

**Facebook, Inc. (FB)**  
**First Quarter 2021 Results Conference Call**  
**April 28<sup>th</sup>, 2021**

**Deborah Crawford, VP, Investor Relations**

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

Before we get started, I would like to take this opportunity to remind you that our remarks today will include forward-looking statements. Actual results may differ materially from those contemplated by these forward-looking statements.

Factors that could cause these results to differ materially are set forth in today's press release, and in our annual report on form 10-K filed with the SEC. Any forward-looking statements that we make on this call are based on assumptions as of today and we undertake no obligation to update these statements as a result of new information or future events.

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

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

**Mark Zuckerberg, CEO**

Hey everyone, thanks for joining us today. Before we get started, I just want to take a moment to say that we're very worried about the Covid situation in India and also in Brazil. I'm hoping that we can get this virus under control soon, and in the meantime we're focused on what we can do to help there.

Now turning to the results, this was another strong quarter. More than 2.7 billion people now use one or more of our apps each day, and more than 200 million businesses use our tools to reach customers. This has been an intense year, and I am proud that we continue to deliver value for people and businesses around the world.

Over the past couple of quarters, our business has been performing better than we expected. And this has given us the confidence to increase our investments meaningfully in a few key areas that have the potential to change the trajectory of the company over the long term. So on today's call, I'm going to talk about the opportunities we're pursuing in augmented and virtual reality, and around commerce, business messaging and creators.

First, let's talk about building the next computing platform. I believe that augmented and virtual reality are going to enable a deeper sense of presence and social connection than any existing platform, and they're going to be an important part of how we'll interact with computers in the future. So we're going to keep investing heavily in building out the best experiences here, and this accounts for a major part of our overall R&D budget growth.

Quest 2 is doing better than we expected, even after the holiday season. We continue to see good engagement, and we keep shipping updates that make Quest better and better, including Air Link which enables wireless streaming of games and content from PCs and support for 120Hz refresh rates.

Achieving Quest's high quality in a wireless form factor has been a major breakthrough. Having wires wrapped around you just really breaks the sense of presence and immersion. The technology to deliver a great experience wirelessly is very advanced, and most companies aren't going to be able to deliver this, but we believe that it is the minimum bar for a high quality experience.

This quarter we also shared more about our future investments, including neural interfaces for interacting with AR. And we started testing our new avatar system, which will be a key part of how people express themselves and connect.

One interesting trend is that we're seeing the app ecosystem broaden out beyond games into other categories as well. The most used apps are social, which fits our original theory for why we wanted to build this platform in the first place. We're also seeing productivity and even fitness apps. For example, we launched a tool so people can subscribe to services like FitXR to do boxing and dancing in VR just like they would for biking on Peloton.

We introduced App Lab so developers can ship early versions of their apps directly to consumers without having to go through the Oculus Store. Between App Lab and streaming from PCs, we're pioneering a much more open model of app store than what's currently available on phones today.

Over time, I expect augmented and virtual reality to unlock a massive amount of value both in people's lives and the economy overall. There's still a long way to go here, and most of our investments to make this work are ahead of us. But I think the feedback we're getting from our products is giving us more confidence that our prediction for the future here will happen and that we're focusing on the right areas.

Beyond AR and VR, I want to call out some of the other long term opportunities that we're really focused on, especially in commerce and business messaging.

Commerce has been growing on our services for a while, but it has become a lot more important as the pandemic has accelerated a broader shift towards businesses moving online. In the last year, we've seen online storefronts stay open even when physical stores closed, and going forward online commerce will continue to offer an increasingly personalized and convenient experience.

Commerce ads continue to do very well and drive a meaningful amount of our overall business. We built Marketplace into one of world's leading services for people to buy and sell, and I am pleased to share today that more than 1 billion people visit Marketplace each month. Now we're investing in building for the future of commerce. We launched Shops last year, and as I recently shared, there are now more than 1 million monthly active Shops and over 250 million monthly Shops visitors.

We're also focused on building more native commerce tools across our apps. We recently updated WhatsApp Catalogs so businesses can keep them updated from their computers and to include what's in stock. We launched carts on WhatsApp last year and people have used them to send orders more than 5 million times.

