

Operator

Good day, ladies and gentlemen, and welcome to the Alphabet Fourth Quarter 2016 Earnings Conference Call. At this time, all participants are in a listen-only mode. Later, we will conduct a question-and-answer session and instructions will follow at that time. As a reminder, today's conference call is being recorded.

I would now like to turn the conference over to Ellen West, Head of Investor Relations. Please go ahead.

Ellen West - Alphabet, Inc

Thank you. Good afternoon, everyone, and welcome to Alphabet's fourth quarter 2016 earnings conference call. With us today are Ruth Porat and Sundar Pichai. While you've been waiting for the call to start, you've been listening to Ingrid Michaelson. In just a decade, she has released six albums, five of which have charted. The song you just heard, Celebrate, is from her latest release titled, "It Doesn't Have To Make Sense". Please check out her YouTube channel.

Now, I'll quickly cover the Safe Harbor. Some of the statements that we make today may be considered forward-looking, including statements regarding our future investments, our long-term growth and innovation, the expected performance of our businesses and our expected level of capital expenditures. These statements involve a number of risks and uncertainties that could cause actual results to differ materially. For more information, please refer to the risk factors discussed in our Form 10-K for 2015, filed with the SEC. Any forward-looking statements that we make are based on assumptions as of today, and we undertake no obligation to update them.

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. As you know, we distribute our earnings release through our Investor Relations website, located at abc.xyz/investor. This call is also being webcast from our IR website where a replay of the call will be available later today.

And now, I'll turn the call over to Ruth.

Ruth Porat - Alphabet, Inc.

Thank you. Our revenue of \$26.1 billion in the fourth quarter underscores the continued excellent performance of our businesses globally. For the fourth quarter, our consolidated revenue grew 24% in constant currency versus 4Q 2015, notwithstanding a challenging year-on-year comparison.

Advertising revenue growth was driven by Mobile Search with ongoing strength in YouTube and programmatic. We also had substantial growth in other revenues from hardware, Play and Cloud.

Our outline for today's call is first, I'll review the quarter on a consolidated basis for Alphabet. Given the obvious seasonality in Q4, I'll focus on year-over-year changes in our results. You can find quarterly comparisons in the earnings release. Second, I'll review the results for Google and then Other Bets. Finally, I will conclude with a summary of the full-year results and our outlook. Sundar will then review our business and product highlights for the quarter, after which we will take questions.

Let me start with a summary of Alphabet's consolidated financial performance for the quarter. Total revenue was \$26.1 billion, up 22% year-over-year. We realized a negative currency impact on our revenues year-over-year of \$202 million or \$15 million after the benefit of our hedging program. Holding currency constant to the prior period, our total revenue grew 24% year-over-year.

Alphabet revenues by geography highlight the strength of our business around the globe. U.S. revenue was up 24% year-over-year to \$12.7 billion. U.K. revenue was up 7% year-over-year to \$2.1 billion, reflecting the continued weakness of the British pound relative to last year. In fixed FX terms, the U.K. grew 21% year-over-year.

Rest of world revenue was up 24% versus last year to \$11.3 billion. In fixed FX terms, revenues were up 26% year-over-year. GAAP other cost of revenues was \$5.8 billion, up 41% year-over-year. Non-GAAP other cost of revenues was \$5.5 billion, up 41% year-over-year, primarily driven by Google-related expenses; specifically, costs associated with operating our data centers including depreciation and content acquisition costs primarily for YouTube as well as hardware.

The impact of our Q4 hardware launches is reflected in both revenues and cost of revenues. However, it's important to note the cost of revenues was also affected by approximately \$320 million of one-time charges related to equipment and another adjustments, which were unrelated to hardware.

GAAP operating expenses were \$8.8 billion in the quarter, up 13% year-over-year. Non-GAAP operating expenses were \$7.3 billion, up 10% year-over-year. Year-on-year comparisons in part reflect the impact of the expenses from project milestones and Other Bets in 4Q 2015 that we discussed last year. On a GAAP basis, operating income was \$6.6 billion, up 23% versus last year. The operating margin was 25%. Non-GAAP operating income was \$8.5 billion, up 24% versus last year. The operating margin was

33%. Stock-based compensation totaled \$1.8 billion, up 29% year-over-year. Headcount at the end of the quarter was just over 72,000, up 2,100 people from last quarter. Consistent with prior quarters, the vast majority of new hires were engineers and product managers to support growth in priority areas such as Cloud including the addition of employees from our Apigee acquisition.

Other income and expense was \$218 million. We provide more detail on the line items within OI&E in our earnings press release. Our effective tax rate was 22% for the fourth quarter reflecting the geographic mix of earnings and certain discrete items affecting our U.S. rate. Our effective tax rate for the full year 2016 was 19%. Net income was \$5.3 billion on a GAAP basis and \$6.6 billion on a non-GAAP basis. Earnings per diluted share were \$7.56 on a GAAP basis and \$9.36 on a non-GAAP basis.

Turning now to CapEx and operating cash flow. Cash CapEx for the quarter was \$3.1 billion. Operating cash flow was \$9.4 billion with free cash flow of \$6.3 billion. We ended the quarter with cash and marketable securities of \$86.3 billion of which approximately \$52 billion or 61% is held overseas.

