

This transcript is provided for the convenience of investors only, for a full recording please see the [Q2 2021 Earnings Call webcast](#).

Alphabet Q2 2021 Earnings Call
July 27, 2021

Operator: Welcome everyone. Thank you for standing by for the Alphabet second quarter 2021 earnings conference call. At this time, all participants are in a listen-only mode. After the speaker's presentation, there will be a question-and-answer session. To ask a question during the session, you will need to press star one on your telephone. If you require any further assistance, please press star zero. I would now like to hand the conference over to your speaker today, Jim Friedland, Director of Investor Relations. Please go ahead.

Jim Friedland, Director Investor Relations: Thank you. Good afternoon, everyone, and welcome to Alphabet's second-quarter 2021 earnings conference call. With us today are Sundar Pichai, Philipp Schindler and Ruth Porat. Now I'll quickly cover the Safe Harbor. Some of the statements that we make today regarding our business, operations, and financial performance, including the effect of the COVID-19 pandemic on those areas, may be considered forward-looking, and such 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 most recent Form 10-K filed with the SEC. During this call, we will present both GAAP and non-GAAP financial measures. A reconciliation of non-GAAP to GAAP measures is included in today's earnings press release, which is distributed and available to the public through our Investor Relations website located at [abc.xyz/investor](#). And now I'll turn the call over to Sundar.

Sundar Pichai, CEO Alphabet and Google: Thank you, Jim, and good afternoon, everyone. It's good to be with you. Today, I'll give an overview of the quarter, going through some of our product momentum, then touching on Cloud and YouTube. First, I want to acknowledge that the new COVID-19 variants have been challenging for so many communities across the world. As the pandemic evolves, we want to help people get the information they need to keep themselves and their families safe. I really encourage everyone to get the vaccine when it's available to you.

Turning to the quarter, we saw a rising tide of online consumer and business activity. We're proud that our services helped so many businesses and partners. In fact, we set a number of records this quarter. This quarter, publisher partners earned more than they ever have from our network. We also paid more to YouTube creators and partners than in any quarter in our history. And on top of that, over the past year, we have sent more traffic to third party websites than any year prior, in addition to generating billions of direct connections - like phone calls, directions, ordering food and making reservations - that drove customers and revenue to businesses around the world that are working to get back on their feet.

A few years ago, we placed a bet on AI, believing that it would be a fundamental technology that would underpin and dramatically improve all our products. That vision was on full display at our I/O event in May, where we announced new advancements that will be helpful to people and businesses everywhere.

As one example, we introduced Multitask Unified Models – or MUM. MUM is a big advancement in Search, a thousand times more powerful than our current systems. It has the ability to learn and transfer knowledge across 75 languages, which means that it can learn from sources in one language, and help bring that information to you in another. We also announced a new AI system called LaMDA that achieves a new level of natural conversation capabilities. We think LaMDA will help make information and computing more accessible, and we're excited about this early-stage research. And last week, DeepMind shared its new AlphaFold protein structure database, which doubled the number of high-accuracy human protein structures available to researchers. In the coming months it will include almost every sequenced protein known to science.

Turning to Android, we previewed Android 12 at Google I/O. The latest version will include new ways to personalize devices, and significantly improved speed and power efficiency. We've built new privacy protections directly into the OS – such as the new Privacy Dashboard – to help people keep information safe and private. Android 12 will of course be central to Google's own devices. I'm very excited by our Fall lineup, which will showcase Android 12, and some of the deep technology investments that are helping us push boundaries.

Pixel remains at the heart of that long-term strategy, and I'm proud of how the team continues to deliver the best of Google through our family of helpful devices, including Nest and Fitbit. You can see all of these devices at our first retail store in New York City and I'm looking forward to seeing some new ones there soon. We are also seeing developers getting tremendous benefit from Google Play. Through the end of Q2, over \$120 billion has been earned cumulatively by developers around the world from Google Play.

Let me talk a bit more about Cloud. Q2 revenue grew 54% year-over-year. Our innovative products, focused Go-to-Market strategy, and growing ecosystem are driving our momentum. Organizations across industries are choosing Google Cloud as their platform for digital transformation, including SAP customers like PayPal, Johnson Controls, and Whirlpool, who have deployed SAP environments on Google Cloud.

This quarter, we saw three distinct trends. First, the increase in cyber and ransomware attacks is a wake-up call for the industry. Over two decades, Google has built some of the most secure computing systems in the world, and we're proud that our Google Cloud customers can benefit from our experience here. Customers like Major League Baseball are partnering with Google Cloud to further enhance their security program.

We pioneered the “zero trust” approach, an architecture that builds in multiple layers of defense against unauthorized access. This approach, and other security solutions, help customers minimize the impact of cyber attacks, and prevent them completely. At our Cloud Security Summit last week, we announced new solutions across our portfolio of products. BT is bringing our new Security Operations solution, based on Chronicle, to the managed security services market, and Adobe and the state of Wisconsin are helping protect users with our fraud detection product.

