

## **Operator**

Good afternoon. My name is Mike, and I will be your conference operator today. At this time, I would like to welcome everyone to the Facebook Fourth Quarter and Full-Year 2017 Earnings Call. All lines have been placed on mute to prevent any background noise. After the speakers' remarks, there will be a question-and-answer session. [Operator Instructions] This call will be recorded. Thank you very much.

Ms. Deborah Crawford, Facebook's Vice President of Investor Relations. You may begin.

## **Deborah Crawford**

Thank you. Good afternoon and welcome to Facebook's fourth quarter and full-year 2017 earnings conference call. Joining me today to discuss our results are: Mark Zuckerberg, CEO; Sheryl Sandberg, COO; and Dave Wehner, CFO.

Before we get started, I would like to take this opportunity to remind you that our remarks today will include forward-looking statements. Actual results may differ materially from those contemplated by these forward-looking statements. Factors that could cause these results to differ materially are set forth in today's press release and in our Quarterly Report on Form 10-Q filed with the SEC. Any forward-looking statements that we make on this call are based on assumptions as of today, and we undertake no obligation to update these statements as a result of new information or future events.

During this call, we may present both GAAP and non-GAAP financial measures. A reconciliation of GAAP to non-GAAP measures is included in today's earnings press release. The press release and an accompanying investor presentation are available on our website at [investor.fb.com](http://investor.fb.com).

And now I'd like to turn the call over to Mark.

## **Mark Zuckerberg**

Thanks, Deborah, and thanks, everyone, for joining us today. 2017 was a strong year for Facebook in many ways. Our community continues to grow with more than 2.1 billion people now using Facebook every month and 1.4 billion people using it daily. Our business grew 47% year-over-year to \$40 billion. I'm proud of the progress that our team has made, and the ways that Facebook is helping people around the world. Giving people a voice who didn't have one before, strengthening relationships by helping family and

friends stay connected wherever they are, and enabling more than 70 million small businesses to grow and create jobs.

But 2017 was also a hard year. The world feels anxious and divided and that played out on Facebook. We've seen abuse on our platform, including interference from nation states, the spread of news that is false, sensational and polarizing, and debate about the utility of social media. We have a responsibility to fully understand how our services are used and to do everything we can to amplify the good and prevent the harm. This is my personal challenge for 2018.

One of the most important things we can do is make sure our services aren't just fun to use, but also good for people's well being and for society overall. So far this year, we've already announced a couple of important updates. The first is prioritizing meaningful social interactions over passive consumption of content. Research shows that strengthening our relationships improves our well being. When we use social media to connect with people that correlate to the long-term measures of well being that you'd expect like happiness and health.

But passively watching videos or reading articles may not have those same effects. You can think about it this way. When you see a photo from a friend at News Feed, that's not just content that makes you smile or laugh, it's an opportunity to connect with that friend to reach out to them and to remind them that you care about each other. And that connection is deeply important to us as people. But when you see a video or a news articles, even if it's informative or entertaining, unless you start a conversation around it, you're not building a relationship.

We've also gotten feedback from our community that these moments that lead us to connect to the unique experience that people want and expect from Facebook. But in the last couple of years, the ecosystem of public content like video, news, and post from businesses has grown massive to the point where it's starting to crowd out the personal connection that people value most.

News and video will always be an important part of Facebook. But when people are spending so much time passively consuming public content that it starts taking away from the time people are connecting with each other, that's not good. So let me be clear, helping people connect is more important than maximizing the time they spend on Facebook.

As a result of this update, you will now see more content from friends, family, and groups that lead you to interact with people and less public content that leads to more overall time spent. Now as I made clear

announcing these changes, I expect the time people spend on Facebook and some measures of engagement will go down as a result. But I also expect the amount we actually interact with each other to go up over time. We are already starting to see this play out.

On our last earnings call, I said that video done well can bring people together. But too often today, watching video is just a passive experience. To shift that balance, I saw that we were going to focus on videos that encourage meaningful social interaction, and in Q4, we updated our video recommendations to meet other quality changes to reflect these values.

We estimate that these updates decrease time spent on Facebook by roughly 5% in the fourth quarter. To put that another way, we made changes that reduced time spent on Facebook by an estimated 50 million hours every day to make sure that people's time is well spent. That's how serious we are about this.

Now we don't normally share time metrics because they're not the best way of understanding engagement. But this shows how committed we are to making sure that the time you spend on Facebook is valuable. Through this process, we've also got the sense of how some updates impact other metrics as well. For example, changes we made to improve quality in the fourth quarter contributed to a decline in people using Facebook daily in some country.

By focusing on meaningful interactions, I expect the time we all spend on Facebook will be more valuable and I always believe that if we do the right and deliver deeper value, our community in our business will be stronger over the long-term. In this case, it intuitively makes sense. If people interact more that should lead to a stronger community, and we already know that time in News Feed interacting with people is more valuable than time passively consuming video or news.

When you care about something, you're willing to see ads to experience it. But if you just come across a viral video then you're more likely to skip over it if you see an ad. So I want to be clear, the most important driver of our business has never been time spent by itself. It's the quality of the conversations and connection. And that's why I believe this focus on meaningful social interactions is the right one.

The second update we announced is about making sure the information you see on Facebook comes from broadly trusted in high quality sources in order to counter misinformation and polarization. And the idea is this update will show more news from sources that are broadly trusted across the community and not only by those who read them directly.

For example take the Wall Street Journal or The New York Times, even if you don't read them or if you don't agree with everything they write, most people have confidence that they're high quality journalists. On the flipside, there are blogs that have intense following, but are not widely trusted beyond to their core audience. We will show those publications somewhat less.

