Operator

Good afternoon. [Operator instructions.] Ms. Deborah Crawford, Facebook's director of investor relations, you may begin.

Deborah Crawford

Thank you. Good afternoon, and welcome to Facebook's fourth quarter earnings conference call. Joining me today to talk about our results are Mark Zuckerberg, CEO; Sheryl Sandberg, COO; and David Ebersman, CFO.

Before we get started, I would like to take this opportunity to remind you that our remarks today will include forward-looking statements, and 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, our annual report on Form 10-K, and our most recent 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 will 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.

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

Mark Zuckerberg

Thanks, Deborah, and thanks, everyone, for joining today. This was a great quarter and a great way to end the year. We saw strong growth in engagement around the world, and we're very pleased with the growth of our ad business, especially on mobile.

Overall, 2013 was an important year for us. If 2012 was the year we turned our core product into a mobile product, then 2013 was the year when we turned our business into a mobile business. I expect 2014 will be the year when we begin to deliver new and engaging types of mobile experiences.

As of the end of the year, more than 1.23 billion people now use Facebook each month. Last quarter was our first quarter where more than 50% of our ad revenue came from mobile. Looking back at the year, we launched an important products and initiatives: internet.org, graph search, Instagram

video, and Messenger 3.0. We also made a lot of improvements to the performance and reliability of all our mobile apps.

One important trend from the last year is the continued growth in size and engagement of our community. In 2013, we added 172 million monthly actives and 139 million daily actives. That means that our daily engagement continues to increase. In the latest quarter, more than 60% of our monthly actives visited Facebook daily.

Given the size of our community, we're very excited about this pace of growth. We're also seeing people engaging more. On the average day in December, we saw more than 6 billion likes. That's up 59% from 3.8 billion likes a year ago.

These trends show that our strategy of improving the quality of our core experiences over the last year has paid off, and we're now in a good position to focus on our longer term goals of connecting everyone, understanding the world, and building the knowledge economy.

Connecting everyone is about bringing the internet to everyone and giving them the tools to stay connected with the people and things that matter to them. Today, more than 750 million people use Facebook every day. While that makes up by far the largest social network in the world, we're still a small part of the world's population.

Only one-third of the world's population has access to the internet today, and for even many of those, the return on experience remains pretty weak. Helping more people get connected is important the developing the global knowledge economy. Once people are connected, they can access tools like basic financial services, health information, and education tools to help them take care of their families and join the worldwide economy.

That's why last summer we launched internet.org, a partnership with industry leaders to make affordable internet access available to everyone in the world. In 2014, we're going to focus on achieving internet.org's mission by deepening the relationships with mobile operators around the world and working to develop new models for internet access.

Our existing partnerships with operators are something we've already invested a lot in over the years, and this is an area where we're really excited to build on going forward. Connecting everyone ultimately means giving people the power to share different kinds of content with different groups of people.

This is something we've focused on by building separate mobile apps beyond the main Facebook app. Messenger and Instagram are examples of this. We launched a new version of Messenger to make the app even faster for mobile to mobile communications. Messenger was among the topmost downloaded apps on iOS and Android in December, and we've seen meaningful growth in engagement since launching.

The number of people using Messenger grew more than 70% in the past three months, and we've seen a large increase in the number of messages sent. We have a lot more coming to messenger in the first half of this year, and I'm excited to build on these early results.

Instagram also had a busy quarter, bringing Instagram to Windows Phone, launching our first ads, and launching Instagram Direct, the new way to send private photo and video messages.

We're pleased with the early reaction to all these products. With ads, the team has taken an especially careful approach, working closely with a small number of brands that are already important members of the Instagram community to create a great early experience.

I'm also excited to report that there are now more than 500 million people using Facebook Groups every month. Groups is one of our core products, and it provides a private space for sharing with small groups like your family, close friends, or a sports team, or for larger communities, like schools or even companies.

One theme that should be clear from our work on products like Messenger, Groups, and Instagram is that our vision for Facebook is to create a set of products that help you share any kind of content you want within the audience you want.

We're not just focused on improving the experience of sharing with all of your friends at once, although that's growing quickly too. A lot of the new growth we see is coming from giving people the tools to share with different sized groups of people.

Now, moving on to our business, last quarter I talked about our efforts to grow our business through improving the quality of our ads rather than just increasing the quantity. Our goal is to reach a point where the ads are as relevant and timely as the content your friends share with you.

To do this, we've put a lot of effort into measuring people's sentiment around our ads and seeing how people engage with them. We do some of the broadest surveys in the world. We survey more than 35,000 people every day to see how we're doing, and we use the results to drive our product development.

Our approach is working. In the second half of 2013, we saw an improvement in sentiment about ads on mobile, even as volume grew during that period. We also saw sentiment on desktop remain stable. Interestingly, even as the volume of newsfeed ads has grown, clickthrough rates have also remained stable.

We're very pleased with these results, and they suggest our strategy of improving quality is working. Our plan is to continue focusing on improving quality, since we think this is the best way for us to improve the experience for people on Facebook, returns for advertisers, and our own revenue, as well as achieving our long term goal of providing ads that are as relevant as organic content.

So that's my update on where we're focusing our efforts in the context of our longer-term goals. It's been a strong quarter and a great year for Facebook. Next week, Facebook turns 10 years old. It's been an amazing journey so far, for me personally and for all of us at the company.

But what's ahead of us is even more exciting. Many of the successes of the past 10 years have simply been steps on the path to achieving our long term vision of connecting everyone and improving the world through sharing. Over the coming months and years, you'll see us continue focusing on many of the same themes, but now with greater scale, ambition, and resources.