We're also building out broader infrastructure to support commerce -- everything from payments to customer service and support. WhatsApp payments is now live in India and we've gotten approval in Brazil to launch shortly too.

We're starting to see a meaningful shift in the way that people communicate with businesses. For a lot of people, online commerce is less about websites and Shops and more about messaging. People want to get support and make purchases right from a chat. Smaller businesses want to show their products and take orders via messages, and larger businesses want reliable and secure infrastructure to communicate with their customers.

Businesses using the WhatsApp Business API are already sending more than 100 million messages per day. Over the last year, during the height of Covid, total daily conversations between people and businesses on Messenger and Instagram grew by more than 40%. More than 3 million advertisers are already using "Click-to-Message" ads to direct people to Messenger, and since we introduced "Click-to-WhatsApp" ads nearly 1 million advertisers have already started using them too. Now the next step here is we're going to make it possible to create them from directly within the WhatsApp Business app.

The next step is to make it easier for businesses to adopt all these services, and to give them tools that can handle messages and customer relationships. Our acquisition of Kustomer is going through regulatory approvals and we're looking forward to offering businesses a native way to manage their customer relationships on our platforms.

I want to be clear that we have a long way to go to build out a full-featured commerce platform across our services, and this is a multi-year journey, but I am very committed to getting there. This modern commerce system is going to bring together a number of areas where we either already have strong offerings -- like in ads, community tools, and messaging -- with areas like Shops, business messaging, and payments that we're focused on ramping up now.

As part of this, we're also investing more in building out better customer support for our products. For the last several years we've focused a lot on content moderation and privacy work, and I view customer support as the next pillar of the trust and safety work for our services.

The last area that I want to discuss today is around creators. I think that a positive vision for the future of the economy is one where more people get to do creative work that they enjoy rather than jobs that they don't. To get there, we need to build out the creative and monetization tools to support this creator economy.

People create an incredibly diverse set of content across our services -- from long form writing to live conversations to documentaries and augmented reality filters. Our goal is to support the full range of human expression, and to be the best platform for millions of creators to make a living.

Part of this is going to be delivering a suite of tools and products that span all the ways people want to create and consume content. I believe that at the intersection of every media type and every audience size, there is a compelling experience to build. For example, I recently discussed our audio roadmap. We already support audio calls for private audio communication, but now we're also building out Live Audio Rooms, which we think will be especially useful for groups and communities, we're building Soundbites for sharing and consuming short-form audio clips broadly, and we're supporting podcasts for sharing

and listening to long-form audio. We're also partnering with Spotify to launch a music player in the Facebook app.

We also need to connect these experiences with easy options for monetization -- whether that's subscriptions, tipping, or enabling creators to give product recommendations and enable commerce. With Instagram and Facebook, we have a unique ability to bring creators and commerce together, and we will share more on that later this year.

Together, these efforts -- around creators, commerce and the next computing platform -- are a few of the big areas that we are doubling down on going forward. In each of these, there's a unique opportunity to help people connect in deeper ways and to support a stronger economy for everyone. I'm optimistic that our work in all of these areas will help accelerate some of the positive emerging trends that we're seeing in the world.

And now, I'm going to hand it over to Sheryl.

### **Sheryl Sandberg, COO**

Thanks Mark, and hi everyone. I hope you're all safe and healthy.

This was a really strong quarter for our business. Our total revenue for Q1 was \$26.2 billion, which is a 48% year-over-year increase. We've seen good growth in all regions, and we continue to see strong results in verticals that have performed well during the pandemic, like E-commerce, Retail and CPG.

Our performance has been driven in large part by the continued digital transformation as more and more businesses shift online. For years, we've invested in products and tools to support this shift, and these investments have helped many businesses reinvent themselves during the pandemic.

One of the best parts of my job is I get to meet SMB owners and hear what's on their minds. Many of them tell me how they've used Facebook to adapt and grow. At a virtual roundtable with SMBs from Detroit this quarter I spoke to La'Asia Johnson, who runs an all-natural skincare company called Elle Jae Essentials. When Covid hit and she had to close her store, she started a Facebook Group called The Garden, which now has more than 1,000 members. They give her product ideas, and when she makes the products they suggest -- as she says it -- they sell quicker than she can keep them on the shelves. By pivoting online she's been able to replace all of the income that she lost from her store.