Preventing false news hate speech and other abused is another important area of focus for us. In order to protect the security and integrity of our platform, we're investing in both people and technology. We now have around 14,000 people working across community ops, online ops, and our security efforts. That's almost double where we were a year-ago.

We've also built new technology to detect suicidal posts that have helped first responders reach more than 100 people who needed help quickly and we've built AI systems to flag suspicious behavior around elections in real time and remove terrorists' content. Thanks to our AI systems, 99% of the ISIS and Al Qaeda related terror content we take down is now removed before anyone even flagged with us. And in some cases before anyone sees it.

We've also made progress demoting false news in News Feed, which typically reduces an article's traffic by 80% and destroys the economic incentives that most spammers and trolls farmers have to generate these false articles in the first place.

Finally, we've started rolling out a major ad transparent effort. We support Congress passing legislation to make all advertising more transparent. We're not going to wait for them to act. We've already begun launching a way for anyone to view the ad, a pages running on Facebook, Instagram and Messenger, even if they aren't in the intended audience.

And we're testing this in Canada first with the goal of rolling it out in the U.S. this summer ahead of the mid-term election. As I said last quarter, I expect these investments on top of other investments we're making will significantly impact our profitability. But just like the changes we're making that will impact time spent these investments will help us build a stronger community over the long-term. Now building a stronger community also means delivering on our product roadmap for the next three, five and ten years.

Over the next three years, we know video will continue to grow. So our job is to build a video experiences that help people connect with family, friends and group. That's why I'm excited about Watch as a place to connect with

people who have similar interests and why we launch a product like Watch party, where friends can watch a show together.

Another important shift that we're seeing across the industry is the growth of Stories. We expect Stories are on track to overtake posts and feeds as the most common way that people share across all social apps. That's because Stories is a better format for sharing multiple quick video clips throughout your day. The growth of Stories will have an impact on how we build products and think about our business, including Whatsapp and Instagram which are the number one and number two most used Stories product in the world.

Beyond the video, we have a long roadmap working to help people connect in meaningful ways. Today, more people are using groups than ever. These include smaller groups of friends and family and also larger communities where people connect around shared interests. We are focused on helping more people find the right communities for them and giving group admins and leaders the new tools they need to run these groups and help them grow.

The goal of the marketplace is to connect people through commerce. More than 700 million people each month now come to Facebook to buy and sell things. We've launched marketplace in 30 countries last year, including 11 countries in the last quarter alone. Over the next five years, we remained focused on building ecosystems around our services had lots of people already.

In Messenger and WhatsApp, we are working to give businesses more ways to communicate with their customers. We launched a plugin for Messengers that people can chat live with companies on their websites, and now more than 2 billion messages are sent between businesses and customers every month.

WhatsApp recently crossed 1.5 billion monthly active with people now sending more than 60 billion messages every day. A growing number of these messages are between people and companies, which is why we launched WhatsApp business. A new app designed specifically for small and medium businesses to connect with people they want to reach.

Over the next 10 years, we are working on the foundational technologies needed to bring the world closer together. Our goal with AI is to understand the meaning of all the content on Facebook to help us build better services. In addition to making it easier to get people the help they need and remove harmful content, this will also help us show more content that encourages connection and conversation.

And on the VR side, we are excited to get Oculus go into people's hands this year. Time Magazine named it one of the top inventions in 2017 and I can't wait for more people to use it. So 2017 was a good year in many ways, but it was also challenging and that's why our focus this year will be making sure that our services are not just fun, but also good for us. And I'm confident that we will rise to the challenge.

Thanks to all of you for being part of this journey and I am looking forward to making more progress together.

And now, you will here's Sheryl talk about our business.

### **Sheryl Sandberg**

Thanks Mark, and hi everyone. We had a strong fourth quarter and a great end to the year. Q4 ad revenue grew 48% year-over-year, mobile ad revenue was \$11.4 billion, up 57% from last year, and contributed approximately 89% of total ad revenue in Q4. The full-year 2017 mobile ad revenue grew 56% compared to 2016 and was broad-based across regions, marketer segments, and vertical.

We continue to make progress on our three priorities; helping businesses, leverage the power of mobile, developing new ad products, and making our ads more relevant and effective. Facebook and Instagram allow people and businesses connect and our especially meaningful platforms for small businesses. Globally 70 million businesses use Facebook. We surveyed small businesses in 18 countries and 57% of them are employing more people due to growth in demand since joining Facebook.

Last week, I met Adam of Kings Barbers Club who started with two employees in Birmingham, England and now has 15 salons and 70 employees. I also met Domingo from Pescaria, a restaurant in Southern Italy that uses Facebook and Instagram to connect with customers. 80% of their diners and 70% of their revenues comes from Facebook. They opened their second restaurant and now employ more than 60 people. Like Adam and Domingo, small business owners are some of the most dedicated entrepreneurs and they are the heart of every economy and create the majority of new jobs throughout the world.

As Mark said, we are taking strong action to maximize the good we do in communities. As part of this we are investing heavily in small businesses and in helping people gain digital skills. In November, we launched our community-based program which provides digital training for people in need of work and helps local businesses and non-profits get the most out of the Internet.

During my trip last week, I announced that we are expanding the program to the EU. This year, we will visit more than 30 cities in the U.S. and Europe to work side by side with SMBs, start-ups and NGOs. Over 2 million people and businesses have already used our online and offline training, and by 2020 will have trained 1 million people and businesses across Europe alone.