Finally, I just want to thank everyone who works at Facebook for a great year in 2013 and over the past 10 years. What we've achieved together has been a result of all your hard work, and I'm grateful that so many talented people are a part of our team. Thank you, and now here's Sheryl.

Sheryl Sandberg

Thanks, Mark, and hi, everyone. I am really excited to report earnings this quarter, and proud of the teams at Facebook who delivered these results.

We ended 2013 with a terrific quarter, continuing the strong momentum we saw throughout the year. Our total revenue grew 63% year over year, led by 76% growth in advertising revenue. Approximately 53% of our ad revenue came from mobile.

This is not only the first time we crossed the 50% threshold in mobile, but it's also our first billion dollar mobile quarter. In fact, our Q4 mobile ad revenue of \$1.25 billion was nearly as large as our total ad revenue in Q4 of last year.

This growth continues to be very broad-based. The combination Mark spoke about of our growth in users and engagement and the effectiveness of our

ads in newsfeed work together to provide marketers with a powerful way to reach people. This impact is evident in our results. This quarter, we saw healthy increases in every region around the world and positive momentum in all four marketer segments.

There are three key drivers propelling our business. First and foremost is strong mobile engagement. Every day, more people around the world are spending more time on their mobile devices, and marketers are starting to shift their budgets to reach them.

This was especially clear during the holiday season, where not surprisingly, Black Friday was our single biggest mobile ad revenue day in the quarter. When people are shopping in stores, they're on their phones, and when they're on their phones, they're on Facebook.

A recent study by Millward Brown Digital showed that while shopping in store, people who use Facebook do so at four times the rate of any other app or search. And for those people that use Facebook as a source before shopping, over half stated that it was a very influential source of information for them while they were shopping in the store.

The second driver of our ad business is a continued growth in the number of marketers using Facebook. Again, this growth is broad-based and diverse, across marketers, verticals, and geographies. I'll update you briefly on each of our four marketer segments.

Demand from direct response marketers was strong in the Q4 holiday shopping periods, particularly in ecommerce. These marketers focus on short term ROI, so the growth we're seeing speaks to our ability to efficiently drive sales for them.

For example, online retailer NoMoreRack used Facebook to promote its holiday deals. They hit their aggressive ROI targets and they generated \$8 million dollars in revenue on Black Friday alone.

We're also making remarkable progress with SMBs, a segment that many in the industry have long considered the Holy Grail of online advertising, and a segment that I've been particularly focused on throughout my career.

In November, we reported that more than 25 million SMBs maintain an active page on Facebook. We've made a big investment in simplifying our ad products over the last year, and that investment is working to convert these SMBs into advertisers. Of the new SMB advertisers we acquired in Q4,72% started with our most simple ad product.

For developers, mobile apps are generating very healthy revenue growth. We launched mobile app [install] ads just over a year ago, and mobile app engagement ads last quarter, based on a very simple idea, that we can help people find and use great apps.

This is working even better than we hoped. We're helping developers attract new customers and keep them engaged. We remain excited about the opportunities in this small but quickly growing category. In addition, last week we announced a small test to show Facebook ads in third-party mobile apps. We won't have meaningful results for a while, but it's an interesting area for us to explore.

And finally, we're making steady progress with our brand marketers, particularly in verticals like CPG. We're helping them connect with customers in more dynamic ways, starting a small test of our new video ad product, and measuring our impact on their sales, which is super important to driving their business.

The third driver for both the quarter and the full year has been our investment in product development. We're especially pleased with the improvements we've made to our targeting capabilities and measurement tools. Our goal, as Mark said, is to make our ads as useful as possible for consumers and to generate greater returns for marketers, eventually making all of our ads as valuable to users as our organic content.

Custom audiences is our most important product in this effort. When we launched it over a year ago, it allowed marketers to reach their current customers on Facebook. Since then, we've built more targeting capabilities while maintaining user privacy.

These include lookalike targeting that lets marketers reach people who are similar to their best customers and partner categories which use third-party data to improve our targeting. Now marketers can reach exactly the people they're looking for, such as people who buy fashion apparel or are in the market for a new car.

We've more than doubled the number of partner categories in the U.S., and now offer more than 1,000. And we believe there's still significant opportunity ahead, as we continue to improve our targeting capabilities.

We're also making major investments in measurement so that we can measure the impact of our advertising on in-store sales. In December, we launched offline conversion measurement. To date, our results show that the average return on ad spend for newsfeed campaigns is 8x, a result that is really impressive when compared to other returns marketers have available.

As Mark noted, this is the beginning of a new year, and our 10th anniversary, so I want to reflect really briefly on where our advertising business and we believe the marketing industry is headed. Before mass media, all business was personal. Sales happened customer by customer at the local store or door to door. The evolution of mass media made it possible to sell at scale, but business was no longer personal.

On Facebook, marketers can do both. We're building the world's first global platform that lets marketers personalize their messages at unprecedented scale. This is marketing where you are for who you are.

This shift to personalization represents the biggest shift in marketing in generations, and it's one that we are uniquely positioned to lead. Facebook is the only place where 750 million people visit every day, increasingly on mobile, to discover what matters to them. As we continue to leverage our understanding of people to make marketing more personal, and do it at massive scale, we will dramatically improve the quality of ads and drive more personal discovery.

Facebook is making business personal again, and like Mark, I want to thank the teams that we get to work with every day at Facebook for doing a great job to make this happen. Now I'd like to turn it over to David.

David Ebersman

Thanks, Sheryl. Overall, 2013 was a great year for Facebook. We performed well against all our key financial priorities, growing revenue to \$7.9 billion, delivering operating profit and free cash flow each of over \$2.8 billion, and making investments that position the company for continued growth.