I also spoke to Ita Reyes, who runs a yoga studio in nearby Ann Arbor. She started doing outdoor classes during the pandemic and needed to get the word out. She couldn't afford to advertise to everyone in the city, and not everyone in the city wants to do yoga -- so she uses personalized ads. This enables her to advertise to people in the area who are interested in yoga or meditation. It's all done in a privacy-protected way -- we show her ad to those people, and we don't share their information with her. And then they sign up for her classes.

Like everyone else, the business owners I talk to want to know what will happen next. Many are all-in online -- so even when things reopen fully they want to be able to do more online than they did before. So understandably they're asking us what we're doing to help them, not just now but over the long run. Part of the answer is continuing to improve our tools and products and creating new ones to suit their

needs. And part of it is helping them navigate the headwinds that are coming down the line, whether it's the iOS14 changes or potential regulation.

On the first part – tools and products. We're all-in too. From day one of Covid, we fast-tracked our work to help people buy and sell online. Initially, we focused on getting the experience right for sellers. As Mark said, we launched Shops nearly a year ago. We've continued to develop new features to help personalize the shopping experience and worked with partners to make transactions as seamless as possible. And we've created new formats, like Live Shopping, which bring to life the unique commerce experiences our platforms can offer.

Now we're equally focused on getting the experience right for consumers. We're rolling out the Shop tab in more countries and exploring new immersive formats, like Product Tags and Drops stickers, that enable more people to shop with creators and brands they love.

We're also constantly developing and improving our ad products to help businesses reach people where they are and get the best possible return on investment. We continue to see strong growth in Stories ads and video ads, which we've invested in heavily. We've also seen strong growth across ads in Facebook Watch, which now has more than 1.25 billion people visiting every month. As the number of people watching video grows, we're developing more opportunities for businesses and creators to reach them. We're expanding Paid Online Events to more countries. We're enabling more people to run in-stream ads, including in Live videos. And we're developing ads in short-form videos, where we're testing the ability for content creators to monetize their Facebook Stories with ads that look like stickers.

On the second part – headwinds. Yes, there are challenges coming to personalized advertising and we've been pretty open about that. We're doing a huge amount of work to prepare. We're working with our customers to implement Apple's API and our own Aggregated Events Measurement API to mitigate the impact of the iOS14 changes. We're rebuilding meaningful elements of our ad tech so that our system continues to perform when we have access to less data in the future. And we're part of long-term collaborations with industry bodies like the W3C on initiatives like privacy enhancing technologies that provide personalized experiences while limiting access to people's information.

It's also on us to keep making the case that personalized advertising is good for people and businesses, and to better explain how it works so that people realize that personalized ads are privacy-protective.

Small businesses don't have to understand the alphabet soup of acronyms they'll need to comply with, but they do need to have confidence that they can still use our tools to reach the people who want to buy what they're selling in a privacy-safe way. We're confident they can, and that they can continue to get great results as digital advertising evolves.

With the roll-out of vaccines, there's reason to be hopeful. But the pandemic is still causing real heartbreak and real hardship for people in many countries – and in particular, like Mark, my thoughts are with our friends and colleagues in India and Brazil right now. If the last year has taught us anything, it's to not make assumptions, and to not expect things to get better for everyone at the same time. Whatever happens, we'll continue to keep people connected, support the public health response, and invest in ways to support businesses now and in the long-term.

I want to close by saying how grateful I am to all the businesses who work with us – big and small – who we learn from every day. And to our incredible teams who have supported millions of businesses through this turbulent time and set them up for success now and in the future.

Now, over to Dave.

**Dave Wehner, CFO**

Thanks Sheryl and good afternoon everyone.

Q1 was a strong quarter for our business, driven by the sustained growth in the digital economy and our continued success in helping businesses engage with consumers across our services.

Let's begin with our community metrics.

We estimate that approximately 2.7 billion people used at least one of our services on a daily basis in March, and that approximately 3.4 billion people used at least one on a monthly basis. Note that these Q1 Family metrics reflect new data from recent user surveys. Further details on our family metrics are included in the earnings slides on our IR website.

