter or the event that's happening on Twitter or just the conversations happening on Twitter. In the fourth quarter, we lapped things like the election and the NFL football, and still we're able to grow our O&O advertising revenues 7% year-over-year. That was a big source of pride for us. When we look ahead, you're right, there are a number of events coming up this year, and those are great opportunities for us. At the same time, we're seeing their impact be less so than it might have been in previous periods because people are buying Twitter as an always-on ad buy because people are buying over longer periods of time as opposed to just for a given day. And as the big -- the business and the revenues become increasingly global, some of these national tentpole events, they're still positive drivers, but their impact on the business more broadly can be less so than it might have been in the past.

Richard Greenfield
Maybe I was unclear. I actually didn't mean it from a revenue standpoint. I mean, the color is great. I was actually just thinking from a user acquisition issue, it seems like historically, some of these big events have been very useful in driving traffic towards Twitter from the potential users.

Ned Segal
Yes, that's right, Rich, and that ought to continue to be the case. I'll give you some live stats, by the way, which give you a sense for one of the things that we're doing on the audience and engagement side to continue to drive the numbers and also to improve the dialogue with advertisers as we give them new things to advertise against on Twitter. We streamed more than 1,100 events in the fourth quarter, up from 830 in Q3. We had 22 new live streaming partnerships, including 9 international deals. Bloomberg's TicToc is a great example of one of those. It's a 24/7 news network, which is about a month in, is averaging 750,000 daily views and more than 50 million tweet impressions since its launch.

Justin Post
My question is really on time spent on Twitter. Is that something you monitor or find important? And then when you look at your time spend or activity per user, how do you think about long-term monetization versus, say, Facebook or some other social companies out there? Do you think you have a lot of room ahead on either ad loads or just where you are now versus maybe Facebook?

Ned Segal
Great. Thanks for the question. We feel good about where we are from a time spent perspective. But what we really talk about when we think about audience and engagement and the best way to measure the usage of Twitter is the daily utility, is that DAU growth which was up double-digits for the fifth consecutive quarter. We try not to focus too much on any one metric underneath that when we look at engagement because it might put too much attention on it relative to others. You asked about ad load. Ad load is typically higher in the fourth quarter given seasonal demand. It sometimes drops in the first quarter as well. When you take a step back, though, we think that overall, we continue to be more demand constrained than supply constrained across the business. When you look at the fourth quarter

and you see click-through rates having continue to improve and cost per engagement having continue to come down, that's driven better ROI for advertisers and has been a big driver for us.

Eric Sheridan
Now that we're getting to GAAP profitability, we're also throwing off a lot of free cash flow within the company. How do you revisit or think about the cash you have on the balance sheet, what the best means are to allocate that capital, either to drive organic growth through M&A or thinking about returning capital to shareholders? Just love to get a general sense of what the framework is there as you think through your balance sheet.

Ned Segal
Thanks for the question. We're really pleased with the $550 million of free cash flow that we've generated for the year. And we try to, every quarter, look at our capital structure and make sure that it's appropriate for the business and the opportunities that we see, and there are no changes to our thinking today. So nothing new to report there, Eric.

Jack Dorsey
Thank you, James. The Board -- our Board of Directors have a fiduciary responsible to always consider that question and I think our focus on that is appropriate and we presented our 2016 plan and getting ready for our 2017 plan. They're going to hold us accountable for executing that. As CEO, I'm -- I've just seen a lot of the benefit of our focus and our disciplined execution over the past year. And the changes we're making to the product focused on the use cases that we believe are important, that real-time live news and social commentary are actually increasing retention and engagement. And I think there's just so much farther to go in terms of our strength, as not only a service of importance, but also a company and business of importance. And we're focused right now on what matters most and what we need to fix. And we're seeing really healthy signs that are pointing us in the right direction in terms of what we need to continue to do. So I have a lot of confidence in the ability and also that our 5 priorities are the right ones to drive sustained growth over time.

Krista Bessinger
And we will take our next question from Twitter. It comes from the Twitter account of Hardeep Kefra, and Hardeep asks, "Is there less confusion for new users since you've expanded the character limit?"

Jack Dorsey
Thanks, Hardeep. So we have completed the launch of 280. So it's set to 100% of all existing and everyone new to the service. And just to remind people of why we did it. One of the things that we're seeing is that people would bounce up against the 140-character limit consistently and actually abandon tweets completely. So we already experiment with giving them a little bit more room. And one of the things we're watching for is to see if the average tweet size would go up as a result, and it has not. People do have -- they're even more seeing less abandonment of tweets, but we're also seeing a lot more engagement. We're seeing a lot more retweets and we're seeing a lot more mentions. And we're also seeing people get more followers and return more often. So we do believe that it is minimizing some of the complexities and some of the confusion around Twitter in general. But more importantly, it's enabling people to be a lot more expressive and share what's on their mind. And that little bit of room extra has really proven to help.