Let me now turn to our segment financial results starting with the Google segment. Revenue was \$25.8 billion, up 22% year-over-year which includes the impact of FX. In terms of the revenue detail, Google Sites revenue was \$18 billion in the quarter, up 20% year-over-year. Year-on-year growth reflects strength in Mobile Search. YouTube revenue continues to grow at a very significant rate, driven primarily by video advertising across TrueView including buying on DoubleClick Bid Manager. Network revenue was \$4.4 billion, up 7% year-on-year reflecting the ongoing strong growth of programmatic and AdMob offset by the traditional network businesses.

Other revenue for Google was \$3.4 billion, up 62% year-over-year with strong performance from each of hardware, Play and Cloud. Finally, we continue to provide monetization metrics to give you a sense of the price and volume dynamics of our advertising businesses. You can find the details in our earnings press release.

Let me remind you that these metrics are affected by currency movements. Total traffic acquisition costs were \$4.8 billion or 22% of total advertising revenue and up 20% year-over-year. The increase in both Sites TAC as a percentage of Sites revenue, as well as network TAC as a percentage of network revenue, reflects the fact that our strongest growth areas, namely Mobile Search and programmatic, carry higher TAC. Total TAC as a percentage of total advertising revenues was up as a result of an increase in the Sites TAC rate driven by the shift to mobile which was partially offset by a favorable revenue mix shift from network to sites which carries lower TAC.

Operating income excluding SBC was \$9.5 billion, up 19% versus last year for an operating margin of 37%. Google's stock-based compensation totaled \$1.7 billion for the quarter, up 29% year-over-year.

Operating income reflecting the impact of SBC was \$7.9 billion, up 17% versus last year, and the operating margin was 31%. Accrued CapEx for the quarter was \$2.9 billion, reflecting investments in production equipment, facilities, and data center construction.

Turning to Other Bets, I'll cover results for the full year 2016 because it's most instructive to look at financials for Other Bets over a longer time horizon as discussed previously. Results for the quarter are in our earnings release.

For the full year 2016, Other Bets revenue was \$809 million, up 82% versus 2015, primarily generated by Nest, Fiber and Verily. Operating loss excluding SBC was \$2.9 billion for the full year 2016, a slight decline from 2015. Including the impact of SBC, the operating loss was \$3.6 billion for the full year, an increase of 4% over 2015.

Other Bets accrued CapEx was \$1.4 billion for the full year 2016, up 63% over 2015. Before I move to my conclusion, I'll quickly cover some specific changes to our past practices.

First, we are making changes to our non-GAAP reporting. SBC has always been an important part of how we reward our employees in a way that aligns their interests with those of all shareholders. Although it's not a cash expense, we consider it to be a real cost of running our business because SBC is critical to our ability to attract and retain the best talent in the world. Starting with our first quarter results for 2017, we will no longer regularly exclude stock-based compensation expense from non-GAAP results. Noncash stock-based compensation will continue to be reported on our cash flow statement, but we will no longer be providing a reconciliation from GAAP to non-GAAP measures that reflects SBC and related tax benefits.

Second, we are shifting the timing of our annual equity refresh cycle for employees to the first quarter of every year. The next full year equity refresh will occur in the first quarter of 2018. Because the last full employee equity refresh occurred in the third quarter of 2016, we are providing employees with a one-time half grant in the first quarter of 2017. Overall, total SBC for 2017 will be roughly the same as it would have been had we maintained a Q3 refresh cycle. However, given the shift in refresh timing, there will not be the historical seasonal increase in SBC in Q3 and Q4. We do not plan any changes to our senior executives' equity refresh, which occurs every two years with an excellent plan for 2018.

Third, to hedge our non-U.S. dollar earnings, we are moving from using options-only to using primarily forwards. We believe they will be a more effective way to hedge earnings. We intend to continue to use options selectively.

We continue to believe that constant currency revenue growth provides the best insight into underlying trends by isolating the impact of currency movements on revenue. We will continue to provide constant currency results for consolidated revenues, as well as for revenues by geography. This will give you a view into the effects of currency movements on our revenue.

Turning now to our full-year 2016 performance and outlook. 2016 was simply a great year for us. Our extraordinarily talented employees worked very hard and successfully for our users around the globe. That commitment is reflected in the company's exceptional financial results. For the full year 2016, consolidated revenue grew 20% and excluding the impact of currency movements grew 24%. GAAP operating income was up 23%. This performance is a testament to the ongoing innovation that is driving our success in Mobile Search, YouTube and programmatic advertising, each of which we believe has only begun to scratch the surface. We remain excited about the sizable opportunities that have not yet been tapped.

Alongside these businesses, we are focused on growing additional revenue streams within Google over the medium and long-term. In 2016, our other revenue line grew 41% on a full year basis, reflecting the growth in our Play, hardware and Cloud businesses. We see tremendous potential ahead for these businesses, as well as in the continued development of non-advertising revenue streams for YouTube. We're investing in our Cloud and hardware businesses as well as our newer non-ad revenue sources for YouTube in order to accelerate their progress as major revenue drivers for Google in the next several years. We're also investing significantly in the machine learning capabilities and next-generation computing infrastructure that will propel Google's growth over the longer-term.