Second, our expertise in real-time data and analytics continues to differentiate us in the Data Cloud, one of the fastest growing segments of the market. BigQuery is not only a data warehouse, it's a platform for customer innovation. And it is helping drive our strong

year-over-year growth, with customers like HCA Healthcare, who will be using BigQuery to analyze data to improve clinical care. Additionally, our deep expertise in AI and machine learning remains a key differentiator, winning customers like Groupe Casino and leading to partnerships with industrial automation leaders like Siemens.

Our focus on delivering industry specific solutions, coupled with our secure, open cloud infrastructure enable us to support leading telecommunications companies such as Reliance Jio, Telecom Italia TIM, and Ericsson, to work together on applications and new solutions for 5G networks and Mobile Edge Computing. These join existing customers Vodafone, Telus and many others.

Third, Google Workspace continues to show strong growth, particularly in the enterprise space, because we have designed the product to meet the challenges of hybrid work. This includes the announcements we made at I/O about Smart Canvas, as well as expanding our advanced security and compliance capabilities and solutions for front line workers. These innovations are landing wins with companies like Carvana, the online auto retailer, and software company, Red Hat.

Turning next to YouTube. YouTube Shorts continues to gain momentum. We've been rolling it out everywhere YouTube is available, in more than 100 countries worldwide. I'm proud to announce that YouTube Shorts has just surpassed 15 billion daily views. I'm also pleased with the progress we're making with YouTube's subscription products across Music, Premium and YouTube TV, each delivering a fantastic experience and content for viewers.

And finally, Waymo continues to build and commercialize the Waymo Driver and grow the team. People love the fully autonomous ride hailing service in Phoenix. Since first launching its services to the public in October 2020, Waymo has safely served tens of thousands of rides without a human driver in the vehicle, and we look forward to many more.

Before I close, let me call out our continued work on sustainability, which has been a core value for us since our founding. As you'll recall, we were the first to announce an ambitious goal that will be transformative for the industry: we aim to operate on 24/7 carbon-free energy by 2030. In Q2 we announced that five of our data centers are already operating at or near 90% carbon-free energy. To help us reach our target everywhere, we implemented a system to shift flexible computing tasks to different times and places with greater availability of carbon-free energy, and we're working to enable geothermal power in more places, starting in Nevada next year.

I want to thank all our employees around the world for their contributions to a great quarter. I know it's been a challenging 18 months. Through it all, taking care of everyone in our workforce has remained a top priority. Now, we're reimagining the future of work, with flexibility as a guiding principle. I was excited to see so many people in person as we started a voluntary return to our California offices recently. As we make our way back, we're giving employees more flexibility in how and where they work, and we'll continue to invest in our sites in the US and elsewhere. Over to Philipp.

Philipp Schindler, SVP and CBO, Google: Thanks, Sundar, and hello everyone, it's great to be with you today. We're pleased with the growth in Google Services revenues in the second quarter. Year-on-year performance reflects elevated consumer online activity, broad-based

strength in advertiser spend, and the lapping of the first-ever revenue decline in our Ads business last year due to COVID. In the second quarter, retail again was by far the largest contributor to the year-on-year growth of our Ads business. Travel, financial services, and media and entertainment were also strong contributors. Let's now take a few minutes to talk about the trends we've seen across our business.

Over the last 18 months, we've been deeply focused on helping businesses, big and small, navigate profound change. First as a lifeline during the pandemic – and now as a partner to re-accelerate growth as the world begins to reopen. The road to global recovery is likely to be uneven and unpredictable. That's why the real-time insights we put in the hands of businesses going into the pandemic will be just as important coming out of it. New tools, like Travel Insights – which launched in the US this month after rolling out to select countries in APAC and EMEA in December – are helping our partners get a clearer picture of where demand is coming from.

Wyndham Hotels & Resorts, for example, is leaning into insights and automation across Search, Display and YouTube to meet travelers, wherever and whenever, they need a hotel. They drove nearly two times more direct bookings from media deployed on Google in the first half of 2021 vs. the year prior. Or take Amtrak. COVID hit, ridership plummeted, budgets were cut. Uncertainty ensued on how to efficiently reach essential travelers. So we stepped in with insights and automation. Bookings for their last quarter, which was Q2, increased 3X year-over-year with Cost Per Acquisition down 52%.

These examples also underscore the value of AI and automation in a world that's changing fast. We know today that more than 80% of our advertisers use automated bidding. Using ML, our ads products are more efficiently connecting businesses with their customers – taking the guesswork out of getting the right message, at the right time, to the right customers – all in a privacy-first way. And Performance Max, our newest AI-powered campaign, is now in beta. It lets brands buy ads from a single campaign across all Google properties – helping drive more online sales, more leads and/or more Store Visits. Early results for participating advertisers are great.