Our global community continued to grow even as we lapped elevated user growth in the first quarter of last year related to the pandemic. Facebook daily active users reached 1.88 billion, up 8% or 144 million compared to last year. DAUs represented approximately 66% of the 2.85 billion monthly active users in March. MAUs grew by 250 million or 10% compared to last year.

Turning to the financials. All comparisons are on a year-over-year basis unless otherwise noted.

Q1 total revenue was \$26.2 billion, up 48% or 44% on a constant currency basis. We benefited from a currency tailwind and had foreign exchange rates remained constant with Q1 of last year, total revenue would have been \$706 million lower. Q1 ad revenue was \$25.4 billion, up 46% or 42% on a constant currency basis.

The growth in advertising revenue was largely driven by continued strength in product verticals such as online commerce. Growth was broad-based across all advertiser sizes, with particular strength from small and medium-sized advertisers. Our year-over-year ad revenue growth also benefited from lapping pandemic-related demand headwinds experienced during March of last year.

On a user geography basis, ad revenue growth accelerated in all regions. Growth was strongest in Europe at 53%. Rest of World, Asia-Pacific, and the US & Canada grew 47%, 46%, and 42%, respectively. Europe and Asia-Pacific benefited from currency tailwinds while Rest of World continued to face currency headwinds.

In Q1, the total number of ad impressions served across our services increased 12% and the average price per ad increased 30%. Impression growth was driven by both Instagram and Facebook. The increase in average price per ad was driven primarily by lapping depressed pricing levels from one year ago as well as strong advertiser demand.

Other revenue was \$732 million, up 146%, driven by continued strong Quest 2 sales. We've been encouraged by the sustained strength we're seeing with sales of Quest 2 since its October launch.

Turning now to expenses.

Q1 total expenses were \$14.8 billion, up 25% compared to last year. In terms of the specific line items:

- Cost of revenue increased 48%, driven mostly by core infrastructure investments, hardware costs related to Quest 2 sales and payments to partners.
- R&D increased 29%, driven mostly by hiring to support our core products and consumer hardware efforts.
- Marketing & Sales increased 2%, with growth in hiring partially offset by lower marketing spend.
- Lastly, G&A expenses increased 2%, with growth in employee-related costs partially offset by lapping higher bad debt expenses related to COVID in the first quarter of last year.

We added over 2,000 net new hires in Q1, primarily in technical functions. We ended the quarter with over 60,600 full-time employees, up 26% compared to last year.

First quarter operating income was \$11.4 billion, representing a 43% operating margin. Our tax rate was 17%. Net income was \$9.5 billion or \$3.30 per share.

Capital expenditures including capital leases were \$4.4 billion, driven by investments in data centers, servers, network infrastructure and office facilities.

Free cash flow was \$7.8 billion. We repurchased \$4.1 billion of our Class A common stock in the first quarter and we ended the quarter with \$64.2 billion in cash and marketable securities.

In terms of sustainability, I'm pleased to report that Facebook's global operations have now reached net zero emissions and are 100% supported by renewable energy. This is an important milestone for our business, but we also recognize there is more work to do in the years ahead, and we remain committed to our next goal of decarbonizing our entire value chain in 2030. Additional information on our ongoing efforts across environmental, social and governance areas can be found in our recently filed Proxy Statement.

Turning now to the outlook.

We are pleased with the strength of our advertising revenue growth in the first quarter of 2021, which was driven by a 30% year-over-year increase in the average price per ad and a 12% increase in the number of ads delivered. We expect that advertising revenue growth will continue to be primarily driven by price during the rest of 2021.

We expect second quarter 2021 year-over-year total revenue growth to remain stable or modestly accelerate relative to the growth rate in the first quarter of 2021 as we lap slower growth related to the pandemic during the second quarter of 2020. In the third and fourth quarters of 2021, we expect year-over-year total revenue growth rates to significantly decelerate sequentially as we lap periods of increasingly strong growth.

We continue to expect increased ad targeting headwinds in 2021 from regulatory and platform changes, notably the recently-launched iOS 14.5 update, which we expect to begin having an impact in the second quarter. This is factored into our outlook.