Today's results strengthen our conviction that we're in the early days of capitalizing on a significant opportunity. Let's start with some user and engagement highlights. During the year, the population of people using Facebook on a daily basis increased by 139 million to 757 million, and the population of people using Facebook each month grew by 172 million to 1.23 billion. In December, 62% of our monthly users used Facebook on an average day.

Mobile continues to drive our growth. When we began 2013, we had more daily users on desktop than mobile. By the end of this year, our daily users on mobile outnumbered desktop by around 200 million.

We're also pleased that engagement per user continued to increase in 2013, based on measures such as time spent per user and feedback per user. And none of these stats include Instagram, which doubled its user base over the past year. The network of people who use our products remains the

foundation for everything we do, and they're the most important audience we're trying to serve and delight every day.

Turning now to the financials, in Q4, total revenue was \$2.95 billion, up 63%, and ad revenue was \$2.34 billion, up 76%, for our highest year over year growth rate since mid-2011. Exchange rates had no meaningful impact. We continue to experience strong revenue growth around the world. Ad revenue in each of our four recorded geographic regions grew by more than 65% in Q4 compared to last year.

The key driver of ad revenue growth continued to be the strong performance of newsfeed ads on mobile and desktop, which helped us attract more advertiser demand. Mobile ad revenue increased from approximately \$881 million in Q3 to approximately \$1.25 billion in Q4, a healthy increase that of course benefited from seasonal effects.

In Q4, total ad impressions declined 8%, and the average effective price per ad was up 92% compared to last year. The decline in ad impressions was primarily due to the shift in usage towards mobile devices, where people are shown fewer ads compared to desktop, since there's no right hand column ads on mobile.

The significant increase in average price per ad was driven by the mix shift to more newsfeed ads that have much higher engagement and clickthrough rates, increasing the average effective price per ad impression. The price volume trends were pretty similar across our four geographies.

Total payments and other fees revenue in Q4 was \$241 million, down 6% versus last year, remembering that in Q4 last year we recognized revenue from four months of payments transactions.

On a more apples-to-apples basis, payments revenue from games, which represents the substantial majority of our payments and other fees revenue, grew approximately 8% in Q4 versus last year, despite the fact that our payments revenue from games is limited to our desktop users, a population that's declining.

Turning now to expenses, our Q4 GAAP expenses were \$1.45 billion, up 37%, and non-GAAP expenses were \$1.13 billion, up 33%. For the full year, our non-GAAP expenses were up 44%, driven largely by growth in infrastructure expense and a 37% increase in headcount over the year.

As our revenue has grown, we've worked hard to stay disciplined in terms of our expense growth, focusing on investments where we're most confident of creating value and meaningful ROI. We're pleased with the returns we achieved from many of our investments that we made in 2013, including

those to advance our ad products, improve mobile product quality, increase engagement, and drive efficiency improvements in our infrastructure.

Our Q4 GAAP operating income was \$1.13 billion, representing a 44% operating margin, and our non-GAAP operating income was \$1.46 billion, representing a 56% margin, up from 46% last year. As you know, margins are typically the strongest in the fourth quarter, given the seasonal strength in our advertising business.

Our GAAP and non-GAAP tax rates for Q4 were 54% and 46% respectively, and for the full year 2013, our GAAP and non-GAAP tax rates were 46% and 41%. The tax rates in Q4 were higher than the rates for prior quarters of the year, primarily because of intercompany payments that occurred in Q4 related to our international operations. Also, at the end of 2013, we had a tax net operating loss, or NOL, carryforward of almost \$8 billion.

In Q4, GAAP net income was \$523 million, or \$0.20 per share, and non-GAAP net income was \$780 million, or \$0.31 per share, up approximately 80% compared to last year. Capex was \$483 million in Q4, and \$1.37 billion for the full year.

Our efficiency investments, including the Open Compute project on the hardware side and proprietary work on the software side, have enabled us to significantly increase the amount of data and the number of users we can support with each server we buy, and these investments have saved us over \$1 billion over the past three years. We wouldn't be able to deliver the profit and cash flow numbers we're reporting today without the success of these efficiency investments.

Our Q4 free cash flow was \$748 million, and our full year free cash flow was \$2.8 billion, including the benefit from a \$419 million tax refund in Q2. Turning to the balance sheet, we ended the year with \$11.4 billion in cash and investments. This number includes \$1.5 billion from our secondary offering of 27 million shares in December at the time of our inclusion in the S&P 500 index.

Now I want to share a few thoughts on 2014. In terms of expenses, we're planning that our total 2014 GAAP expenses, including cost of revenue and including stock comp, will likely grow in the neighborhood of 35% to 40%, and non-GAAP expenses, including cost of revenue but excluding stock comp, will likely grow in the neighborhood of 40% to 45%.

We plan to invest with a continued emphasis on technical headcount and product development to take advantage of the opportunities we see to create new experiences and more value for our users, marketers, and developers.

On taxes, we expect our GAAP and non-GAAP tax rates in 2014 to be roughly similar to our full year tax rates in 2013, although this could vary widely depending upon acquisitions, our international revenue and expense mix, and other factors.

Our tax rate in 2014 and over the next several years will continue to reflect the fact that we're in the early years of investing in our international operations. Longer term, we expect our tax rate to be in line with peer companies who have similar operations and international revenue mixes.

We ended 2013 with 2.6 billion diluted shares outstanding, including the December stock offering, and we estimate that our diluted share count will increase roughly 2% to 2.5% by the end of 2014, although this may vary depending upon our stock price and new share issuances, for example to support M&A.