Moving onto Retail, where momentum remains strong. We're continuing to build an open ecosystem that benefits both users and merchants. Last year we removed financial barriers with free product listings and zero commission fees. This year we're removing integration barriers. With Shopify, WooCommerce, GoDaddy and Square, merchants can now onboard and show their products across Google for free. And our Shopping Graph is using AI to connect these products to the people who want them, with over 24 billion listings from millions of merchants across the web.

Let's talk omnichannel. Last quarter I said it was here to stay – and it is. Retailers continue to build their digital presence to drive both online and offline sales – and we're helping them do it. Take Bed Bath & Beyond who quickly pivoted to curbside pickup, pick-up-in-store, and same-day delivery when people were stuck at home. They've continued these offerings across Google with impressive success. Omni and digital shoppers now make up 50% of customers, and in Q1, a third of total digital sales were fulfilled by stores. Plus they've tapped YouTube to build awareness for their new customer-inspired Owned-brands. We'll continue to invest in new ways to help retailers through what is likely to be a long and uncertain recovery around the world.

Let's move to YouTube, which had a great quarter with strong growth in both brand and direct response. We're seeing three key trends. First, brand. YouTube is helping advertisers reach audiences they can't find anywhere else. According to Nielsen's Total Ad Ratings Reach reporting, from Q4 '18 to Q4 '20, on average, 70% of YouTube's reach was delivered to an audience not reached by the advertiser's TV media. In other words, YouTube's reach is becoming increasingly incremental to TV, and this audience dynamic is a huge win for brands.

In fact, Nielsen found that US advertisers who shifted just 20% of spend from TV to YouTube generated a 25% increase to their total campaign reach within their target audience, while lowering their cost per reach point by almost 20%. These combined effects of improved reach and efficiency are helping advertisers get the most out of their brand investments.

Second, direct response. Advertisers are turning to the platform to generate demand and drive transactions. Like Malaysian edtech platform Mindvalley, which focuses on personal growth and learning, increased their investment in TrueView for Action, and now Video Action, as people turned to YouTube in record numbers to learn. In Q2, this generated 600,000+ leads – with 20% coming from the U.S.

Third, YouTube is uniquely positioned to drive both massive reach and action. We're seeing more advertisers adopt a full funnel approach to scale their businesses with increased efficiency. Compara, a financial services market leader in Chile, combined a reach and direct response campaign to capitalize on leads. Over 10 weeks, they reached 5 million users with incremental conversions up 70%. This trend is widely embraced by our largest advertisers where businesses are breaking down silos between online and offline.

Since our founding, we've always believed that the future of Google and the future of our partners are intrinsically linked. From individual YouTube creators and major music labels, to global and local online publishers, to Play developers big and small – our business is built on revenue share models that succeed only when our partners succeed.

One excellent example of how we're helping our partners innovate is our work with the telecom industry. Sundar talked about efforts in Cloud to help them build more efficient networks and transition to 5G. We're also working across Google to help carriers – including AT&T, Telstra, T-Mobile, and Verizon – launch new devices and services, add new subscribers, rethink customer engagement via business messaging partnerships, and support enterprise growth.

I want to close with two huge “thank you's.” First to our customers and partners for their collaboration. Second to our product, partnership, sales and many support teams for their extraordinary work this quarter and dedication to our customers' and partners' success. Now, over to Ruth.

Ruth Porat, CFO Alphabet and Google: Thank you, Philipp. Our strong revenue performance in the second quarter reflects lapping the impact of COVID on our business, elevated consumer online activity, broad-based strength in advertiser spend, as well as the benefit of excellent ongoing execution by our teams. My comments will be on year-over-year comparisons for the second quarter, unless I state otherwise. We will start with results at the Alphabet level, followed by segment results, and conclude with our outlook.

For the second quarter, our Consolidated Revenues were \$61.9 billion, up 62%, or up 57% in constant currency. Our total cost of revenues was \$26.2 billion, up 41%, primarily driven by growth in TAC, which was \$10.9 billion, up 63%, followed by growth in Other Cost of Revenues, which was \$15.3 billion, up 29%, the largest driver of which was content acquisition costs.

Operating expenses were \$16.3 billion, up 22%. In terms of the three component parts of opex, first, the increase in R&D expenses was driven primarily by headcount growth. Second, the growth in Sales & Marketing expenses was due primarily to the ramp-up of spending on ads and promo, in contrast to the pullback in the second quarter last year. Finally, the increase in G&A reflects the impact of charges relating to legal matters. Headcount was up 4,061 from the first quarter. Operating income was \$19.4 billion, up 203% and our operating margin in the quarter was 31%. Other Income and Expense was \$2.6 billion, which primarily reflects unrealized gains in the value of investments in equity securities. Net income was \$18.5 billion.