There is also continuing uncertainty around the viability of transatlantic data transfers in light of recent European regulatory developments, and like companies across a wide range of industries, we are closely monitoring the potential impact on our European operations as these developments progress.

Turning now to expenses.

We expect 2021 total expenses to be in the range of \$70-73 billion, updated from our prior outlook of \$68-73 billion. The year-over-year growth in expenses is driven by investments in technical and product talent, infrastructure, and consumer-related costs. We remain committed to investing for long-term growth and our expense outlook reflects the underlying strength of our business and the compelling investment opportunities we see across our products, including consumer hardware.

We expect 2021 capital expenditures to be in the range of \$19-21 billion, down from our prior estimate of \$21-23 billion. Our capital expenditures are driven primarily by our investments in data centers, servers, network infrastructure, and office facilities.

Turning now to tax. We continue to expect our full-year 2021 tax rate to be in the high-teens.

In closing, the pandemic during the past year has presented some incredible challenges to our global community. During this time, we have worked to help both businesses and consumers stay connected. We remain focused on helping people and businesses navigate the transition out of the pandemic as more regions reopen.

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

Operator: Thank you. We will now open the lines for a question and answer session. To ask a question, please press "one" followed by the "four" on your touchtone phone. Please pick up your handset before entering your request to ensure clarity. If you are streaming today's call, please mute your computer speakers. Our first question will be from the line of Brian Nowak with Morgan Stanley. Please go ahead.

Brian Nowak: Thanks for taking my question. I have two. The first one, just curious for a little self report card, if you will, around our own commerce. You made a lot of progress, around a million shops, 250 million shop visitors. Where would you say you've made the most progress for advertisers and merchants so far?

And then as you sort of look into the back half and into '22, what are the biggest areas of innovation that you're really focused on to continue to grow that number? Maybe talk about non-advertising monetization optionality.

And the second one I had is around as we -- I know it's early in the reopening, but would be curious just to hear about what you're seeing from an engagement or time



spent perspective of your user base in the areas of the world that are a little more reopened and how you're thinking about that in the back half?

Sheryl Sandberg: I can start on the first. So there's a lot of commerce activity on our platform already. People really discover lots of products through our Feed and ad Stories -- through our Feed and Stories ads.

It's been our largest ad vertical. COVID really accelerated it, but it's been one of the fastest-growing verticals we've had over the last 5 years, and we believe that Facebook drives hundreds of billions of dollars of off-site e-commerce GMV today through our ads business.

So we've certainly made a ton of progress there. And our goals going forward are, we want to continue to be the very best place to advertise. We're going to have to do work to do that, as I mentioned in my remarks, that we can still use data in a privacy-safe way, get the right ads to the right person at the right time, but we think we are market leaders here.

The other work we're doing, and Mark talked about it in his remarks and I did as well, is to make it easier to sell on our platform. Now the shopping experience is really well-defined in other places, and we are later to that than we were to ads. So we know we have a lot of work to do.

We're working with partners to build some of the parts of the experience that we're not as expert in, and we're integrating -- and we're integrating products like Shops.

We have more than 1 million active shops and more than 250 million people interacting with merchandise per month so we've made some good progress. But we recognize that getting to a really seamless transaction experience is going to take work on our side, and we're going to continue to invest there.

I think another area where we do have to do more is we have to improve the consumer experience to help people transact on the platform. We've done, I think, more work on the business side, on the integration side. And now we are focused on continuing to build that and continuing to build out the consumer experience.

For the foreseeable future, ads are going to be the vast majority of our revenue in this area and that commerce vertical is so important to us, we don't need commerce itself or fees to become a big part of what happens in order to make the investment worthwhile, but we really have to focus on helping more businesses move online and have a great experience on our platform. And that, along with ads, makes this a very worthwhile investment for us.

David Wehner: Hey Brian, it's Dave. I'll take the second question. So I think broadly, what we're seeing is just engagement trends that are going back to a more normalized level.

So if you think about the past year, it's been pretty noisy because of COVID, in the first quarter of 2020, we saw a significant increase in engagement as a result of the pandemic, and we've seen some of those trends subside as the year progressed and we saw gradual phase down of lockdowns.