For our Other Bets, we continue to calibrate the magnitude and pace of investment appropriate to their individual execution paths. A couple of our recent announcements demonstrate our approach here.

First, in December, Waymo graduated into a standalone business within Other Bets. We did this because Waymo achieved agreed thresholds on the path to commercialization in its technical and business model. Waymo continues to excel at safety, has begun putting its new Chrysler Pacifica minivans on the road and is continuing to drive down hardware costs.

Nest delivered an outstanding performance this holiday season with sales of key products more than doubling over the two weeks including Black Friday and Cyber Monday.

And just this morning, Verily announced that Temasek has agreed to invest \$800 million for a minority stake in the company. Temasek's extensive experience with life sciences and healthcare companies and deep understanding of Asian markets make it a valuable long-term partner for Verily.

The internal transparency we've provided to our business leaders across the Other Bets and Google is helping us to allocate resources more thoughtfully across the opportunities that we see. We remain committed to managing for long-term revenue and EPS growth for dollars rather than margin targets, while exercising careful stewardship over the amounts and pace of investment.

I will now turn the call over to Sundar.

Sundar Pichai - Alphabet, Inc.

Thanks, Ruth. 2016 was a great year for Google, and 2017 is shaping up to be even more exciting. This quarter was about the business firing on all cylinders and terrific progress across Google's newer areas of investment.

Today, I'm going to talk about three things. First, the key trend powering Google today, machine learning and how it's improving our products and creating lots of opportunities. In particular, how it's underpinning our core mission of providing access to information for everyone, especially via the Google Assistant, which is off to a great start.

Second, I want to talk about three of our biggest bets, YouTube, Cloud and hardware, where we are making great progress. And third, I'll discuss the great trends we are seeing across the platforms; our vibrant computing platforms, Android, Chrome and Daydream, strong momentum in Google Play, as well as our thriving advertising platform.

First, machine learning and access to information. As I've shared before, computing is moving from a mobile-first to AI-first with more universal ambient and intelligent computing that you can interact with naturally, all made smarter by the progress we are making with machine learning. 2016 was the year that this became central to who we are as a company and the products that we built. We had more than 350 launches powered by machine learning across areas like search, maps, messaging and Google Play.

You've heard lots of these examples; easier e-mail replies and inbox, better YouTube recommendations, the incredible cameras on our Pixel phones, and smarter bidding for advertisers in AdWords.

A centerpiece of our machine learning efforts is the Google Assistant which allows users to have a natural conversation with Google to help them get things done across their experience. It's off to a great start. You can easily ask it to navigate home, tell you about your schedule for the day, or even play trivia. We reached a milestone last month with our announcement of the Assistant developer platform called Actions on Google. It gives developers like Uber, SongPop and Headspace the opportunity to build conversation actions for Google Home, and we'll expand it even further this year. The Assistant is baked into our smart messaging app, Allo, which we expanded this quarter in languages like Hindi, Brazilian Portuguese and Japanese.

This quarter, using neural machine translation, we have improved our translation ability more in one single leap than all our improvements over the last 10 years combined. We'll be rolling neural machine translation out across to more than 100 languages available in Google Translate in 2017 and also for all of our Cloud customers through the Google Cloud Translation API.

And Google Photos, which as you know has machine learning at its heart, continues to grow in popularity. Last quarter, we launched PhotoScan, which helps you digitize all of those old printed photos that are probably stored in a shoebox in your closet, to keep them safe, organized and shareable. In February, we are hosting a summit where our machine learning team and other experts will discuss the future of the TensorFlow open-source initiative and share some of their latest demos.

Now, I want to spend some time talking about three big bets, YouTube, Cloud and hardware. First, YouTube, which remains the premier destination for online video globally and is seeing tremendous growth. At the heart of YouTube's success is its booming community of creators. Every single day, over 1,000 creators reached the milestone of having 1,000 channel subscribers. We are focused on two main areas of investment. First, creating the best video experience that's fast, personalized, searchable, and that just works. We have rolled out many new features to the platform like 360-degree videos, mobile live streams, and support for videos and virtual reality. In regions with limited connectivity, we introduced YouTube Go, which has transparency and control of data usage.

Second, we are focused on delivering content that gives fans exactly what they want through offerings like YouTube Music, YouTube Kids and YouTube

Red. We have 27 originals, pairing some of the most popular YouTube creators with the biggest directors and producers in Hollywood. One of our new originals called This Is Everything, Gigi Gorgeous about the courageous journey of a transgender YouTube star, officially premiered at Sundance just a few days ago. The popularity of this original content has been successful in driving new subscribers and retaining existing ones, and we'll do more in 2017.

Second, our Cloud business is on a terrific upswing. In 2016, we made huge strides building out our product offerings across all areas of Google Cloud Platform or GCP. We routinely hear from customers that we have now moved well beyond table stakes, and we have truly differentiated offerings in four key areas: data analytics and machine learning, security and privacy, tools for application development, and the ability to create connected business platforms, leveraging our recent acquisition of Apigee. Our product advancements across all of GCP, in addition to our increased focus on how we work with the enterprise customers, have enabled us to accelerate growth with new Fortune 2000 customers while also inspiring our current customers to substantially expand their use of GCP.