We anticipate our 2014 capex will increase to be in the range of \$2 billion to \$2.5 billion. The significant year over year growth will be driven by an expansion of our Menlo Park headquarters, infrastructure-related expenses such as the buildout of our Iowa data center, and by our investment plans to support initiatives like internet.org that are designed to increase internet penetration in the developing world. We'll also continue to make strategic investments to improve capital efficiency.

Last, in terms of revenue, in 2014 we hope to build on our success from last year. 2013 strong growth in ads revenue was driven by the rapid ramp up of newsfeed ads, growth in users, engagement, and marketers using Facebook, and by the product investments we made that improve the quality relevance, and performance of our ads.

As Sheryl described, we believe we're still early in the evolution of our advertising business and the mobile ad business in general. This makes for a difficult time to forecast near term revenues with any precision, but it also makes for an exciting time, and we're looking forward to capitalizing on this opportunity.

To sum up, Q4 was a strong end to a great year for Facebook. Thanks for joining us on the call today, and now let's open for questions.

Question-and-Answer Session

Operator

[Operator instructions.] Your first question comes from the line of Ben Schachter with Macquarie.

Ben Schachter - Macquarie

Sheryl, I was wondering if you could rank order the four groups of marketers and discuss how SMBs play out over time versus the larger enterprise companies. And then Mark, if you could talk more, expand more, on what you mean by standalone mobile apps, and really what your vision is there. And I understand you're speaking at Mobile World Congress, so any update on what we should expect on that?

Sheryl Sandberg

We don't break out by segment, but all four segments are growing, and we're pleased with the growth there. I'm glad you asked about SMBs, because it's a particular focus for us, and somewhere I'm really proud of our performance. Our teams, led by Dan Levy and others, have just done a great job.

There are 25 million SMBs that have pages on Facebook, and that's a really great first step, because just historically, it's very hard to get small businesses online. What we've done over the last year is we've really worked at simplifying our ad product.

And that's working, because the way to convert our SMBs who are using our free product into being advertisers are with these really simple ad products. So rather than going to them and saying, do you want to become an advertiser, you say, do you want to promote a post. And that's what's working, and we're able to convert them to advertising, and then upsell them from there in large numbers. And we're excited about it.

Mark Zuckerberg

And in terms of the focus on building new and separate experiences, our theory is that there are all these different ways that people want to share and communicate. Almost any kind of content that you can imagine sharing: text, photos, videos, links, locations, events, games, any type of content, with any type of audience. You know, whether it's privately in a one-on-one situation, or small groups, or with all of your friends, or a larger community, or publicly.

There's an interesting intersection between most of these things, and one of the things that we want to try to do over the next few years is build a handful of great new experiences that are separate from what you think of as Facebook today that are just kind of helping to explore that space and give people new ways to share. I think you can see that that's something that people want, from some of the mobile apps that exist out there today. You can see it from our own offering, with not just Facebook but also Instagram and messenger already today. And we're going to keep on working on this over the next few years.

Operator

The next question comes from Heather Bellini with Goldman Sachs.

Heather Bellini - Goldman Sachs

I have two questions. The first one, there's been a lot of talk about Messenger over the last couple of quarters. I'm just wondering if you could share with us how you see the competitive environment for Facebook in the area of messaging, in particular in regions like Asia. And how do you see Facebook differentiating itself and maybe changing the user behavior from some of the newer companies that have aggregated a large number of users in the space?

And then my second question is just for David in regard to seasonality of ad revenue. And obviously it typically declines in Q1. I'm just wondering if we're at the point now where we should see seasonality of mobile ad revenue in Q1.

Mark Zuckerberg

I can talk to Messenger a bit. If you think about the overall space of sharing and communication, there's not just one thing that people are doing. People want to have the ability to share any kind of content with any audience. There are going to be a lot of different apps that exist, and Facebook has always had the mission of helping people share any kind of content with any audience, but historically we've done that through a single app.

And one of the stats that I shared today is that we now have more than half a billion people using Groups every month. And that's not something that I think a lot of people are paying attention to, because it was sort of seen as a feature of the Facebook app rather than its own product.

So what we're doing with Messenger now, similarly, a lot of people are using Messenger every day, but it's like a feature of Facebook rather than its own network or standalone thing. And we're making it more of a standalone app, and we've actually, in the latest quarter, we've taken it out of the main app, so that way it gets room to breathe and blossom as its own great experience. And we're going to focus on making that really good and adding a lot of new things.

I mean, some of the stats that I shared are incredibly promising. In the last few months, 70% more people are using it, and a lot of message volume growth. So we're still focused on kind of general growth for Messenger rather than going country-specific at this point in its evolution.

David Ebersman

Thanks for your question on seasonality. Of course seasonality is an important factor in an advertising business, and affects Q4 and makes it a typically strong quarter. At this point, given how new we are with the mobile business, I think it's really difficult for us to quantify the impact of seasonality. I think it will take some more time before we can understand it better than we do.

Operator

The next question comes from Mark May with Citibank.

Mark May - Citibank

Just would love to get some updates on some of the efforts that you're making in terms of brand and real time conversation. I think on the user side, would love to get some interest in terms of the usage and engagement with video content early on, and real time conversations, particularly around entertainment related content. And then on the advertiser side, kind of early adoption by brand and TV-like advertisers with some of the brand and video solutions that you have out there.

And then for David, given the significant transition that the business continues to go through that is affecting these ad impression and average price metrics, can you give us a sense of the breakdown between the ad impressions between desktop and mobile?