As people and businesses shift to mobile, Instagram continues to grow quickly. There are more than 2 million active advertisers on Instagram and we announced in November that more than 25 million businesses have profiles on Instagram up from 15 million in July. Instagram is a business as mobile visual shop and we're seeing more people seek out businesses there. About two-thirds of the visits to Instagram business profiles are from people who don't follow them and this is helping bring in new customers.

Our second priority is developing innovative ad products, each year mobile advertising reaches new milestones during the holiday shopping season. A year-ago, we saw a mobile conversion action taken on a mobile website after viewing an ad on Facebook surpassed desktop conversions for the first time. In 2017 mobile conversions continue to accelerate. Data from 17 markets shows mobile accounted for 69% of online conversions on Black Friday and 64% on Cyber Monday.

It also shows 80% of conversions on Singles' Day, a popular day for online shopping in China and increasingly other countries. Big shopping days like these are the kind of global events that Facebook and Instagram are uniquely positioned to support. During these events and throughout the year, businesses are using our innovative ad products like dynamic ads to connect and reconnect with shoppers.

For example, Holiday Inn Express recently used dynamic ads for travel with our collection formats to advertise to people who search for hotels on their website, but hadn't yet booked. They ran ads with a video that showed a personalized selection of hotels for the city and dates people have looked up. This resulted in three times higher return on ad spend than their previous campaigns.

In Q4 we also launched dynamic ads for auto, which allows dealers and manufacturers to show the right cars to the right audiences. As we expand and improve our ad products advertisers are increasingly developing mobile first ads rather than simply taking their TV creative and putting them online.

Mobile first video was 50% of our video ad revenue this quarter up from 41% last quarter. We're seeing the short form videos work well and Instagram Stories were people can watch a full-screen vertical video and

swipe up to quickly learn about a product or brand. 60% of these ads are viewed with sound on.

Recently open table used Instagram Stories to advertise their reservation service to U.S. adults, who are frequent diners or are interested in dining. They combined food and restaurants footage of the book now button. Their ads reached 1.5 million people and achieved 33% lower costs per reservations and their other campaigns. We're making it easier for any advertiser to try Stories ads as part of their other campaigns on our platform.

Our third priority is making our ads more relevant and effective. Targeting makes advertising better more relevant to people and more effective for businesses. This is especially important for small businesses and they had limited budgets and need to make every dollar counts. Facebook give small businesses the same powerful tools that were previously only available to large advertisers. So they can reach the right people at the right time.

For example, we're continuing to invest in value optimization, which helps advertisers show their ads to people who are likely to spend more with them. We've been gradually rolling this out to advertisers using web conversion dynamic ads and mobile app, install app. Their early results are promising over 2500 businesses have tried value optimization since June and many are putting more of their budgets toward it.

We take our responsibility to prevent abuse of our ad system very seriously. And we're investing heavily in both people in technology to protect the integrity of our platform. In addition to rolling out the ad transparency tool in Canada that Mark mentioned, we've disabled the option that less advertisers exclude people and specific multicultural affinity segments until we can develop better safeguards against discrimination.

We're also focused on improving ad quality and delivering a better experience for people who interact with marketers on our platform. This holiday, we took additional steps to penalize e-commerce advertisers, who created misleading or negative ads. In 2018, we will continue to focus on our same three priorities and do more to ensure the quality transparency and authenticity of ads in our platform.

As part of our effort to be more transparent, last quarter we published our advertising principles, which have long guided our approach across all of our platforms. These principles are commitment to the people who use our services. They are we build for people first. We don't sell your data. You can control the ads you see. Advertising should be transparent. Advertising should be safe and civil. It should not divide or discriminate. Advertising



should empower businesses big and small and we're always improving our advertising.

As Mark said, 2017 was a challenging and important year for Facebook, a year where we committed to increasing our investment in the safety and security of our community, it was also a strong year for our business where our investments in helping our clients grow payoff. We will continue to make all of these investments in 2018 and in the coming years. I'm thankful to our partners around the world and to our employees who work so hard to make us better every day. Thanks.

And now here's Dave.

### **David Wehner**

Thanks Sheryl, and good afternoon, everyone. Q4 was a strong quarter for Facebook and a great end to the year. Full-year 2017 total revenue grew 47% over \$40 billion and we generated over \$17 billion of free cash flow. Let's begin with our community metrics. Overall our global community is strong and growing. Daily active users on Facebook in Q4 reached 1.4 billion, up 14% compared to last year, led by growth in markets like India, Indonesia and Brazil. This number represents approximately 66% of our 2.13 billion monthly active users in Q4.

MAUs were up \$269 million or 14% compared to last year. As Mark mentioned certain product quality changes impacted our DAU growth. In the U.S. and Canada, these changes contributed to a DAU decline of 700,000 compared to Q3. We don't see this is an ongoing trend, but we do anticipate that DAU in this region may fluctuate given the relatively high penetration level. We continue to see healthy growth across the Facebook family of apps including Instagram, WhatsApp and Messenger.

Turning now to the financials, all comparisons are on a year-over-year basis unless otherwise noted. Q4 total revenue was \$13 billion, up 44% or 47% on a constant currency basis. Foreign exchange tailwinds contributed \$329 million of revenue in Q4. Q4 total ad revenue was \$12.8 billion, up 48% or 44% on a constant currency basis. Mobile ad revenue was \$11.4 billion, up 57%.