We have also enjoyed strong growth with G Suite, our cloud-based collaboration and productivity applications. G Suite achieved a significant new customer milestone last quarter. More than 3 million paying businesses are now using G Suite to collaborate smartly and securely in the cloud. Our increased success with enterprise customers relates to the unparalleled security and data protection we can provide by offering an entirely cloud-based solution that enables an extremely strong level of production. For both GCP and G Suite, expanding our partner ecosystem continues to be a big focus. And last quarter, the team announced new alliances including Intel, Improbable, Slack, Pivotal and Red Hat. Our customers and partners are appreciating Google Cloud's dramatically accelerated pace of product rollout, as well as our responsiveness to both their needs and aspirations. We look forward to showcasing customers, partners and all of Google Cloud at our next annual Next user conference in March.

Third, hardware. We introduced a new family of beautiful hardware devices in October that are made by Google, led by Google Home and our Pixel phone, which featured a Google Assistant built in. We are thrilled with the reception as well as the really happy customers we saw over the holiday season. In particular, Google Home was a very popular present that many people opened on Christmas morning. We are committed to this for the long-term as a great way to bring a beautiful seamless Google experience to people. The early signs are promising and you can expect us to see us expand our offerings thoughtfully. We will also continue working closely with our ecosystem partners to create the best experiences for our users.

So those are three of our biggest bets. We are also continuing to push the platforms that are powering our business and our partners' businesses. First, our computing platforms; and second, our advertising platforms. Building powerful open platforms has always been core to Google and our platforms like Android, Chrome and Daydream are creating more innovation, more choice for users and more opportunities for partners. This was on full display at the CES show. There we saw partners like NVIDIA and AirTV introduce new media players based on Android TV. And Casio and New Balance shared their latest Android Wear smartwatches.

We also worked closely with Samsung on a new generation of Chromebooks called the Samsung Chromebook Pro and Plus, which are getting great buzz. And in VR, we recently worked with partners like Huawei and ASUS and others to introduce even more new Daydream-ready devices. CES is just a start and there's a lot more coming from our great partners across these platforms in 2017, and we'll continue working hand-in-hand with them to provide the best experiences for our users.

We're also investing in ways to help developers succeed using our platforms. Last week, we announced that we are acquiring the Fabric mobile app development platform. This will work alongside our Firebase platform to help developers build better apps and grow their businesses. Since we launched Firebase at I/O, developers have created over 1 million Firebase projects. That's incredible momentum. Google Play helps bring our platforms to life on mobile and beyond, and it's experiencing great momentum. As a piece of trivia, do you know what 2016's top movie was on Google Play? I'll provide the answer in a second.

Play had a great quarter with continued growth in our top markets, as well as in emerging markets where user spend grew by more than 70% year-over-year in countries like India, Mexico, Turkey and Saudi Arabia. As the content hub across our growing platforms, the Play team is working hard to help users get the most out of their devices through apps, games and premium content.

In Q4, the Play Store launched on Daydream, Android apps became available on Chromebooks and we announced that the Play Store will soon be coming to Android Wear. The platform is also benefiting significantly from machine learning. We recently introduced a new Google Play music experience that makes music streaming smarter and easier to use with better recommendations and playlists. And the answer to my trivia question, the top movie in 2016 was Deadpool.

Lastly, I quickly touch on the highlights across our growing advertising businesses. I'm so pleased with the terrific partnerships we have continued

to grow this year. We work incredibly closely and deeply with agencies, marketers and publishers worldwide. These relationships owe a lot to the hard work of our fantastic business teams around the world. Our mobile properties like Search, YouTube, Maps, and Google Play are where people turn when they are actively engaged. They are the primetime in the mobile era.

We had another successful holiday season where we saw two clear trends. First, this was the year that mobile shopping went truly mainstream, with shoppers using phones as their door to the store to locate nearby retailers, find promotions and comparison-shopped. We recently introduced promoted places in Google Maps, helping advertisers stand out with branded location icons, showing promotions and live updates of popular times right when someone's looking for it.

Gap Inc is one example of a company that understands the importance of connecting with consumers on mobile devices. In December, they increased their U.S. mobile search ad spend with us; and as a result, they saw about four times the mapped mobile traffic to their U.S. e-commerce sites compared to December of last year.

Second, we saw this season that measurement really matters, and advertisers want reliable ways of understanding where their sales and traffic are coming from and how their campaigns are working. We saw increased use of our popular store visits technology over the holiday shopping season, helping businesses understand how online ads bring customers into their physical stores. In less than two years, store visits have helped advertisers measure over 3 billion store visits globally.

Now, turning to our thriving video ads business, led by YouTube. Marketers are seeing terrific success here. Air France used YouTube's TrueView video ads in order to reach valuable business travelers and new customers around the world. By showing engaging videos, highlighting the unique experiences of Air France, they saw more than 100 million views throughout the campaign.

Turner Sports partnered with YouTube and DoubleClick for NBA opening night to try a new way to reach fans for the start of the season. We help them deliver real-time video ads with behind the scenes pregame footage uploaded immediately into a YouTube TrueView ad campaign. Thanks to the campaign, they were able to reach 19 million more people across the web with 17% left in ad recall. Speaking of DoubleClick, many news publishers who are using our Accelerated Mobile Pages are now plugging into our Ad Exchange to drive revenue. We are thrilled that most publishers are getting higher click-through rates and effective CPMs with the AMP pages.