Mark Zuckerberg

I'll start here on the public content piece, and then I think Sheryl will get into some of the specifics. But I just want to put this in the context of the overall strategy here. We were just talking about some of the standalone experiences and Messenger, and public content is part of this overall spectrum of content that people want to share and consume as well. In some ways, it's the complete opposite side of the spectrum from one-on-one messaging, but it's also an area where I think the medium of newsfeed and Facebook works really well.

So we've been focused on improving the tools for public discussion and folks to be able to share public content, including premium content like videos and

making it so that they can autoplay in feed. And this is an area where, just like Messaging and some of the other things we've talked about, you should expect us to keep focusing on a lot. It's part of the overall space of sharing that we think is quite valuable. I think Sheryl is going to get into some of the specifics.

Sheryl Sandberg

Yeah, I can start with video and then go to the overall brand question you started with. We have a current video ads product that works very well. It's part of what's driving our growth. We have also recently started testing an autoplay video ad. That's just a very small test. But overall, we're seeing what Mark has talked about, which is that marketers and users are using video more, as they have the technology to do so. And we expect that to continue to grow.

In our overall brand effort, we're making really good and steady progress as we are with all of our market segments. All of the Ad Age Global 100 advertised with us over the past year. And the real key there is proving measurement to our clients. Our team, led by Carolyn Everson and her people all around the world, really have to go client by client and show them that we can not just increase people's happiness or brand affiliation, but ring the cash register at the end of the day.

I think this is part of the big story for us in 2013, which is if you look back a year, we didn't have that ability to look at the [AB] test of who saw our ads, and what the different in sales is. And now we have that. And we still have a lot of hard work to do, client by client, ahead of us, but being able to prove that we have really strong ROI, and I think increasingly efficient ROI, compared to the other marketing opportunities they have, is what is going to move the brand marketers to Facebook and to mobile.

David Ebersman

Your second question about mobile and desktop impressions, as you know, per user or per unit of time on the desktop, we show a higher number of ads, because there's the right hand column ads in addition to newsfeed. But we're extremely pleased with how well the newsfeed ads continue to performance, and that's really what's driving up the average price per ad, as I described. So these ads perform well for marketers and are still continuing to contribute to the positive user experience that Mark described earlier.

Operator

The next question comes from Anthony DiClemente with Nomura.

Anthony DiClemente - Nomura

First, for David, I wonder if you could comment on the ad load on Facebook. Do you expect that to continue to remain stable, or is there a possibility that the ad load creeps up over time?

And on Instagram, I know it's a new product, and you guys are taking it slowly at first, but I wonder if you could also talk about how long it might take for Instagram to get to a similar ad load to Facebook's levels.

And then one last question for Sheryl, I wonder is there a way, when you compare Facebook to television for brand marketers, to look at the disparity of ROI, or I should say the improved ROI for Facebook, and sort of extrapolate where you think pricing could go. Obviously pricing doubling quite a bit. How much more upside to Facebook newsfeed pricing can we expect to see based on the ROI differential?

Mark Zuckerberg

I just want to start off here, and then David can get into some of the details on the number of ads and all that. But you know, the strategy has been, for the last period, and will continue to be, to primarily focus on increasing the quality of the ads and the experience.

And I really think that it's easy to look at the model and say, okay, if we ran more ads then the business would grow faster in the short term, but investing in quality is really actually the most important thing, because it's what improves the experience for the people who use the product. It drives greater returns for advertisers, and over time it increases the potential size of our business.

And I think you can say that that's a harder path for us to take, but I actually think that the results over the last couple of quarters have really shown that by focusing on improving quality instead of just increasing quantity, we can actually drive pretty incredible business results. So we think that there's more to do here, and that's what we're going to keep on doing.

David Ebersman

I think I can take most of the rest of this. In terms of ad load, the one piece of context maybe to start with is the variable we're really focused on optimizing isn't ad load per se, but it's the user experience, as you can measure that based on engagement or user feedback, etc. And ad load is one of the variables that impacts that, but there's other relevant variables as

well, such as the positioning of the ads, the size of the ads, and of course critically the quality of the ads. So ad load only gives a part of the picture.

And we're really one or two years into this, and we're still learning how to provide the best experience. I think one of the most important pieces of positive news from 2013 was as we ramped up newsfeed ads, they performed as well as they did, delivering great value for marketers, having a very minimal effect on the user experience, and enabling Facebook to deliver the kind of results that we reported today.

So going forward, we'll continue to tweak what we do in terms of trying to find the right balance and optimize the performance of the ads for marketers and for users, but generally, as Mark said, the most important place for us to invest is going to be in improving the quality and relevance of the ads.

You asked about Instagram and pricing, so let me just cover those quickly. Instagram I would say we're just really early with Instagram. So it's too early to talk about where we're going to be going. We're still trying to learn what the right way to approach that product is, and we're going to move slowly, because we think that's the right thing to do for Instagram

In terms of pricing, it was our expectation that if ads in newsfeed worked well, that they would deliver more value for marketers, be more engaging, and that they would contribute to the average price per ad on Facebook going up. And we also believe, looking forward, if we continue to improve the quality and relevance of the ads we show, that that's a critical way that we can drive pricing up in the future.

Operator

The next question comes from Douglas Anmuth from JPMorgan.

Douglas Anmuth - JPMorgan

Just wanted to ask two things. First, you announced an initiative or perhaps an algorithm tweak, I think, in early December to have more news stories in users' feeds. And I was just curious what the adoption has been thus far from users there, and what are the implications on usage and engagement, and then also ad load. And then secondly, can you give us an update on teen engagement trends?