In Q4 the average price per ad increased 43% and the number of ad impressions served increased 4%, driven primarily by feed ads on Facebook and Instagram. Payments and other fees revenues was \$139 million, up 7%. Total expenses in Q4 were \$5.6 billion up 32%. Headcount remains a primary driver of total expenses. In Q4 we added approximately 1,900 people and ended the year with over 25,000 employees, up 47% compared to last year. In 2017 we made significant investments in R&D and security.

On the R&D side, we added more people in 2017 than we did in 2016 and 2015 combined.

On the security side, as Mark mentioned, we have accelerated our efforts and at the end of the year had around 14,000 employees and contractors working across community operations, online operations and integrity efforts. We also continue to invest aggressively in key areas such as content and our long-term innovation efforts.

Q4 stock-based compensation expenses were \$814 million, which was down from the \$831 million in Q4 of last year, due to a decline in deal related stock-based compensation expenses. As a reminder, we acquired Oculus and WhatsApp in 2014 and we expect the deal related SBC expenses to be substantially recognized by the end of 2018. Q4 operating income was \$7.4 billion representing a 57% operating margin.

Our effective tax rate was 43%. In Q4, we recorded net approximately \$2.3 billion in one-time charges as a result of the 2017 Tax Cut & Jobs Act. That was largely driven by the mandatory transition tax based on the accumulated earnings from our foreign subsidiaries.

Net income was \$4.3 billion or \$1.44 per share. Again the one-time charges related to the tax on accumulated earnings reduced EPS by approximately \$0.77. Full-year 2017 capital expenditures were approximately \$6.7 billion, driven by investments and servers, data center, offices facilities and network infrastructure.

In 2017, we generated over \$17 billion of free cash flow and ended the year with nearly \$42 billion in cash and investments. In 2017, we brought back approximately \$2 billion of our Class A common stock and had approximately \$4 billion remaining in our current authorization as of December 31. We remain committed to repurchases of our stock to help manage dilution.

Turning now to the revenue outlook. We believe we have good opportunities to grow the business across both Facebook and Instagram in 2018. We continue to improve the effectiveness of our ads which helps drive ROI for advertisers and demand for our ad products.

On the supply side, we expect we will be able to continue to grow ad impressions at a modest space. In 2018, we expect constant currency ad revenue growth rates to decelerate consistent with the trends that we have seen over the past year. I would also note that in the first half of 2018, we will likely benefit from favorable exchange rate tailwinds due to the recent depreciation of the dollar.

Moving on to expenses. We continue to expect full-year 2018 total expenses will grow approximately 45% to 60% compared to full-year 2017.

Turning now to CapEx. We expect that our full-year 2018 capital expenditures will be in the range of \$14 billion to \$15 billion driven by increased investment in data centers, servers, office facilities and network infrastructure. We currently anticipate that our full-year 2018 tax rate will be in the mid-teens. In summary, 2017 was another good year for Facebook. We continue to grow our global community and deliver great results for our advertisers.

Importantly, we accelerated our investments to make our products better and the community stronger as we push forward on our mission of giving people the power to build community and bring the world closer together.

With that, Mike let's open up the call for questions.

## **Question-and-Answer Session**

### **Operator**

We will now open the lines for a question-and-answer session. [Operator Instructions] Your first question comes from the line of Brian Nowak with Morgan Stanley.

### **Brian Nowak**

Thanks for taking my questions. I have two. The first one, the quality changes that you mentioned that led to an impact on daily active users in North America. I guess any further detail on what those quality changes were and what makes you feel comfortable this isn't likely to continue? I think you may need to make further changes and cleanup throughout the course of the year?

And then the second one, Mark, I thought your commentary on Stories engagement was really helpful. I'd be curious to hear about early learnings on monetization of the Stories format and any challenges you made to overcome to drive monetization through that consumption? Thanks.

### **David Wehner**

On the quality changes on the impact on DAU in the U.S. and Canada, really no further I think elaboration on that. I would just say that we don't anticipate that that will be a continuing trend, but given the high penetration rates, we do think they'll be some fluctuation there. There's a lot of different

effects that come from the different quality changes and focus on meaningful social interactions, but that's our expectation at this point.

## **Sheryl Sandberg**

On story monetization, ads in Stories on Instagram is a small, but quickly growing part of our revenue. There are 300 million daily actives on Instagram alone, and the format is pretty exciting from a sales point of view because it has a lot of potential. Its full screen is authentic, it's very engaging. So the opportunity in the future for us to combine the power of this new format with the targeting and measurement we offer, we think it's going to be really powerful for both our business and the business of our clients. It's early days, but I'm pretty optimistic about this.

## **Operator**

Your next question comes from the line of Doug Anmuth with JPMorgan.

## **Douglas Anmuth**

Thanks for taking the question. First, Mark you made it pretty clear that driving meaningful social interactions is the Company's top priority this year, but can you talk a little bit about how the changes you're making impact advertising and maybe you can talk about how you're thinking about any changes around ad load or just overall impression volume? And then how the ads work in an environment of more friends and family content in an environment where you don't see as many business posts?

And then secondly, can you talk about GDPR as well. I don't think you mentioned it, but just curious, I mean you put the blog post out the other day, but if you could talk about how you're preparing here, so that's a rollout over the next few months and whether you think that presents any risk to either engagement or monetization? Thanks.

## **David Wehner**

Hey Doug, it's Dave. I'll start off on the impact on the business. The biggest focus – the biggest impact of the focus on meaningful interactions as Mark mentioned will be in areas like passive video, where from a business perspective, we monetize less on a time spent basis. So if you think about it in terms of things like post views in News Feed, which drives impression growth that we think this will have less of an impact, and so that's sort of built in to what I had said about the business commentary when I commented on 2018 revenue outlook. We still believe we have an opportunity to grow impressions at a modest space year-over-year across the platform.