Before I end, I want to highlight one area that I'm really proud of that Google is truly leading the way. As you know, our data centers from Oklahoma to Chile, to Finland enable our services to be blazing fast and they are what make it possible for Google Photos to offer unlimited storage. But to do all this, they use lots of energy. In 2012, we set the long-term goal to reach 100% renewable energy for our operations. In 2015, we procured enough renewable energy to cover 44% of our total and in 2016 we increased it to more than 50%. I'm really proud that we'll reach 100% renewable energy for global operations in 2017. This is great for the environment and with renewable energy costs declining, it's a huge win for our business results too.

With that, I want to thank the Googlers around the world who help make this another exciting quarter. Over to you, Ruth.

Ruth Porat - Alphabet, Inc.

Thank you, Sundar, and we will now take your questions.

Question-and-Answer Session

Operator

And our first question comes from Heather Bellini of Goldman Sachs. Your line is now open.

Heather Bellini - Goldman Sachs & Co.

Great. Thank you. I had a question for Sundar. I was wondering, I wanted to focus on the cloud business. When we speak with CIOs about GCP, they highlight in many cases the need for Google to improve upon its enterprise sales strategy. I'm just wondering if you could share with us the changes you've been making in that organization and the goals that you have for the cloud business for 2017.

Sundar Pichai - Alphabet, Inc.

Thanks, Heather. As I said in my opening remarks, I do think we have seen tremendous momentum at our partnerships team and how we are approaching. There are a lot of new alliances which I talked about. So now we have teams dedicated to partnering with GSIs and we have a team focused on technology partnerships too. On the GSI front, we announced a new alliance with Accenture last September to create industry solutions for a number of industries including retail. So for me, I think, overall, everywhere I look at we are establishing a world-class enterprise team. Partnerships has been a big focus and I've seen progress there.

I think as I said in my remarks, overall, 2017 I expect to have a lot of momentum because we have moved well beyond the table stakes. Now, we are really competing on areas which we think we have differentiation. I talked about data analytics and machine learning, security and so on. So I think we are well-positioned. The momentum when we look at the numbers internally and as well as the traction we see in competitive situations, I definitely think we are going to have a great year and hopefully in the next conference coming up, Diane and team will share a lot more details.

Heather Bellini - Goldman Sachs & Co.

Thank you.

Operator

Thank you. And our next question comes from Eric Sheridan of UBS. Your line is now open.

Eric J. Sheridan - UBS Securities LLC

Thank you for taking the questions. Maybe first for Sundar. Now that you have this breadth of device ecosystem out there into the marketplace, wanted to know if we get a little bit more color around what your learnings are about the adoption of the device ecosystem, how you're thinking about the go-to-market strategy over the medium to long-term and how we might see sort of an evolution across operating systems? And if I can, maybe one for Ruth, you called out a one-time charge in – or one-time impact on the number in the quarter. I wanted to get a little more granularity about what went into that one-time expense so we could just sort of factor that into the financials. Thank you.

Sundar Pichai - Alphabet, Inc.

Hey, Eric. I'm assuming when you said the device ecosystem you're talking about how our platforms are working at scale. The thing which I get excited about is computing is increasingly moving rather than just one device which is a dedicated computing device to being there for users in their context and you'll see computing increasingly embedded in many things, and we have a comprehensive strategy. We do want – we invest in it for the long run. We're improving our computing experiences with machine learning. We expect to be there for users across a device ecosystem, and we're also building things like Google Play to work across all of this so that users can have one coherent experience. I think we see great momentum both across our partner ecosystem, as well as pushing the cutting edge of the experience which is what we strive to do with our own hardware devices. And so I think the end-to-end strategy is working well for us.

Ruth Porat - Alphabet, Inc.

And in terms of, you noted, the one-time item, there are really two that I'm actually going to call out. One was in cost of revenues, I noted that equipment costs were elevated by some one-time charges, and so there was some pressure there. And then the other item that I noted was with respect to our tax rate. I noted that there was slightly elevated tax rate this quarter. It's always affected by the geographic mix of results but we did have a discrete item that affected the U.S. tax rate to make that clear.

Operator

Thank you. And our next question comes from Mark Mahaney of RBC. Your line is now open.

Mark Mahaney - RBC Capital Markets LLC

Thanks. Two questions, please. Again, Ruth, on that \$320 million one-time charge, is there any more detail you can provide on that? It seems like a relatively sizable amount.

And then, Sundar, if you could talk a little bit about Voice Search, particularly in the home and in the car, and the importance of getting devices out in the marketplace? And the challenge I'll throw to you is, it looks to me like Google devices are being outsold ten-to-one or something like that in most – in a lot of homes, and it's immaterial now, but it could see in five years that there's is a new Voice Search interaction interface and it's not Google in the home. That could be a real challenge for the company. Thank you.

Ruth Porat - Alphabet, Inc.

So, on the first one trying to be helpful in giving you dimension and impact on cost of sales, but really not much more to add there. I think the other point is that you're thinking about the hardware business. It was gross margin positive. There were just some other variables in there.

Sundar Pichai - Alphabet, Inc.