Mark May
First, you've signed a number of live content partnerships over the last year or 2, and I was wondering if you could comment on what impact those have had on the advertising side of the business. And then secondly, you guided for expenses to grow at a similar rate as revenue this year. But just to calibrate expectations, I think the margin comparisons are far easier in the first half versus the second half. So the question is, is it fair to expect, at least in the near term, we'll continue to see the benefits on margins on a year-on-year basis from the recent expense rationalizations that you've been pursuing in 2017?

Jack Dorsey
Thank you, Mark. I'll take the first question. So it's had a positive impact on the advertising side. We're definitely seeing a lot of positive sentiment around live in our streaming efforts, mainly because it really fits perfectly with Twitter's value. People come to us to see what's happening and to understand what's going on in the world based on their interest. And live video helps us be one of the fastest places to see what's happening. But more importantly, generates a conversation and shows the commentary associated with it. One of the things that is really important to us is continuing to broaden our live strategy more towards events, as I talked about previously on the call, so that whatever event is happening, whatever topic and interest they are interested in, you can quickly get to the conversation and the commentary. In some cases, we will have an associated live stream or multiple live streams associated with that topic or that interest or that event. But no matter what, you always see the conversation and you always see the top commentary from experts within whatever field that it has to do with it. So we continue to see a lot of benefit from the strategy, and we're really excited to approve and build upon it.

Ned Segal
Hey, Mark, on your expense question, so we gave guidance for the quarter for EBITDA and for EBITDA margins. And in a seasonal business like ours where the expense base might be growing from one period to the next, as we add headcount to invest in our priorities, you -- the opportunity for margin expansion comes from higher revenues, which sometimes you see from seasonal strength and other things. When we look out over the course of the year, we think that our expenses ought to more closely align with revenue than they have in the past. And that was the comment in the letter that I think you're referring to as we invest for growth in 2018. But it wasn't -- we didn't talk much about the quarters and how it ought to play out. We just gave you guidance for the first quarter.

Ronald Josey
Jack, I think you mentioned talking about investing in sales in addition to product. And just wondering if you could provide additional color here in terms of how sales has situated given efficiencies improving, direct response is getting better, that would be great.

Jack Dorsey
So we're pretty happy with our execution of the sales team and overall around the partnerships team. And we continue to see a lot of strength in that team. We made a move recently with having Matt Derella, who's our VP of Global Revenue and Operations, to lead our sales efforts and also take on additional responsibilities around live and content partnership. So we're combining strengths there. And this is a natural progression for Matt as he brings a really commercial mindset, and will work hand in hand with the product team to make sure that we're creating partnerships that benefit everyone on Twitter. So we're pretty happy with where we are, the execution and all the discipline that we've driven around the team.

Ned Segal
Matt, I'll add -- or sorry, Ron, I'll add a couple of things to that. We are investing in sales right now because we see opportunity out there to continue to improve the dialogue with advertisers. We have such a different conversation with them now, whether it's an upfront conversation or otherwise than we had a year ago, given the improved ad format, given the improved audience and engagement and the better ROI that our sales people are able to talk to advertisers about. Those things have emboldened us to continue to invest in sales. Our attrition numbers have come down in sales recently, and we'll add headcount there over the course of the year.

Mark Mahaney
Two things. One, do you need to do any backfilling in terms of senior management with Noto moving on? And then secondly, in the past, I think in terms of international markets, I think you called out a few, I think Japan was one, where you think you've had really good progress. Any updates on what may have contributed to the MAU growth in international markets? Or -- and/or that DAU growth, is there anything to call out there in terms of particular international markets that are driving that?

Jack Dorsey
Thank you, Mark. We are not going to have to do any backfilling of the team with Anthony in his departure. This is a testament to what Anthony has built, strength of the bench, and the strength of the bench of the executive team as well. So executives from my team will be assuming a bunch of his roles, and we haven't skipped a beat. And we're really excited about looking at this org in a new way. But we have a lot of strength around the table and a lot of confidence to continue the strategy.

Ned Segal
On international, Mark, a couple of things to share. On the revenue side, we saw strength in all of our geographies this past quarter. So we were about flat in the United States, and we grew in every other region. But we saw particular strength in Japan and in Asia Pacific. In Asia Pacific, in particular, the strength came from the China export market where we continue to help the Chinese brands export their message outside of China. But Europe grew as well, and seeing the breadth of improvement as we returned to revenue growth was a real source of pride for us. If you flip over and look at audience and engagement, we grew in 5 of our 10 largest markets. We grew double digits, and that demonstrates the breadth of the ongoing improvement in audience and engagement. Things like Twitter Lite, it's still early days, growing off of a small base, but that helps us in some of the emerging markets. And the product improvements that Jack talked about are things that help us all over the world.

Brian Nowak
Just a very good O&O advertising growth in the quarter. Just be curious for any more color on which specific ad categories or ad verticals kind of outside of DR that drove the strength. Then on the plan in the sales force, where do you see the biggest opportunity is among the advertising categories to really drive incremental share in 2018? And then the second one, on the investments as we think about 2018. Jack, can you just talk to some of the friction points you still see that are causing the 2 million daily visitors to not really stick around and use Twitter as a utility that should be you're focused on fixing?