## **Sheryl Sandberg**

When I think about the MSI changes, obviously any change that's beneficial for our community is good for the long run health of our business, because as Mark said, we care not just about time spent on Facebook, but time well spent. But even in the shorter-term all time spent on Facebook is not equal, because when people spend time viewing more posts because they're interacting with family and friends and they're not involved in longer post.

We have actually more monetization opportunities. We're not doing this to be positive or negative for revenue. We're doing this because is the right thing for our community. But the impact that has on monetization is certainly not clearly negative. When you think about GDPR, the Facebook family of apps already applies the core principles in GDPR frame, which are transparency and control and we are building on this to make we're ready to fully comply by May.

We're going to continue to give people are personalized experience to be clear about how are using the data and give choices and we realize that this means that some users might opt out of our ads targeting tool. We also know that there may be a DAU impact for implications on European usage. But from the targeting, we're not forecasting a big impact here. There's some risk and more watching closely. Over the long run, we feel confident that we're very well placed to navigate the transition.

## **Operator**

Your next question comes from the line of Heather Bellini with Goldman Sachs.

## **Heather Bellini**

Great. Thank you. I had two questions. One, I was just wondering what the advertiser response is then to the lower engagement and also just the kind of I guess cleaning up of the News Feed if you will. What's kind of there view on this and also can you share with us any metrics on Watch and I know it's really early, but anything that interesting from an engagement perspective here and kind of how do you think this could evolve? Thank you.

## **Sheryl Sandberg**

On the DAU impact any Advertiser response our business is strong. We have over 184 million people using Facebook everyday in the U.S., which is considerably more than the Super Bowl every day on mobile alone. We also have – we think the best stability to target and make advertising relevant for businesses and people who see ads. We're continuing to build the products

that allow businesses to get a higher return for the dollars they spend and allow people to see more relevant information in ads on our platform.

So we're pleased with the growth and we believe that that delivering the strong quarter we have shows that. On Watch, it's just early days. We have a dedicated place for people to watch and comment, where heavily focused on the social aspects of video viewing, but it's too early to report any really findings.

## **Operator**

Your next question comes from the line of Eric Sheridan with UBS Securities LLC

## **Eric Sheridan**

Thanks for taking the question. Maybe following up on the team around engagement and the changes on product. First, how would be defining success? What will you be watching for in terms of either the time spent on the platform or the user growth on the platform or relative engagement to say that you've got the mix right and that people are seeing the right of content and have a healthy experience with Facebook over the next couple of years? That will be number one.

And number two, Dave with respect to the OpEx and CapEx, given the incentive of the company to get a lot of things right on the security side and with repositioning products. Should we expect there to be a different cadence this year in terms of the investments the company might maybe more first half versus second half. Just one note there was any color there? Thank you so much.

## **Mark Zuckerberg**

I can take the first point about meaningful social interaction. So the product directive that I've given to all of our teams is to shift from focusing on showing the most meaningful content to people to instead to now encouraging the most meaningful social interaction. So that will first take hold as the series of News Feed changes, but over time there are going to be new products that we build new interfaces that the team is designed with the goal of encouraging interactions between people.

So the thing that we're going to be measuring is basically the number of interactions that people have on the platform and off because of what they're seeing that they report to us is as meaningful. One interesting thing that I think is worth being clear about in terms of how we develop News

Feed. I think that there's this myth that we design News Feed in order to just optimize for time or for likes or comments or some signals like that.

The reality is the way we've done this for years is we've had a panel, a survey of thousands of people who basically we asked what the most meaningful content is that they had seen on the platform or that they've seen off the platform and we design our systems in order to be able to get to that ground truth of what people – real people are telling us is that high quality experience.

So now we're going to shift that that methodology a little bit to instead of just being focused on the content, now to be more focused on trying to measure and have people tell us what is creating the most meaningful interaction in their lives. We're not just on Facebook. It could be a message that you have on Messenger or Whatsapp. But it could also be that you see something on Facebook and have a conversation about that in the world with someone who's meaningful to you and the next to me that we need to understand that.

But that's basically what where we're going to be moving all of these systems towards over the next period of time. And its not just can be one News Feed change that happens overnight. It will be a series of rollouts and then a number of product changes that go to the interface of the products and things that we launch within that as well.

### **David Wehner**

And then Eric, you had a question about, how we might expect expense growth to progress through the year? There is no specific one item that's going to drive it. So we would expect expense growth to ramp throughout the year, largely due to the factors that we've talked about on prior calls in terms of what's driving the overall acceleration. There's the continued investment on the security front. We talked about that in both Mark's comments and my comments and we're continuing to ramp that investment.

We are continuing to invest to support the video strategy on Watch. So we would expect that content investment to continue and ramp. And then finally we're continuing to invest in the long-term initiatives in areas like AR, VR, AI and connectivity. So across the board, we would expect expense growth ramp throughout the year.

### **Operator**

Your next question comes from the line of Peter Stabler with Wells Fargo Securities.

**Peter Stabler**

Thank you. Two if I may, one for Dave and one for Sheryl. First of all for Sheryl, wondering if you could update us on the search opportunity given the rapid growth of product advertising on the platform. Is there an opportunity for Facebook to transition from more of a demand generation platform to demand fulfillment? And then for Dave, can you give us a sense of the timing of the changes to the News Feed? Is this of fully completed rollout were there different cohorts that saw it first? Was there any regional phasing or anything like that? Thank you.