Let me now turn to our segment financial results. Starting with our Google Services segment, Total Google Services Revenues were \$57.1 billion, up 63%. Google search and other advertising revenues of \$35.8 billion in the quarter, were up 68%, with broad-based strength across our business, led again by strong growth in retail. YouTube advertising revenues of \$7.0 billion, were up 84%, driven by brand, followed by direct response. Network advertising revenues of \$7.6 billion, were up 60%, driven by Ad Manager and AdMob.

Other Revenues were \$6.6 billion, up 29%, primarily driven by growth in YouTube non-advertising revenues, followed by Hardware, which benefited from the addition of Fitbit revenues, and finally Google Play, which lapped the increased level of user engagement that started in Q1 last year due to the pandemic. Google Services Operating income was \$22.3 billion, up 134%, and the operating margin was 39%.

Turning to the Google Cloud segment, revenues were \$4.6 billion for the second quarter, up 54%. GCP's revenue growth was again above Cloud overall, reflecting significant growth in both infrastructure and platform services. Once again, strong growth in Google Workspace revenues was driven by robust growth in both seats and average revenue per seat. Google Cloud had an Operating Loss of \$591 million. As to our Other Bets, in the first *[sic]* [second] quarter, revenues were \$192 million. The operating loss was \$1.4 billion.

Let me close with some comments on our outlook. In the second quarter, revenues benefited from an FX tailwind of more than 4% at the consolidated level. Based on FX spot rates against the dollar relative to the third quarter of last year, we expect a more muted tailwind to revenues in the third quarter.

In terms of outlook by segment, for Google Services, the benefit to revenue growth in Q2 from lapping the effect of COVID last year will diminish through the balance of the year as we begin to lap stronger performance in the second half of 2020. In the second quarter, we continued to benefit from elevated consumer online activity and broad-based strength in advertiser spend. We believe it is still too early to forecast the longer-term trends as markets reopen, especially given the recent increase in COVID cases globally.

Within Other Revenues, Play revenue growth for the balance of the year will face headwinds due to the impact of lapping elevated engagement in the pandemic as well as the change in fee structure which was implemented as of July 1. We continue to invest across Google Services to support the extraordinary opportunities we see. A couple of reminders, consistent with prior years. We expect that headcount additions will be seasonally higher in Q3, as we bring on new graduates. In addition, we expect Sales and Marketing expenses to be more heavily weighted to the back half of the year in part to support product launches and the holiday season.

As for Google Cloud, we remain focused on revenue growth, and are pleased with the trends we are seeing. Across Cloud, we will continue to invest aggressively given the opportunity we see.

Turning to CapEx, the results in the second quarter primarily reflect ongoing investment in our technical infrastructure, most notably in servers, to support ongoing growth across Google. We also began to increase the pace of investment in ground-up construction and fit-outs of office facilities, which were slowed due to COVID and are focused now on advancing these projects.

Turning to cash and capital allocation, we continue *[sic]* [continued] to generate strong Free Cash Flow of \$16.4 billion in the quarter and \$58.5 billion for the trailing twelve months. We ended the second quarter with \$136 billion in cash and marketable securities. As we indicated in our press release today, our Board has approved an amendment to the existing \$50 billion stock repurchase program permitting us to repurchase both Class A and Class C shares, in a manner that's in the best interest of the company and its stockholders. Thank you. And now Sundar, Philipp and I will take your questions.

Operator: Thank you. As a reminder, to ask a question, you'll need to press star one on your telephone. To withdraw your question, press the pound key. To prevent any background noise, we ask that you please mute your line once your question has been stated. And our first question comes from Brian Nowak, with Morgan Stanley. Your line is open.

Brian Nowak, Morgan Stanley: Thanks for taking my question. I have two. One for Sundar. One for Philipp. Sundar, the first one is, you've had so much innovation over the years using AI to improve Search and improve the overall business. Can you just give us some examples of where you still see low-hanging fruit or areas for further improvement in the company's overall products, using AI, et cetera, over the next couple years? And then, Philipp, your comments on omnichannel were pretty loud and clear. Give us some examples of where you're most focused to continue to enable more retailers to move in the omnichannel and sort of drive that side of the business. Thanks.

Sundar Pichai, CEO Alphabet and Google: Brian, thanks. A couple – we see so much headroom, given our bet on AI. Going to our most important product of all, Search, when you see the launch of BERT, which was a significant improvement, and we are following that up with MUM, which is another extraordinary advance. So the rate information is growing – pretty rapidly, and so constantly developing better models to improve our search quality ranking, et cetera, is one of the most important ways we invest. Beyond that, I would say all the work we are doing into making sure computers can understand in a multimodal way, be it images, audio, text, video, and then bringing it up across our products I think is an important way we'll approach it. Philipp?