And, Mark, on Voice Search, we are really excited about it. I think it's a very natural way for users to interact. We think it will be one mode. Users will have many different base by which they interact with computing. And for voice, as you pointed out, we expect voice to work across many different contexts. So we are thinking about it across phones, homes, TVs, cars, and trying to drive that ecosystem that way, and we want Google to be there for users when they need it. And even with Google Home, we just launched it in

Q4. We had a very strong quarter there, and we are going to invest a lot in it over 2017. It's very early days. When I look at what it would take to Voice Search well, our years of progress we have done in areas like natural language processing comes into play, and I think there's a lot of work ahead to make all of this work well for users. And this is the core area where we've invested in for the very long term, and so I feel very comfortable about how this will play out in the future.

Mark Mahaney - RBC Capital Markets LLC

Thank you.

Operator

Thank you. And our next question comes from Douglas Anmuth of JPMorgan. Your line is now open.

Douglas T. Anmuth - JPMorgan Securities LLC

Thanks for taking the question. Ruth, you commented on YouTube and addressed some of the non-advertising revenue streams. I was just hoping you could elaborate there a little bit what the goals would be there for your users.

And then just to follow up on Mark's question on Voice Search, I understand, Sundar, it's early, but how do you think about the challenges and opportunities from a monetization perspective in Voice? Thanks.

Ruth Porat - Alphabet, Inc.

So on the first question in terms of YouTube, Sundar elaborated on my opening comments. We're really pleased with the ongoing strength we have there. We talked about on prior calls. It's largely driven by Video, primarily TrueView with a strong contribution from DoubleClick Bid Manager, and we are continuing to invest significantly in the business given the importance of supporting the ecosystem of content creators through partner payments, marketing, YouTube Originals, YouTube Spaces. We're broadening the platform. We're investing in the requisite infrastructure given machines and bandwidth required, and Sundar elaborated on some of the upside we see there on the non-ad side.

And really the point I was trying to stress consistent with Sundar's comments is, we've got the non-ads momentum here on the YouTube side, and we're also seeing tremendous momentum with cloud, which we're excited about, and the hardware and investing behind those. So those

continue to build out the revenue streams as we're looking in the near to medium to long term.

Sundar Pichai - Alphabet, Inc.

And, Doug, I mean, just like Mark's question on Voice Search, I would encourage you to think about it as from a user standpoint, they are looking for information, looking to get things done. The voice queries are one part of the total journey they are on. So when we think about something like the Google Assistant, we think about it as an ongoing conversation with our users across different contexts. So they may ask a question on voice, later when they pick up their phone, they want continuity, so we think of this as an end-to-end thing. And all of this means users engage more with us, more with computing and look for more information, and I think the trends we see are positive. So we think about it from a long-term perspective, and so I see more opportunity than challenge when I think about Voice Search.

Douglas T. Anmuth - JPMorgan Securities LLC

Great. Thank you.

Operator

Thank you. And our next question comes from Peter Stabler of Wells Fargo Securities. Your line is now open.

Peter C. Stabler - Wells Fargo Securities LLC

Thanks very much. Another one on YouTube, if I could. Would it be possible to get any sort of metrics around YouTube Red and how the subscription business has been progressing, realizing you're not going to be providing that every quarter but that you do occasionally give us some sort of benchmarks in the market? Thanks so much.

Ruth Porat - Alphabet, Inc.

Well, at this point, we've launched in five countries. We're pleased with the early success and it's still early days, it takes a while to build a subscription business here. And I'll pass it to Sundar for additional commentary.

Sundar Pichai - Alphabet, Inc.

Look, I mean, I think – I would think about it as, we are investing a lot in developing this premium experience in a way of YouTube Brand, YouTube Music, and we do offer it across Google Play Music as well. You will see us invest more, more countries, more original content, and we'll bring together the experiences we have over the course of this year. So it's even more

compelling for users. But we are seeing tractions with the rate of signups. We're not disclosing specific numbers, but I'm excited at the progress there.

Peter C. Stabler - Wells Fargo Securities LLC

Thank you.

Operator

Thank you. And our next question comes from Brian Nowak of Morgan Stanley. Your line is now open.

Brian Nowak - Morgan Stanley & Co. LLC

Thanks for taking my questions. I have two. The first one, just to go back to YouTube, I appreciate the color around the content. I'd be curious to hear about how you think philosophically about partnering with more premium content players to maybe drive even higher engagement and an even better YouTube experience.

And then the second one, if you kind of step back in your Mobile Search business and the verticals, the innovation you've had at retail and travel with Shopping and Hotel Finder, I guess I'd be curious to hear about where you see the biggest potential for more improvements in certain verticals for an even more relevant and higher search result experience over the next years. Thanks.

Sundar Pichai - Alphabet, Inc.

On your first question, look, I mean, we think of YouTube again as an ecosystem. We are trying to connect creators with users, form a community. And so, we work hard to bring more premium content. We already work with TV networks and their individual shows, whether it's a late-night show like James Corden or Jimmy Fallon, afternoon shows like Ellen, sports programming like NBA and NFL. For example, sports is one of the most popular verticals. We have hundreds of sports partnership in place, and so we'll continue to invest that way and drive the premium content there.