**David Wehner**

Yes, Peter. I'll take the second part first. We began to make changes around a number of different quality initiatives in the fourth quarter, so that affected metrics that we've talked about including both the time spent and the DAU. But we continue to make changes to improve and to optimize around driving meaningful social interactions as Mark talked about. That's going to be an ongoing journey throughout the year. So there's no – I don't think we ever are going to declare that we are done making changes. So I'd expect we would continue to make changes and evolve.

**Sheryl Sandberg**

On the search opportunity, there's a growing number of searches on Facebook, but we're still a ways off from monetization. It's worth noting though that because of our ads targeting our ability to reach people multiple times. We do believe that some of our ad success is taking people from demand generation through demand fulfillment.

So we have multiple clients who will show an ad, a video ad to everyone in the U.S. for example or to a big cohort of people and then they'll follow up with an ad that target on either Instagram or Facebook to people who engage with that first that then they can follow up with the next team and we are seeing as businesses are increasingly measuring your ad spend in terms of their real ROI for sales that even within our own platforms. We can move people down that marketing funnel from demand generation to demand fulfillment.

**Operator**

Your next question comes from the line of Justin Post with Bank of America Merrill Lynch.

**Justin Post**



Great, thank you. Dave, maybe you can talk a little bit about the sustainability of the pricing growth that you're seeing with advertising. Obviously your outlook for next year suggest decelerates modestly, but it's certainly a very high level and talk a little bit about that. And then maybe Mark or Dave, just talk about how the Watch tab is evolving? Are you seeing a lot of usage there? And how do you think about content in the Watch tab versions the News Feed? Thank you.

### **David Wehner**

Yes. Sure, Justin on pricing growth, I think there we feel like we're making good progress in our goal of driving better outcomes in ROI for our advertisers through things like better targeting, better ad units, driving better conversion, and we think we're making good progress there, and the willingness of advertisers continue to grow budgets with us I think highlights our progress there. You remember they are optimizing at the end of the day for business results for a given dollar spent not the impression price that we're kind of nominally reporting here.

So you can think of all of this work and Sheryl talked about the value optimization efforts as part of that as being an effort to improve the yield of the impressions that we have to drive downstream business results for advertising partners. And if we can drive those affectively that will translate into higher effective prices for our business. And as I mentioned, I think we believe we still have a lot of work to do to continue to improve that. So we think there's opportunities here.

### **Mark Zuckerberg**

And for Watch, it's early, there are some promising signs, but in terms of how we think about this overall compared to News Feed. I would say it's really important to internalize that the News Feed video ecosystem and the Watch video ecosystem are almost completely separate things, right. So the Watch behaviors that we're building is one where people come intentionally to watch specific videos and to interact with the community around that.

That's in contrast to what we worry is too passive consumption of an experience in News Feed today where people just happen to often see a video and maybe they'll watch it for a few minutes, but may not interactive around as much in News Feed. So we're still very optimistic long-term that Watch will be used for video that helps to bring people closer together and that will correlate with all the things that our community is telling us they want and that correlate with the measures of wellbeing that we think that social products can generate by helping people build relationships in terms

of all the long-term measures of wellbeing that we care about like long-term happiness and health et cetera.

## **Operator**

Your next question comes from the line of Mark Mahaney with RBC Capital Markets.

## **Mark Mahaney**

Thanks. Two questions please. European advertising revenue growth or your ad revenue growth in Europe accelerated, is that just currency or anything else you would call out there? And then you talked about progress in moving away from kind of demand or creation towards demand fulfillment or including demand fulfillment. And I was wondering if you could give any more examples of that?

And Sheryl, two years ago or so you mentioned Booking.com being on the platform. I still think those OTAs, based on our work, are still doing like 10x as much spend on Google. So there's a real opportunity versus Facebook. Are there other examples or any other evidence you can show or talk about that that companies are really finding the ability to do demand fulfillment on Facebook and what's caused that to change? Thanks a lot.

## **David Wehner**

Let me just quickly hit on the constant currency question I think you had at the beginning Mark. The acceleration we saw from Q3 to Q4 was currency for Europe, but Europe continues to grow at a very healthy pace on a constant currency basis, so we're very pleased with the results both in constant currency terms and nominal terms. And then Sheryl.

## **Sheryl Sandberg**

So to take the first question, the EU, the strength in Europe was driven by SMBs. We grew across the board with large companies too, but SMBs were really important for this. There are 18 million small businesses on Facebook in Europe, and I had a chance to meet a lot of them on my trip. But to mention just one which shows the point, a couple named Linda and Marius started a company called iELM. They're a kids clothing retailer. They started in Sweden on Facebook. She was selling clothes in her living room and selling them. Facebook is driving about half their sales. They then opened a factory in Romania and moved back to Romania, where they're now employing 100 people and they're shipping across Sweden, Romania, Germany, and Austria.

There's still a small business at 100 people, but they are a growing business and showing the power of how our work with SMBs is growing jobs. You're asking also for an example of a demand generation going all the way down to demand fulfillment. Here's another one from Europe. Gymshark is a fitness clothing brand based in the UK. They ran Facebook video ads and Instagram Story ads for their Black Friday Campaign and then they target with a look a like people who had previously purchased and custom audiences that people who started, but then complete the purchase. And they saw 9.3 times return of investment over the two week holiday period.

What happens on our platform is often that people will start out during demand generation and then use the repeat opportunity to show people ads, moving down the funnel to demand fulfillment. If you use our targeting tools well, you can actually start out with demand fulfillment. So some of these examples I've shared on this call from holiday end to Gymshark are about people using the targeting tools to find the people who are interested in the products and then you can get closer and down the funnel to demand fulfillment.