Philipp Schindler, SVP and CBO, Google: Yes. And to my part of the question, look, we want to make sure that when people come to Google, they are able to basically find the best product and prices available from, frankly, the widest possible range of merchants. And we're making strong progress under Bill's leadership. And as I said earlier, 2020 was about removing financial barriers. We made listings free. We removed commission fees. And it's worth pointing out the upside of combining free listings with Shopping Ads, actually. Merchants that used both in Q1 saw a 50% lift in clicks once they started. I think that's pretty impressive. 2021, as I said, has been about removing integration barriers. We have the partnerships with Shopify, Square, BigCommerce, GoDaddy, WooCommerce and so on. And they're making it easier for businesses to get started with us, whether it's across Search and Shopping and Image Search and YouTube.

And then once merchants are onboarded, I mean, there's so much more value we can offer them. We launched a new measurement tool to help retailers better understand performance and pricing. You asked specifically a question about focus areas. And then we're making the product and user experience better, not only with our UI/UX research/feedback, with our tech and AI capabilities. And a maybe cool example is how we're using AR to bring in-store experiences online, like with auto dealerships, and letting users really try before they buy. And we do this in cosmetics and in apparel categories. And we have the Shopping Graph, which I mentioned earlier. And we think it will open up completely new product experiences across Google. Shopping with Lens is one example. You can shop your screenshots or use your phone camera to find the dress or pair of sneakers that caught your eye or whatever. And we're working hard to build an open retail ecosystem. And that really levels the playing field for all merchants. And we think there's a lot of opportunity ahead. And I think those are our biggest areas of focus.

Brian Nowak, Morgan Stanley: Great. Thank you, both.

Operator: Thank you. Our next question comes from Doug Anmuth, with JP Morgan. Your line is open.

Doug Anmuth, JP Morgan: Great. Thanks for taking the question. I have two. First, just I think a key initiative over the last couple years has been to bring the full breadth of Google services to customers. So I was hoping you could talk more just about when you think about the Search and overall ads recovery and then also growth in Google Cloud, how those efforts are going, as you work across businesses with corporate customers and what their reception has been. And then, Ruth, just on cost – kind of in the back half and going forward, as you think about bringing some of these costs back, just curious if you can comment more around some of the puts and takes as you think about the overall cost structure pre-COVID versus post-COVID. Thanks.

Sundar Pichai, CEO Alphabet and Google: Thanks, Doug. I would say, overall, as you realize, it's a broad digital shift. Customers are looking for digital transformation. And depending on the sector they are in, they look to Alphabet as a digital partner. And we try to bring the broadest solution set that's possible across our capabilities. And that's been working well.

You mentioned Cloud. Most of our Cloud customers are either in conversations with us – it could be because they're concerned about security on their supply chain or they are trying to

understand the shift to digital and, invest more in data analytics, or the shift to a hybrid workforce is what's probably getting them to think about Workspace and so on. And if they are retailers, we can bring in our expertise across Ads, the work we are doing on commerce to be – with the partnerships we have, and so we can bring those additional expertise to bear.

And so that's a trend we are seeing across – Philipp gave examples of our telco partnerships. And so across our priority verticals, we are able to engage in a broad way. And maybe the recent Google-wide partnership with Univision was another example of a multi-year, multi-product partnership with companies.

Ruth Porat, CFO Alphabet and Google: And with respect to the second question, how we think about investments in the back half, really, the driving focus is how do we support near-term, long-term quality growth. And I think it's important to note that some of our costs are less variable in the short term, such as depreciation and the operations cost of our data centers. So when you look at Q2 performance, in part, the meaningful year-on-year improvement in the operating margin in the second quarter clearly reflects the strong revenue growth but also the fact that some of these costs are less variable in the short term.

However, to support long-term growth, and very much to your question, it's true across both Google Services and Google Cloud we will continue to increase the pace of investment. And that's true in headcount, it's true with compute, sales and marketing, really across the board. And you also heard that in some of my comments about CapEx. We're continuing to pick up the pace of investment in office facilities. Both fit-outs and ground-up construction had been slowed as a result of COVID, and we're pleased that the pace has picked up. And that really relates to our comments about continuing to build out across the U.S., around the globe, in line with continuing to invest in headcount growth.

I'd make one other point, which is – I think you're aware of this – but in this quarter, the results also reflect the benefit from the change in useful lives that we talked about earlier in the year that reduced depreciation expense. It's a benefit of about \$721 million in the quarter. And the benefit from this change will be lower in the second half as you're looking ahead.

Doug Anmuth, JP Morgan: Great. Thank you, Sundar and Ruth.

Operator: Thank you. Our next question comes from Justin Post, with Bank of America. Your line is open.