Mark Zuckerberg

To start with the public content, the change that we made is basically a lot of what our algorithm looks at is straight engagement. So the amount of content that people click, like, comment, and share in feed. But what we found was that when we asked people qualitatively what they prefer getting, it didn't often match up, because a lot of things like memes scored very high in terms of getting a lot of people to like them, but weren't necessarily, when you asked people, what they wanted to see in feed, or what they were happy seeing, didn't score that way.

So we ended up doing an adjustment to the algorithm, which made it so that qualitatively things and especially public content and news that people rated as higher quality qualitatively scored more, and that was basically the adjustment to the algorithm. It had really no impact on ads. It was an organic content adjustment that we made to improve the quality of the experience. So I think David can talk about teens.

David Ebersman

In terms of teens, we don't have any new data to report today. As you know, we take engagement very seriously, and we're focused on building great products that all our users, including teens, will find useful and engaging. And that's the most important thing for us to stay focused on.

Operator

The next question comes from Scott Devitt from Morgan Stanley.

Scott Devitt - Morgan Stanley

I had a couple of product questions for Mark. The first one on Graph Search, just wondering how users are engaging with the product, how it developed, what the product is, in terms of what we can see today relative to what your longer term aspirations are for the product.

And then just a follow up on Doug's question, related to the news flow integration into newsfeed. You know, another feature that's been added more recently is trending and attaching trending to news articles in newsfeed as well. So if you could talk more broadly about your interest in real time information and news as it relates to public content, that would be helpful.

Mark Zuckerberg

Starting with Graph Search, we're really early in the game on this, and I think you can see that because we haven't even really rolled out our mobile version of Graph Search yet, and we're a mobile company, and we started on desktop. The way that we're thinking about this, there's just so much content that people have shared on Facebook that simply building the

infrastructure to index all of it and start ranking it is a multiyear effort, which we're making our way through.

So the first release indexed more than a trillion connections between all the people and interests and events and groups and things that everyone was connected to. The second release that we did recently was around all the updates. So there are more than a trillion status updates and unstructured text posts and photos and pieces of content that people have shared over the past 10 years, and indexing that was a really big deal, because as the number of people on the team who have worked on web search engines in the past have told me, a trillion pieces of content is more than the index in any web search engine.

So we're kind of making our way through this. Pretty soon, I think you should expect us to roll out the mobile version of this. I think that's going to be an important step, because most of the usage in Facebook overall is on mobile, so we expect that that's where engagement will really start to come from on Graph Search over time.

But it's also only in English so far, and we have to internationalize it. So there's a long roadmap of things that we need to do that I think is pretty clear, but it's just going to be incredibly useful when it's ready. We look at this as an investment over a three to five year period rather than a one to two or shorter period. So that's how I think about that.

The other question was about trending topics, and that really ties into the public content push that we have. And we talked a bit about this before. We're trying to build great experiences for all types of content that people want to share and consume with all audiences.

We think public content is great. Folks who are making news, or premium content on TV, or movies, or celebrities and different types of folks are extremely interesting and produce great content, and we want to be a great place for people to share that content, and for people to be able to learn about it and consume it. So trending topics is one step in what you will see as a pretty long roadmap of things that we're going to do to make Facebook great for public content.

Operator

The next question comes from Eric Sheridan with UBS.

Eric Sheridan - UBS

First one for Sheryl. I would love to get an update on how the company's thinking about mobile retargeting ads. You've seen a lot of success with

retargeting on desktop, but how you can think about the evolution of retargeting in the mobile environment as a future product. And I guess second question for Mark, not a lot of talk on the payments business so far in the call, and just wanting to understand, maybe an update around games or other areas of ecommerce that you think are opportunities for the payments business.

Sheryl Sandberg

On retargeting, retargeting has been proven really valuable across all platforms. We've allowed it through [FBX], and increasingly we're allowing it through our own products as well. As part of our custom audiences suite of offerings, we're offering website custom audiences and mobile app custom audiences. And these all allow marketers to target ads in privacy safe ways that improve the relevance and improve results.

I think when people think about targeting, what they're really thinking about is relevance, and taking the data and using it in a privacy safe way to increase the relevance of ads to users. And that's something we're working on.

Mark Zuckerberg

For payments, we don't think about our business so much as an advertising or payments business as we've built this network and we help businesses reach people with relevant messages. And payments historically has been a great way for game developers, especially on desktop, an efficient way for us to monetize that business, because instead of charging them up front for most of the ads, we can charge them only when their business grows because someone is paying for something.

On mobile, I think the natural evolution of this is for that to move toward app install ads, where we're not running the payment system on mobile. The operating systems are integrated with that. But because a lot of the goods that people are buying in games are no marginal cost, a developer's economic incentive is to advertise to get more people to come into their flow for as many people as they can get to buy the goods.

So even though a game developer might be paying 30% to the operating system maker for payments, we're finding that people also really want to buy a lot of app install ads, and that's grown incredibly quickly, and is one of the best parts of the ad work that we did over the last year.

Operator

The next question comes from John Blackledge with Cowen & Company.

John Blackledge - Cowen & Company

Two questions. First, Mark, you referenced 2014 as a year of rolling out new and engaging mobile products. Maybe could you provide some color or highlight the types of products that users can expect, or maybe how you think about improving mobile engagement? And then just on Instagram, can you give us an update on the number of monthly active users ending 2013 and give us a sense of how the data testing is going with advertisers, and when it might be available for all advertisers?

Mark Zuckerberg

Before I get into some of the newer types of things, which we've actually touched on most of them already on the call, I also want to take a moment just to emphasize that we're going to start building new experiences, but they're going to start small compared to where the core of Facebook is.