On the second one, we do look at the end-to-end experience, look at what are the kinds of tasks which users are trying to get done. Mobile raises the bar if you want to provide those deeper experiences for users. And so, I generally think local is a big area. We have strong assets there with Maps, and so we think about how we can improve the local experience a lot more for users. So for example, within local areas like dining, we work closely with our partners to make that better. So we get it at a pretty granular level and

we try to hit all the areas. And so, I think you'll see progress in all these areas over the next few years.

Brian Nowak - Morgan Stanley & Co. LLC

Okay, great. Thanks.

Operator

Thank you. And our next question comes from Anthony DiClemente of Nomura. Your line is now open.

Anthony DiClemente, CFA - Nomura Instinet

Hi. Thanks for taking my questions. Yeah, just on YouTube, I'd love to hear about the pricing and then also about AdMob (44:47). So, is there anything you could highlight on ad format? And specifically, we noticed that recently you're enabling marketers to target YouTube ads based on search, and so I just want to hear about that strategy. And maybe relatedly, the recently announced non-skippable YouTube ads format. Would love to kind of hear about that. Thanks for taking my questions.

Sundar Pichai - Alphabet, Inc.

Look, overall, I would say there's been a – been very pleased with how the team has been driving innovation in ad formats and ad experiences. I think video advertising is in its very early days. We see whenever we (45:32) innovation phase, and advertiser response to all these new formats has been really positive. So for example a bumper ads are six second video format that we launched. It's already being used by thousands of accounts, including major brands like Universal Pictures and Netflix.

On your question around how we think about the experience across screens, it's really important to understand users consume YouTube across screens, and so they experience consistent experience. And similarly, from an advertising standpoint, we want that to be thoughtful for users, more relevant across screens as well. And so that's the context in which we do this. We give users control over that experience. But I do think as part of these changes, advertisers can get more detailed insights from their YouTube campaigns across devices so they can better understand the impact of their marketing campaigns. So I think it's early days, but I think it's the right direction, and I think we will see good traction from it.

Anthony DiClemente, CFA - Nomura Instinet

Thanks a lot.

Operator

Thank you. And our next question comes from Michael Nathanson of Moffett. Your line is now open.

Michael B. Nathanson - MoffettNathanson LLC

Thanks. I have two, one for Sundar and one for Ruth. Sundar, just picking on the YouTube questions, there was a report that YouTube and CBS had agreed on an agreement to distribute CBS on YouTube. Can you talk a bit if that has actually happened? And if so, what's the opportunity to partner with networks and how will that evolve over time?

Sundar Pichai - Alphabet, Inc.

Look, I can't comment on any specific discussions, but I said a little bit earlier we are constantly working with partners across these areas. We work very closely with TV networks on their individual shows. It's a big part of the YouTube experience. And so you will see us work hard to make these partnerships deeper and bring more content to our users. So maybe I'll leave it at that.

Michael B. Nathanson - MoffettNathanson LLC

Okay. And then for Ruth, you mentioned programmatic drove the network members' revenue growth this quarter. If you look at fourth quarter this year and last year, there seems to be an acceleration in Q4 and then it comes back. I wonder what's happening seasonally to that revenue line that drives fourth quarter up so much.

Ruth Porat - Alphabet, Inc.

Well, as we've talked about on prior calls, there are obviously a number of businesses within the network line, and a number of things went right this quarter. I wouldn't extrapolate from it. As you know, there can be some seasonality, and Q1 is typically lower than the fourth quarter.

I think the main point is that the programmatic business continues to be a strong contributor with significant growth reflecting the ongoing advertiser adoption just given the overall efficiency of programmatic and improved targeting and the benefit of inventory growth. And so the story, it's pretty much unchanged. We continue to see the growth in programmatic offset by declines in the more traditional businesses. And when you're looking at the quarter-over-quarter, we are continuing to see things like the impact of policy changes and timing of product launches. But I just think that there were a number of things that went well this quarter. Q3 was a bit lighter so

that's been flatter quarter-over-quarter comparison, but I wouldn't extrapolate from this.

Michael B. Nathanson - MoffettNathanson LLC

Okay. Thanks.

Operator

Thank you. And our next question comes from Lloyd Walmsley of Deutsche Bank. Your line is now open.

Lloyd Walmsley - Deutsche Bank Securities, Inc.

Thanks. Wondering, Sundar, if you can just give us a sense on the Pixel phone hardware opportunity to kind of build direct mobile distribution and capture hardware margin, and how you think about that versus the potential disruption that having your own handset at a bigger scale could cause in the Android ecosystem? Do you think this is something that could get meaningful market share without disrupting the ecosystem?

And then a second follow-up related to this would be on the Pixel phones with Google Assistant having been built uniquely into the core of the experience, is there anything you're learning as the usage of that increases? Is it driving a step-function, increasing engagement with the hardware/software integration? Thanks.

Sundar Pichai - Alphabet, Inc.

Look, I mean, we are in the early days. I think it's really important when you work on a platform you have to drive it forward as we've always done by putting out the state-of-the-art and I think it especially gets important in the vision we have for computing where users are going to use it across many different contexts. And so to do that end-to-end experience, it spans devices. So I think it's important for us to work at the intersection of hardware, software and services and so that's how we think about it. And I think we invest a lot more in our ecosystem and I mentioned earlier, I'm incredibly excited at the lineup we have for this year from our partners. So we do both and we are very thoughtful about it. I think the scale at which we are doing it shows it's working and I'm confident we'll be able to strike that balance well.