Justin Post, Bank of America Merrill Lynch: Great. Thanks for taking my questions, a couple. When you look at Search in the quarter, it really accelerated beyond the comp. And if you look at it quarter-over-quarter, it was really good. So wondering if there's any products or verticals that really surprised you or things to call out. And how do you think about the sustainability here, specifically in Search and the product pipeline from here? And then, secondly, on Cloud, really saw a nice margin improvement there. How do you feel about where you are on the infrastructure side and ability to really continue to show kind of that improvement in margins over time? Thank you.

Sundar Pichai, CEO Alphabet and Google: You know, two questions. Maybe I'll take the second first. On the Cloud side, first of all, we do – in the investments in our infrastructure, first

of all, we are doing it across the set of Cloud services we are building for Google. And it's the same that we bring to Cloud. And so there's tremendous synergies we have there. And maybe to give you an example of it, I earlier mentioned data analytics and processing. It's the same infrastructure, be it BigQuery, et cetera, which we have invested in and built over time. And people are looking to use data analytics alongside with machine learning and AI. They want to do this across structured and unstructured data, do it across any platform. And so that's the kind of capability we are able to bring. And overall, I'll let Ruth comment on maybe the margin side of this a bit more. Ruth?

Ruth Porat, CFO Alphabet and Google: Yes. I would just build on Sundar's comment. There's really no change in our approach to building the Cloud business. We do intend to continue to invest meaningfully. We are very pleased with the business, as we both said. As an example, we're continuing to build out the global footprint, continuing to invest in our compute capacity globally. As an example, we most recently announced a second Cloud region in India. This is our 26th Cloud data center region globally. And so continuing to invest across the board, given the opportunity that we see. And as I said last quarter, I would not extrapolate from quarter to quarter, given we still are in the early stages of building the business and we do intend to continue to invest aggressively, including expanding our go-to-market organization, our channel expansion, our product offerings and our compute capacity. Excited about what we're seeing the team executing upon here.

Sundar Pichai, CEO Alphabet and Google: On Search, to answer the first part of your.

Philipp Schindler, SVP and CBO, Google: Yes, can you hear me?

Sundar Pichai, CEO Alphabet and Google: Yes.

Philipp Schindler, SVP and CBO, Google: Yes, and to the first part of the question, similar to what I said in my remarks at the beginning, retail was, again, by far, the largest contributor to the year-on-year growth of our Ads business. Travel, financial services, media and entertainment were also very, very strong contributors.

Justin Post, Bank of America Merrill Lynch: Thank you.

Operator: Thank you. Our next question comes from Colin Sebastian, with Baird. Your line is open.

Colin Sebastian, Baird: Great. Thanks for taking my questions. First, Sundar, as a follow-up on Cloud, you talked about the tailwinds from advanced AI and data analytics in terms of growth. Is it fair to say as well, based on your initial comments, that security also represents a competitive differentiation that's contributing incrementally to business development? And then for Philipp, on the momentum in YouTube and capturing the shift in viewership and advertising away from linear TV, how do the different Google services fit together in that? Not just core YouTube, but Android TV, Google TV, YouTube TV. Is this something that's been increasingly connected or linked in the back-end and as well as in the front-end for consumers? Thanks.

Sundar Pichai, CEO Alphabet and Google: On security and Cloud, we have – definitely see it as a strong differentiation. Obviously, Google, for a long time, we are cloud native. We've

pioneered approaches like "zero trust", built the architecture out from a security-first perspective. And so particularly over the course of the last couple of years, as companies have really – with the recent attacks, they've really started thinking deeply about the vulnerabilities. Supply chain security has been a major source of concern just particularly over the past few quarters. Cyber threats increasingly is in the mind of not just CIOs, but CEOs across our partners. And so it's definitely an area where we are seeing a lot of conversations, a lot of interest. It's our strongest product portfolio, and we are continuing to enhance our solutions, be it integrating Chronicle, BeyondCorp and all the product components we have there. So a definite source of strength, and you will continue to see us invest here.

Philipp Schindler, SVP and CBO, Google: And on the second part of your question, look, momentum is really strong across both our brand and direct response business on YouTube. Maybe let me start on the brand side. The global shift to online video and streaming continues, with over, like, 2 billion monthly active users now, a billion-plus hours of video watched every day. I think we're at the forefront of this shift. And advertisers have increasingly needed to look beyond linear TV alternatives to achieve their reach and awareness goals. And as I said earlier, Nielsen Total Ad Ratings Reach reporting found, on average, 70% of YouTube's reach was delivered to an audience not reached by the advertisers' TV media. So not only are we driving improved reach, but we're also helping brands do it more efficiently. And as a result of this, you see many advertisers reevaluating their media mix and increasing their investments in our platform – in our platforms.

And as far as the direct response part goes, we're helping advertisers convert intent into action. We try to drive performance at an incredible scale. Take an example like with video action campaigns, which is our next-generation TrueView for Action format, advertisers were getting access to even more inventory across YouTube and our partners, all in a single automated campaign. And as I said before, we're working really hard to make YouTube not only more actionable but also more shoppable. So YouTube is proving to be meaningful for not just brand-building and reaching a massive audience but also for converting viewers into buyers. And what's nice is that we're seeing more advertisers leveraging brand to create demand and direct response to convert it. So they're basically using the full funnel very, very smartly.