### **Operator**

Your next question comes from the line of Ross Sandler with Barclays.

### **Ross Sandler**

Hey, guys, just two questions Mark, first on the topic of passive versus active consumption. Can you talk about what percent of the DAUs actively contribute today versus just moving back passive consumption? And how has that ratio maybe changed versus five years or 10 years ago based on some of the product changes that you had in News Feed?

And then Dave just follow-up on pricing, so with the bunch of noise given the growth rates of desktop versus mobile, can you just talk about what pricing growth looks like in mobile like for like geography basis? Is that 20%, 30%, any color there would be helpful? Thank you.

### **David Wehner**

Yes. Ross, I guess I'll take both. Yes, we don't break out the type of metric that you're talking about on the passive versus active consumption. So we don't have anything specifically to share there. In terms of breaking out pricing on a mobile basis. I mean I think overall that the trends reflect a generally what's happening on mobile, but there is still an overlay of a shift from desktop. But overall, we are seeing prices increase on mobile in region, so I think that's consistent with the reported trend.

**Operator**

Your next question comes from the line of Brent Thill with Jefferies LLC.

**Brent Thill**

Thank you. On Instagram I'm just curious if you give a little more color on the progress you're seeing, any metrics to help fill in what's happening there?

**David Wehner**

We continue to be pleased with the growth of Instagram both on a user basis and on a revenue basis. It continues to make an increasing contribution to the business. So we're very pleased with the Instagram result, nothing specifically to highlight from a metrics point of view.

**Sheryl Sandberg**

On the business side, I think we have both pleased with the results. We see a very big opportunity in front of us. We have 6 million advertisers on Facebook, which means we have a lot of opportunity on Instagram, where we only have 2 million advertisers to grow their engagement with us and their spend.

**Operator**

Your next question comes from the line of Michael Nathanson with MoffettNathanson.

**Michael Nathanson**

Thanks. I have one for Mark on news trustworthiness and then group on sports. So Mark, I realize you're taking great pains not to play the role of the news editor on your platform. You're asking users about trustworthiness, but I wonder does that pick up biases in our own stores of what we believe to be trustworthy and how do you get past that?

And then would it make sense just simply you play the role of pipelining a new News Feed, maybe its own tab with news that we all believe – we believe to be trustworthy. So at some point you take a more active role in identifying the news that your platform believes to be real news and maybe create a new tab that ways. Is that ever something in your thinking?

**Mark Zuckerberg**

The value that we care about here is helping to build common ground. Right and helping to do our part to fight off news and polarization. So what we're doing. With this specific change which is one of a number of News Feed changes that are geared at improving the quality and trustworthiness of news on Facebook.

What we basically ask people we don't want to assess by ourselves which sources are trustworthy. I think that's not a situation that our position that we're comfortable with ourselves. And I don't think personally that that's something that our community or our society wants us to do. So for all of the feedbacks that we get that we should take more of a view on that, I actually – I don't believe that that is the right thing broadly.

What we try to do is get our community to tell us what matters to them, because we believe that we can get an accurate signal from the community then – people are smart. They know what they want and what's good and they can tell us that, if we can ask them in a simple enough way and get aggregate data.

So what we're doing here is we basically are just asking people, if they're familiar with news sources and whether they trust them. And the effect of that is that it basically normalizes for – there are going to be people who read a given news source, who will probably trust it because they read it.

But the question is that the people who don't read it, who are still familiar with it, do they think it's trustworthy, and that's the example that I gave before the Wall Street Journal or New York Times. A lot of people read those, a lot of people don't, but the people who don't still think that they're high quality journalism in general. And that's not true for a lot of the other stuff that's out there.

And we've found that that's the reliable signal of content that helps to build common ground that is unlikely to be polarizing, that is unlikely to be false news, and what we're doing is helping to show that a little bit more.

Again, we're not going to tell you that you can't share other stuff, right. You can share it on the platform. People can go to your profile. But in News Feed, we're going to just show that a little bit more to do what we view as our role is helping to build common ground, encounter some of these other forces in the world.

**Michael Nathanson**

Okay.

**Sheryl Sandberg**

On this sports answer, sports is one of the ways that people get together on Facebook and build community. We're excited to bring the UEFA Champions League Soccer and College Basketball to Facebook, and we're going to continue to experiment with developing many different forms of content for Facebook.

### **Operator**

Your next question is from the line of John Blackledge with Cowen.

### **John Blackledge**

Great, thanks. Two questions, on marketplace with the expansion to 30 countries, just wondering how the business model evolves over time, does it kind of mirror Amazon's third-party business or eBay's marketplace business? And then just on ad units, on the mid-roll video ad units. Just wondering I know it's early, just any color on the ad demand and perhaps how you think about the impact to this ad unit for the next couple of years? Thank you.

### **Sheryl Sandberg**

On marketplace, we're just going to continue to iterate on the ad test. We're pretty encouraged by what we've seen even though it's pretty early days. What we're excited about is that our business is helping people connect with things they want to buy. It's also important to note that commerce is a really important vertical in our ad business. So it's not just the commerce is being driven in ads in marketplace.

But in a much bigger way, commerce discovering product all the way, through to sales is a big part of what's driving our ads business. On Ad Breaks for mid-roll video, early days pretty good result, more than 70% of Ad Break up to 15 seconds in length on Facebook and Audience Network are being viewed to completion. Most are being viewed with the sound on. But again it's very early for this.

### **Operator**

Your next question is from the line of Anthony DiClemente with Evercore ISI.