So most of the results that we're going to see in terms of the increase in engagement and sharing and our business are going to come from the core Facebook experience, because mathematically, it's just so much bigger than everything else that is out there that the numbers, you'd have to be multiyear investments to add up to that.

I mean, you can look at, for example, comScore puts out these numbers every month or so that reference the amount of time that people spend in different mobile apps. Facebook I think is almost 5-10 times bigger than the next app that is out there. So it's going to take a while for any of these things to turn into huge things.

So some of the things that we're thinking about are all of the different kinds of ways that people might want to share different kinds of content with different audiences. So I talked about Groups earlier on the call. That's something that half a billion people are using. It's currently a feature within the Facebook app.

Giving experiences like that room to breathe and really develop to be their own brand, I think, is a huge and valuable thing. It's not necessarily the next thing that we're going to go do, but it's kind of an example of the type of audience and type of content that people might want to share.

Examples of things that we have done are Messenger is a really big focus for us, and we're focusing on that as a standalone experience. Instagram is a different kind of community than Facebook. We just launched Instagram Direct within Instagram, which is one on one or small group photo and video sharing. And you can kind of view that as the kind of experience that we're going to be rolling out.

But there's a lot of space here, for a lot of different kinds of things, and what I think you should take away from this is that while the core business growth is going to come from the main app that exists, just because the numbers are so much bigger than everything else today, that that's going to just be where most of the momentum comes from.

You should also expect us to start building a few of these other things that we'll focus on over a long period of time and hopefully build into meaningful things, like Messenger and Instagram are today.

Operator

The next question comes from Brian Pitz with Jefferies.

Brian Pitz - Jefferies & Company

Mark, last week on the Facebook developer's blog, there was an entry that noted you were testing placement of ads in third party mobile apps. Just wondered if you could provide an update on how these tests may be going. And then separately, it appears that the growth on desktop ads reaccelerated during the quarter. Can you talk a bit about the drivers of that?

Sheryl Sandberg

On the Facebook ads in third-party mobile apps, it's a small test we just started that aims to show Facebook ads off of Facebook for mobile apps. So we don't have results yet. We are very excited about the mobile app space in general. If you look at our mobile app installation [adds], we've really done a great job working with developers to help users discover and download their apps. And the product we rolled out last quarter, which is the engagement ads, then help developers get people engaged or reengaged in their apps. And so it's a small, important, and growing space, and we feel really good about the progress we've made with those ads on Facebook. When you look at off-Facebook, really early test.

David Ebersman

In terms of desktop, I'd say the two trends that really benefitted desktop in the fourth quarter were similar to what we described earlier. One was just holiday strength that we saw in the business and the second was the strong performance of newsfeed ads, which we show in both mobile and desktop. So that worked well for us in the fourth quarter, just recognizing still that the user numbers on desktop continue to sort of decline modestly overall, and that's obviously an important headwind for the revenue from that part of the business.

Operator

The next question comes from Ross Sandler with Deutsche Bank.

Ross Sandler - Deutsche Bank

Mark, I had a follow up from one of the previous questions, on closing the loop in mobile. You guys have made a lot of progress improving the total mobile ad experience, yet there's still a lot of friction in downloading apps and making purchases today. You guys have recently rolled out some new ad formats, and you have some partnerships with the likes of Braintree and Stripe and some of the other payment guys. So what's your vision for removing some of this friction for marketers, and do you envision a scenario where users can buy physical or digital products within the Facebook mobile apps?

Sheryl Sandberg

I can take this. Obviously, the mobile app world is a new world, and not just the functionality in ads is still developing, but the functionality of what then people can do. You can do a lot more on the desktop in many ways than you can on mobile. I think the best role we play is to help connect consumers with marketers and with companies and services, and I think reducing the friction there is really important. We don't have any plans to go into the direct ecommerce market, because the advertising products we provide I think are the best thing we can provide to help grow this market.

Operator

The next question comes from Tom Forte with Telsey Advisory Group.

Tom Forte - Telsey Advisory Group

On contextual advertising, this is essentially the Holy Grail for Facebook, and I think you understand this. Can you talk about where we are as far as innings on getting contextual ads? And can you talk about the role that Instagram plays with visually appealing ads and the role that video plays?

Sheryl Sandberg

As I said, and I've talked about each quarter, targeting is a huge, huge issue for us, and a huge opportunity and challenge. Our goal is in a privacy safe way to get information we can about what consumers want, and then help connect marketers, so that the ad experience is great for users. We're serving relevant ads. Whether that information comes from the kind of things people like on Facebook or other websites they visit, or contextual

statements they might make in their status updates, our goal is to use that information in a privacy safe way to improve the targeting of the ads on Facebook.

To take one example, if you look at what's happening with our direct response business, which has been a very strong segment for us, if you look at people trying to find consumers, we offer the opportunity to get people before they search. We can judge interest based on other things, other things they're interested in, and give people the opportunity to find consumers before they search so that they can then move them all the way down the funnel into purchase.

Operator

The next question comes from Jordan Rohan with Stifel.

Jordan Rohan - Stifel Nicolaus

I'm curious if you could help me understand the international market development and modernization for Facebook's ad platforms. Specifically, can you speak to the buildout of international direct sales force, the channel partners, the number of international markets, in which FBX is operational, and the extent of geographic rollout of the cost per install ad units in the newsfeed? Is that available everywhere? Where are we compared to the U.S.?