And then to the second part of your second question, YouTube TV ads, for example, this part, we're really trying to bring the – well, Connected TV is – let me phrase it from the Connected TV part. I think that's easier. It is really the fastest-growing consumer surface that we have, and that growth started before the pandemic and has, frankly, solidified since. And in the U.S., we have over 120 million people watch YouTube on TVs every month. And that's up from, like, 100 million last year. We're number one in reach and watch time among ad-supported streaming services. So we're very, very happy with the development that we're seeing here.

Operator: Thank you. Our next question comes from Brent Thill with Jefferies. Your line is open.

Brent Thill, Jefferies: Thanks. Just to follow-up on YouTube. Can you maybe talk to the ecommerce opportunity that you're seeing evolve? Where are you at now and eventually where you would like to be? Thank you.

Sundar Pichai, CEO Alphabet and Google: On YouTube, look, I mean, if you look at the

engagement across the platform, we definitely see a lot of headroom for ecommerce. Over the past year, you've seen us really focus on accelerating, a shift to – in terms of onboarding merchants across – across Google. So we have definitely invested both in terms of bringing merchants on board, removing barriers there, providing better integrations by partnering with players, platform providers, across the industry. And now we are investing in our consumer experiences, be it on Google Search or on YouTube. And so you will see us roll out features over time. Philipp, do you want to add more here?

Philipp Schindler, SVP and CBO, Google: Yes, look, there's a ton of commercial intent across YouTube. And it was a shopping destination before COVID. I mean, think unboxing videos, product reviews, makeup tutorials, and so on. And throughout the pandemic we've really seen more shoppers turn to the platform for ideas, inspiration and really help them decide what to buy. And a number of shopping capabilities are already under way, and we're working really hard to make it easier for users to discover and buy directly on YouTube. And I mentioned how merchants can globally add their product feeds now right into video action campaigns. And brands and shoppers alike are loving it. And we've also begun beta testing this, for example, with Discovery Ads. And, yes, last quarter I mentioned how viewers can make purchases from their favorite creators, via early experiments with Brand Connect and shoppable product shelves. And early adopters are seeing a lot of success here. So stay tuned for more updates later this year.

Brent Thill, Jefferies: Great. Thank you.

Operator: Thank you. Our next question comes from Mark Mahaney with Evercore ISI. Your line is open.

Mark Mahaney, Evercore ISI: Thanks. We've had record new-business formation in the U.S. and I think globally in the wake of COVID. And my guess is that that's also been a major driver of growth for you. Could you just talk about that a little bit, to the extent to which you think some of these – especially the advertising trends come from these new businesses that are formed, whether they're digital, hybrid, or whatever? And then, secondly, how do you go from tens of thousands of Waymo rides to millions of rides? Like, what are the biggest obstacles to that? Any clue at all as to how long that takes? Are the issues more regulatory? More technical? Thank you.

Philipp Schindler, SVP and CBO, Google: Look, new businesses, small businesses are the backbone of our economy here. But obviously local communities are in varying stages of recovery. Some are re-opening while others are, unfortunately, returning to lockdown. And we're focused on continuing to, I would say, level the playing field for SMBs here, and from getting them online and, frankly, set up for success to giving them all the digital tools they need to get discovered and be ready for what's ahead. This includes the ability to, like, seamlessly transition between online and offline and reach customers nearby. Far beyond their local neighborhoods as well.

So over the past few months, I mean literally just the past few months, we've made it easier for SMBs to show their products across Google for free, and we added new ways for them to highlight in-store inventory through local inventory ads. And we've also made it easier for them to leverage the power of YouTube. They now can create video ad campaigns literally within

minutes via their smartphone. And these are just a few examples of the ways we're helping.

Plus, also an interesting trend, people are more eager than ever to support their local small businesses. Searches for "support local business" are up like 20x last year in the U.S. alone. And this is creating a lot of opportunity for SMBs overall. And I don't know, take an example like Ayla Beauty, for example, it's a San Francisco beauty brand. They made a 100% pivot to online during the pandemic and, with insights into popular wellness and beauty searches in Google Ads, has been really able to grow their business significantly over the last year.

Sundar Pichai, CEO Alphabet and Google: On Waymo, as you mentioned in our – in Phoenix, we've had very good experience by scaling up rides. These are driverless rides and no one is in the car other than the passengers. And people have had a very positive experience overall. We're obviously – with a strong focus on safety, we're looking to scale it up. Through it all, we are building newer capabilities as well, investing in next generation of hardware and software. So it's an iterative process, and at each step it's very clear to us that we are ahead and we are making progress. And you'll see us continue to invest here with a focus on safety first. And I expect us to scale up more through the course of 2022.