### **Anthony DiClemente**

Thanks for taking my questions. Sheryl, just hoping you could help us think about how marketing budgets grow as retail moves online. So investors we speak to ask the question about the addressable market for Facebook. Is the addressable market running out of opportunity as the platform gets larger?

So do you believe the overall ad market or the TAM is possibly experiencing structural expansion, due to a shift in e-commerce overall?

And then Mark, I wanted to ask about AI. Can you just talk about the broader applications of the technologies that you are investing into improve the user experience and safety on the platform. So I understand you're using AI to improve the quality of the experience and engagement, but should we be thinking about these investments as also enabling new features and products over time, whether it would be shipping hardware or custom chips or potentially AI as a service externally? Thanks.

### **David Wehner**

Anthony, on the on the marketing budgets, we continue to think we've got great opportunities to grow in the large global advertising market. When you get sort of down to the micro level, you talked about e-commerce. E-commerce is and remains and was one of our strongest verticals in Q4, and we think we're doing an excellent job of building the right products for e-commerce retailers.

And Sheryl talked about value optimization and that sort of work that we're doing, and so I think we've got continued opportunities with e-commerce going forward. So I think we're very well positioned in the e-commerce space. On AI?

### **Mark Zuckerberg**

Yes. I can talk about AI. So machine learning is – the improvement there are by far the largest technological trends that we're seeing in the industry and across the business. And we really see it in three ways, right. The first and most tactical or just the optimization to everything that you see, right, from ranking in News Feeds, your ranking of ads or search, or improving our security systems, and that's driving a lot of the business and the quality improvement that we're seeing and that's really important.

The second category, I would call qualitative changes and how we do business. So for example, for News Feed, historically all the content that's been a News Feed has been content that you're connected to, right. You become friends with someone or you follow a page and then their content can show up a News Feed, but long-term or not even long-term, right.

Over the next several years as we develop an understanding of all of the content on Facebook that won't be a constraint anymore. At some point, we're going to be able to just understand the meaning of all the content that hosted that you could potentially see and use that as candidates to potentially improve your experience and make it that you could see way

more content that you might be able to today to – and of course, we'll do that to help encourage more social interaction.

The way that this is improving the work that we're doing around security and integrity is also very fundamental. Today, that whole model is that people can post what they want and then a person can flag it, and then our systems will look at it. But increasingly as we move into the future, we're going to be able to proactively take down some negative content. I gave the example of the terrorism-related content and some things around suicidal post where if someone posts something that they're thinking about suicide. Now today, we don't have to wait for someone to report it a lot of the time.

In the last few months, there have already been more than 100 instances where we've been able to reach out and get in touch with first responders that they can give you people the help that they need, and that's a big structural change in the way that we do business in terms of protecting the security and integrity of our community. The third major category is going to be completely new products and platforms. So there we talked about all the things that we're building around VR and AR and the ability to be present with anyone, anywhere.

And certainly AI is going to be a big part of that both on the vision side and the voice side. And there are going to need to be big advances there, but that's really exciting. But I think in each of those three categories, the optimization, the upgrading how we do business, and really changing how that works in our products today, and then the new products. I would say that improvements in machine learning are the most important technological trends in the industry now by far.

## **Sheryl Sandberg**

Operator, we have time for one last question.

## **Operator**

Your last question comes from the line of Mark May with Citi.

## **Mark May**

Thanks a lot. I just wanted to ask a follow-up question regarding Mark's comments that user engagement had declined by I think 50 million minutes in – daily hours in the quarter. I guess the question is how confident are you that that impact was due to News Feed changes that you made proactively versus some other factor outside your control, and if you are still fairly early in the process of making these quality improvements to the News Feed, do you expect for engagement declines to continue going forward?



And just for Dave, I know you choose your words carefully, just want to clarify, you mentioned this year you expect constant currency ad revenue growth to decelerate consistent with trends that we've seen in the last year. I think your constant currency growth rate in 2017 declined by about 12 percentage points. Is that kind of what you're trying to lead us towards? Thanks.

**David Wehner**

I can take the second question first, Mark. I think what I am trying to say is that we do expect constant currency revenue growth to continue to decelerate consistent with steady deceleration that we've seen over the past year, so we do expect that trend to continue. I'm not putting specific percentages around it.

**Mark Zuckerberg**

So in Q4, we made a number of quality changes that were largely around video. We are going to continue to make quality changes now going forward around meaningful social interaction. And I do think that that is likely going to continue this trend of decreasing passive consumption, but if we do our jobs well, it should increase the number of meaningful interactions that people have. And we think that that's going to be positive, right. So we think it'll help make the community stronger over the long-term. I mean we think it'll be good for the business over the long-term, but this is what people are telling us is what they want on the product.

It's the unique value that people expect from Facebook. You can go to a lot of places to consume content, but there aren't a lot of services where you can strengthen your relationships, that's what people want, so that's the right thing for us to focus on, and it also lines up with all the well being research that we've done which – and as you know, there have been a lot of debate over the last year about the utility of social media on the Internet, and we take this very seriously, right. It's our responsibility, too, to make sure that we understand everything that's going on on our platform.

And one of the big takeaways from that is that time when people are engaging and building relationships, is good time and that correlates with all the aspect of long-term well being that you'd expect like happiness, and health, and feeling more connected and feeling less alone, and in all of the things that qualitatively matter in our lives. And we think that we can help drive that and improve people's lives by doing that, so we're absolutely going to go do that.

End of Q&A

**Sheryl Sandberg**

Great. Thank you for joining us today. We appreciate your time and we look forward to speaking with you again.