Sheryl Sandberg

The buildout globally is going well. We've always been pretty conservative. We wait until we have a very strong user base in other countries, and we wait until there's a developed ad market. But we're growing. We have a PMD ecosystem, which now covers 45 countries. I was actually in Turkey at the beginning of last week and had a chance to meet with our advertising partners there, and they are increasingly using our platform to reach consumers. We are growing our offices. We're growing our offices in Asia particularly this year, and we've rolled out offices across Europe as well. In terms of rolling out products, we tend to roll out products in our most developed markets first. And as we extend those products, we then extend them to the rest of the world.

Operator

The next question comes from Colin Sebastian with Robert Baird & Company.

Colin Sebastian - Robert Baird

I just have a couple of questions. The first one, I guess, on app install ads, if you could quantify how much those are driving growth in newsfeed advertising. And if not specifically, then maybe on a relative basis, through other mobile ad formats? And then second, Mark, the company has made some interesting hires in the area of machine learning, and I'm curious if you could characterize how important this initiative is to the company, and how you think that AI will help Facebook over time.

Sheryl Sandberg

On the first, we're excited about our mobile app install ads and our mobile app engagement ads. It's a small but growing category. We don't split out by segment. But one thing that's really important to note is that our mobile ad strength is very broad-based. Our mobile ads are not just bought by people who are looking to drive engagement or usage of mobile apps, but is very broad-based. We're being used by SMBs, brand advertisers, and direct response advertisers as well.

Mark Zuckerberg

And I can speak to some of the deep learning work. In the last quarter, Yann Lecun, one of the really earliest folks, and one of the founders of deep learning, and a professor at NYU, joined us to lead our AI group. And this is a long term research group that we have. It's going to fit into our strategy over a longer, maybe five or ten year, period.

And their goal is really just to try to understand how everything on Facebook is connected, by understanding what the posts that people write mean, and the content that is in the photos and videos that people are sharing, help people with tasks like if you're sharing a voice clip in messenger, being able to transcribe that for people, so that they can receive it more easily.

So these are some pretty big tasks in AI that are things that we have teams that are working on that will need to be researched over time, and will have obvious implications for the products that we do, but over time the real value will be if we can understand the meaning of all the content that people are sharing, that we can just provide much more relevant experiences for people across everything that we do.

Internally, we talk about our strategy, and there's a three-year strategy, a five-year strategy, and a 10-year strategy. And the three-year plan is really all about building new kinds of experiences for sharing, like so many of the questions on this call have been about. The five-year approach is really mostly about helping people use their network to answer interesting questions or solve problems that they have.

And that's where all the Graph Search work and the open graph work and some of the early parts of the AI work that we're doing you're going to start to see over that period of time. And then over a 10-year period, I think you'll really start to see a lot of the impact of some of the internet.org work that we're doing, where hopefully we'll see some impact a lot sooner than that as well.

But over a 10-year period, if we can get a lot more of the world on the internet, I think that's going to really mean a quite different world in terms of what folks in a lot of developing countries have access to in terms of some of the things I said in my opening remarks, around basic financial services, and people can get credit to start businesses, and buy homes, really lifechanging stuff, or get access to health information or education materials, which I think are just a really big deal. And over the long term, we've always wanted to help out with that, and I think that's where we're going to go on that.

Operator

Our last question will come from Mark Mahaney from RBC.

Mark Mahaney - RBC Capital Markets

David, can you just talk about the sustainability of the gross margin that you had in the quarter? It seemed pretty high. And then Mark, hopefully this isn't redundant. When you think about the potential for ad quality at Facebook over the next three to five years, and you've gone through a lot of learnings over the last two years on ad quality, how do you think about what the upside is? I know that's a broad, general question, but if you think about all the different drivers, have there been certain moments when you've seen real gap opportunities? Are there any proxies out there that you see that you say, well, this is where Facebook could be? Any thoughts on how much higher, how much better, over the years, ad quality could be on Facebook?

David Ebersman

I'll start with the question on gross margins. I think in Q4, as you know, gross margins tend to be seasonally strong, because revenue goes up in the fourth quarter and the costs associated with operating our infrastructure don't go up accordingly with the seasonal strength in advertising revenue. So directionally, I think it's important to note we really had a great year in 2013, in terms of the efficiency investments that we made.

But going forward, this is a compute heavy service we provide. It requires a lot of data centers and servers and infrastructure. We're going to continue to

invest in those things and we do expect to increase our infrastructure costs over time while trying to do that as efficiently as possible.

Mark Zuckerberg

And in terms of quality, I just think that there's a lot of room to grow here. I said in my opening remarks that we have this long term goal of making the advertising quality content as good and as relevant and timely as the content that your friends are sharing with you. And at first blush, I think that seems kind of crazy in that your friends' stuff will obviously always have the advantage of being immediately socially relevant to you.

But at the same time, a lot of the folks who are advertising really invest in the quality of the content that they're producing and putting into their ads, and improving the targeting of their ads to deliver the right messages to the right people. And I don't think that there's a single step function that we're going to see here, although there are things like the video formats that really enable new kinds of rich experiences, that folks who can invest in building those can really benefit from.

At the same time, I think a lot of this is going to be incremental. So as we make improvements, more advertisers come into the system, and as more advertisers come into the system, we have more options of relevant content to show to people, and that improves the quality as well. So this is just going to be something that we're going to focus on for a while, and there's a long way to go before we get to the quality level that we want. But I think over a multiyear period, we can get there, or at least very close.

Sheryl Sandberg

And that's a nice way to end the call, because one of the really big opportunities we have is to make these ads [at scale] more personal. So just as we can have social context, obviously, from the user content, we put social context into ads. So we can take these ads that marketers can deliver up scale, improve the targeting, and give them social context, which will help drive the kind of opportunities Mark is talking about to make the ads as relevant as the user content.