Ned Segal
So on the ad formats, we saw strength across all of our major ad formats. Brand was a big driver. Jack talked about direct response as well. We're really pleased with the execution there and the fact that the

success was broad-based. On sales, can you just repeat that part of the question, Brian? I want to make sure I answer it well.

Brian Nowak
Yes. Is there any specific verticals or categories of branded advertisers that you really see an opportunity to send more salespeople forward and saying you need to spend more on Twitter, whether it's travel or CPG, just kind of thinking about the advertiser category?

Ned Segal
So the strength we saw from advertisers was also broad-based this quarter. But you can imagine, if you're launching a product, if you were -- had somebody's product on your network, if you were advertising towards consumers during the holiday season, Twitter was a great place to do that. But the success that we saw was broad-based. We mentioned in the past that our top 100 advertisers grew in the U.S. and internationally. That continued to be the case in the fourth quarter. And a lot of the work now is taking the message and the execution that has resonated so well with those top 100 advertisers and extending that to a broader group of advertisers. And so some of this is just having more people on the ground to get that great message out there as opposed to thinking about specific verticals.

Jack Dorsey
And Brian, on the point of friction, it becomes increasingly clear that people come to Twitter with a very specific purpose, which does not look like a similar purpose as they would expect from a social network. So people come to Twitter because they're interested in something. They're interested in following what's happening within that interest or within that topic. And one of the things that we don't do well today is match them with that interest very quickly. So we're looking at on-boarding as one area and specifically, the sign-up flow to make sure that we take into consideration the context that they're in, where they are, when they're coming in and what they're interested in and matching them with that interest as quickly as possible. Less and less having to do with specific accounts that they follow and more to more – more and more having to do with matching them with their interest and topics. So everything that we're exploring in the Explore tab and around events really speaks to a bunch of this work. And we're learning a ton as we introduce these new experiments about how to introduce people and at what point to introduce people to these interests and to these topics. So the biggest push for us is really to make sure that we have a really compelling events experience and an interest experience, and then to match people with those interests as quickly as possible as they come in. And we're really excited about what we're going to be able to do in 2018.

Krista Bessinger
And our next question comes from Twitter. It comes from the account of Hal Jam, and Hal asks, "Is there any update on monetizing TweetDeck?"

Jack Dorsey
Thank you for the question. No, no update today. We're always looking at how people are using TweetDeck. It's a fantastic product, especially for higher-volume usage. We see a lot of usage with brands and also in newsrooms, and we're looking at opportunities there. But no update today.

Ned Segal
It is just a great example of the ways that we think about further monetizing the platform. The data enterprise solutions business is the best example of that where we continue to see strength in the fourth quarter. But as Jack mentioned, nothing new to share on TweetDeck.

Brent Thill
I just want to follow up on Ned's comment. What you're seeing outside the top 100, is there a little more color in terms of some of the metrics and the momentum that you're seeing as those advertisers come on the platform?

Ned Segal
We -- so the success with the top 100 advertisers has been driven by a few things. And if I don't get to your question, then just come back around it, I'll make sure that I'm answering it. We think about – the message that's really resonated with them has been the improved audience and engagement, the better ad formats and improved relevance, which have led to better ROI. The sales execution, which is just making sure that we -- that we're out telling the story and that we're measuring the success and impact that we're having with advertisers, has had a big difference. And that's one of the things that's led to our confidence and allows us to make 2018 a year where we invest to grow at Twitter. It does bring to mind something else, Brent, which I should just share. When we look out over the course of this year, we think that the sequential growth rates for total revenue ought to look a lot more like 2016 than they did like 2017, given what a year 2017 was and all the puts and takes that there were.

Brent Thill
And just to clarify, just in terms of the on-boarding for the small- and mid-sized businesses. Can you just talk a little bit about the initiatives going forward and the momentum that you're seeing there?

Jack Dorsey
Yes. So in terms of self-serve, this is -- it's just still very, very early, but we're really excited about this opportunity. So we have millions of small- and medium-sized businesses on the service. And we made 2 moves recently. One was with the TweetComposer. We launched a new promoted TweetComposer, and that simplifies the process of creating a new promoted tweet. It drove 23% increase in spend on Twitter among advertisers who had access. We also moved into beta from alpha our Twitter Promote Mode, which is a subscription advertising product. We entered in public beta in the U.S., U.K. and Japan, and the early results have been really positive. We've seen significantly better retention among the subscribers. So we're going to continue to look at these results and iterate those 2 products and look for opportunities for more.

Ned Segal
Great. Thank you. To recap, we made significant progress this quarter. We returned to revenue growth. We achieved our goal of GAAP profitability, and we reached 5 consecutive quarters of double-digit DAU growth. Thank you all for your time and your support, and we'll see you on Twitter.