In terms of Google Assistant on the Pixel along with how search works, I think definitely it gives us a way to iterate and move faster and make sure it's working better for users. Our thesis is that as we make it easier for users to have Google at their fingertips across what they are doing and including

many modes whether they are typing or asking Google a question, we find that it overall benefits. And so it will be a long-term trend but I think our earlier studies (51:44) show that our intuition is right there and so we'll continue approaching it that way.

Lloyd Walmsley - Deutsche Bank Securities, Inc.

Thank you.

Operator

Thank you. And our next question comes from Stephen Ju of Credit Suisse. Your line is now open.

Stephen Ju - Credit Suisse Securities ([USA](#)) LLC (Broker)

Okay. Thank you. So, Sundar, you called out Google Play growth in emerging markets in your prepared remarks. So I thought from a revenue size standpoint it would be one of the big bets you would highlight but – so I'm wondering how you view your own Instant Apps as well as the products or their operators to let consumers try apps either in a messenger product or on an HTML5 environment? Do these innovations present an opportunity or a challenge for you at the Play franchise?

And secondarily, it seems that the recurring theme in your prepared remarks is how AI is making the consumer products better. Is there anything you can share with us as to how it may be making monetization better? Thank you.

Sundar Pichai - Alphabet, Inc.

So, on Google Play, for me what makes it work well is just with the vision of computing we have been talking about how it works across contexts. You need an ecosystem. You need an apps and services ecosystem to work cohesively across all of this and that's what I like about how we are approaching Google Play and you saw us this quarter – see Google Play work beyond Android phones. They're coming to Chromebooks. They work in Daydream, they work in Android Wear and so it's an end-to-end thing which works well. And that's the most important thing so that as a user, you know whether you're engaging with a game or a TV show that you can reliably get it across your computing experiences. And we'll adapt and I think we will drive innovation simply to go where what's right for users and developers and so be it Instant Apps or driving better HTML5 experiences. We invest in all that and I think we'll move it all forward.

On your second question about how machine learning and AI is improving our monetization, it definitely, I mean, just like we had many, many

launches last year which involve machine learning being incorporated across Google including our monetization products. Our monetization teams at Google have always been at the cutting edge of what I would call as machine learning techniques from early days on. And so they are doing it. It is early days now but I think we already have really new insights and so we'll bake it in over the course of the year.

Stephen Ju - Credit Suisse Securities ([USA](#)) LLC (Broker)

Thank you.

Operator

Thank you. And our next question comes from Ken Sena of Evercore. Your line is now open.

Kenneth Sena - Evercore ISI

Hi. Just maybe another question on YouTube. Can you expound a decision this quarter to remove third-party cookie and Pixel activity? It looks as though you're favoring something much more identity-based and maybe you could just think through the – or explain a bit about the impetus there and maybe the trade-offs for marketers, that would be great. Thank you very much.

Sundar Pichai - Alphabet, Inc.

I spoke about it a bit earlier, but I think it's important that we evolve all of this from a user-centric standpoint, and users have an identity, they have preferences. And so for example, think about it from a user standpoint. If they don't like one particular ad or they don't want to see an ad from a particular advertiser. They want it to work across their experience, across their cross-device experience. So we think about it that way, and so we are working towards a long-term experience that's right for users and which I think will make sense for advertisers reaching users too. So I think we are evolving it jointly and thoughtfully, giving users control. And I think that's the right way to approach it over time.

Kenneth Sena - Evercore ISI

Okay. Thank you very much.

Operator

Thank you. And our final question comes from the line of Justin Post of Merrill Lynch. Your line is now open.

Justin Post - Bank of America Merrill Lynch

Thank you. I'd like to ask first a question about ad coverage and click rates. Maybe just your thoughts on potential to increase ad coverage now that you have a fourth link. Is there still room to help ad clicks with coverage increases? And just as you think out to this year, how do you feel about the innovation pipeline in ads? Do you think there's a lot more you can still do in Search?

And then two, housekeeping for you, Ruth. Maybe you could just let us know what kind of equipment was written off so we can think about how recurring that might be, and any comment on the buyback activity in the quarter? Thank you.

Sundar Pichai - Alphabet, Inc.

On our monetization efforts, our teams always have been very thoughtful about planning not just for the short-term but planning for the long-term. We don't start the year thinking our plan is to increase ad coverage or something like that, right? We have many experiments in the pipeline. We see how user behavior is evolving and in conjunction with that, we evolve our ad experience. So for example, as people use mobile, scroll more, it's to track the user behavior changes, and we adapt to that in a very, very disciplined way.

So last year, you saw us maybe increase coverage in a certain way. For example, in desktop, we removed ads on the right-hand side, and so we take a very holistic approach to these things. For me, I do think we have a lot of headroom ahead. I still look at where most of transactions happen and how that secular transformation is underway, and so I think we see we have a lot more headroom left. And Ruth, I'll pass...

Ruth Porat - Alphabet, Inc.

And – yeah, in terms of your second question, really not much more to add on the first part. In terms of the buyback, we weren't able to commence it in the fourth quarter due to trading restrictions but we do look forward to getting back into the market.

Justin Post - Bank of America Merrill Lynch

Thank you.