Mark Mahaney, Evercore ISI: Thank you, Sundar. Thank you, Philipp.

Operator: Thank you. Our next question comes from Michael Nathanson with MoffettNathanson. Your line is open.

Michael Nathanson, MoffettNathanson: Great, thanks. I have one for you, Sundar and then one for Philipp. Just a minute ago Philipp spoke to the acceleration in streaming and smart TVs worldwide and the importance that YouTube has on the TV [indiscernible]. I wanted to hear from you about your interest in supporting the smart TV ecosystem, and what do you see as the opportunity for Google in terms of your product offerings to maybe improve consumer adoption of Connected TVs? And then for you, Philipp, people have been asking you about Search. But if you look at Search from a two-year stack, the growth is as high as it's been in years. And I wonder if you can disaggregate for us the growth between maybe new Search customers coming on the platform versus increased spending on an existing per-customer basis? Anything to help us on kind of what drove it on a client-by-client basis on Search.

Sundar Pichai, CEO Alphabet and Google: On the first question on the smart TV ecosystem, look, I mean, there is a shift to these becoming computing devices over time. They're going to be connected computing experiences. People both consume content passively, actively, including gaming, over-the-top video, and so on. So we view this as part of our platform shift. Android TV has made tremendous strides. It's a very customizable platform. We are working not only with TV providers globally, we are doing it with cable-box manufacturers, as well as – we supplement it with Google TV with Chromecast as well. So it's a significant investment from our side making sure we can drive that shift. And obviously there is a lot of synergies for us in terms of being able to bring our services to our users as well as give more opportunities for our Play developers to reach more users as well. But definite strong integration points with YouTube and YouTube TV as well.

Philipp Schindler, SVP and CBO, Google: Look, maybe rather than go into the deep disaggregation that you're talking about, let me maybe talk a little about how we think about the

overall market for Search and the addressable market. In the last call, last quarter, I gave you a little bit of a breakdown here. But what is really important is we're not just addressing above-the-line marketing budgets, which has different metrics around it, but let's say around half a trillion dollars, which is traditional advertising, TV advertising, and so on. There is also significant upside on below-the-line budgets overall, like promotional pricing, product placement, sponsorships, and so on.

And sure, we've seen COVID accelerate the shift to ecommerce at an astounding rate, but keep also in mind 80% of commerce still remains offline. So there's a lot of room for digital to play a bigger role in, and we think we can tap into other budgets that were traditionally used for, let's say, local advertising to drive sales.

And as we think about our long runway for growth, we also think, obviously, about improving user and advertiser experiences for years to come here. And we're constantly asking ourselves, how do we direct better answers to queries, including those with commercial intent? And how do we use our ML to deliver even more relevant and higher quality experiences for users? And our primary focus is really on delivering great experiences for our users and driving incremental value for our partners and making them successful. And I think as long as we do this, we should continue to see budgets move our way.

Michael Nathanson, MoffettNathanson: Okay. Thank you both.

Operator: Thank you. Our last question comes from Jason Bazinet with Citi. Your line is open.

Jason Bazinet, Citi: I just had one question. Maybe it dovetails off of what you just said, but if I take your ad dollars, this quarter \$50 billion and annualize, it's like \$200 billion a year. Are you or the board focused at all on trying to diversify away from the ad market or do you just feel like there's so much runway that there is no real reason to stay focused on non-ad-based growth?

Sundar Pichai, CEO Alphabet and Google: Look, at a high level, we – multiple parts to your question. Obviously, we are very focused on – we have a mission, we have an approach of being helpful across certain important attributes, and we do deep investments in computer science and AI to build services. And out of that, naturally there's diversification over time. When you look at YouTube as contributing to that, you look at Cloud, and within Cloud we have both GCP and Workspace contributing to that, and longer-term we have efforts like Waymo as well. Beyond that, as both Philipp and Ruth have spoken about, with this digital shift, we see a lot of headroom in terms of where – market for either advertising or ecommerce, and so we see a lot of headroom there as well.

So we take a long-term view. We start from first principles towards focusing on both investing in deep technology and solving user problems. And out of that I think you have a set of diversified models that emerge, both different types of businesses and also within a business. For example, in YouTube, we have both ads and subscription over time. And so I think we'll continue approaching it that way with an eye for the long-term.

Jason Bazinet, Citi: Thank you.

Operator: Thank you. And that concludes our question-and-answer session for today. I'd like to

turn the conference back over to Jim Friedland for any further remarks.

Jim Friedland, Director Investor Relations: Thanks, everyone, for joining us today. We look forward to speaking with you again on our third quarter 2021 call. Thank you, and have a good evening.

Operator: Thank you, everyone. This concludes today's conference call. Thank you for participating. You may now disconnect.