I don't think anything hugely dramatic, but it's certainly something that we're seeing in the engagement trends. And that's one of the factors that's playing into price being a bigger driver of growth on the revenue side because of the impression growth being lower. And I'd say, COVID is certainly a factor in that.

On the revenue front, I think, there we're seeing continued strong demand with products and even -- and then we're seeing services spend come back. So I think that's kind of a quick landscape of what we're seeing with the COVID impacts.

Operator: Our next question is from the line of Justin Post with Bank of America. Please go ahead.

Justin Post: Great, thank you. Maybe one for Mark and one for Dave. I think there's been some questions on engagement just because you see the strong growth of things like TikTok or maybe Snap, but you've built some super platforms within Facebook with the Watch usage and Marketplaces.

Could you comment on what you're seeing with overall engagement? And as people use these over -- new platforms, is it growing, time spent and other factors?

And then the second question, maybe to Dave, any surprises with the iOS 14-5 update? And any comments on what you've seen with users who have already opted out of tracking before this update? Thank you.

David Wehner: Justin, it's Dave. Yes, I can take -- I can take both of those. So yes, on the impression growth front, I think we're seeing a couple of factors. We talked about the COVID impact and the return to more normal levels, and that's affecting some of the impression growth.

The second factor that we're seeing, and it kind of gets at some of your question, which is we're seeing really strong engagement on video, particularly internationally. And that's -- we're pleased with that. I'd point to a couple of examples there. I'd say Facebook Watch, we talked about the 1.25 billion users.

Also, Reels is starting to get traction on -- and doing well on Instagram. Now video currently has relatively fewer impressions on a time spent basis. So that's playing into the engagement trends as well.

And then finally, I would say, we are seeing competition in News Feed from both our own video products and also other products as well. So that's factoring into it.

And then your second question was regarding any surprises with iOS 14.5. Look, I think it's really early. They just began rolling out the update. So it's sort of very, very low kind of penetration rates of the new OS at this point.

But a couple of things I'd say. We continue to be concerned about the impact that this update is going to have on the ability of small businesses to use their advertising budgets effectively.

That said, the impact on our own business, we think, will be manageable. We continue to expect it will be a headwind for the remainder of the year, but we're making encouraging progress, as Sheryl mentioned, on our own solutions to help advertisers navigate these changes.

And that includes helping advertisers work with the Apple API as well as our own approach to using aggregated data for targeting and measurement that we call Aggregated Events Management. So the goal there is really to maintain it in the long run, even improve performance with less data.

So -- and then I'd also add that just in addition to these mitigations, we're also just seeing very strong overall ad demand, which is contributing to a more positive outlook for 2021. And I would say, just overall, the impact of these -- the specific iOS 14 changes are one element of some of the challenges with Apple.

But we think the impact of the Apple approach is really much bigger than this particular update around third-party data usage. Apple has a number of private APIs on hardware and software that advantage their own products and services in ways that are challenging, and we face that issue with -- in places like our messaging products and even with the hardware products we're launching.

So we generally don't think that this closed approach is the best one for the industry from an innovation perspective. Go ahead, France, next question.

Operator: Our next question from Doug Anmuth with JPMorgan. Please go ahead.

Douglas Anmuth: Thanks for taking the question. One for Mark. Mark, you highlighted the three areas where you're doubling down across AR and VR, commerce and then the creator economy.

Hoping you could talk about whether you view these efforts as helping Facebook control its destiny more as a platform, perhaps giving you more first-party data and whether they insulate you from other ecosystems over time? Thanks.

Mark Zuckerberg: Sure. I can talk about that. I think we mostly think about these things from the perspective of improving the experiences that we can build. So augmented and virtual reality, I have thought about for a long time because I think that it's sort of the holy grail of delivering a sense of presence and the type of social experiences that you would want to build.

So right now, and I guess for the whole history of the company, we've been constrained to a web browser, and now, in some cases, this increasingly restrictive mobile app rules.

But I think that this future environment where you're going to be able to feel like you're really present with someone else, that's going to be really powerful. And it's going to unlock a bunch of experiences that we wanted to build for a long time, and that's what I'm really excited about.

Similarly, on the commerce side, I mean part of this is motivated by wanting to help out small businesses and different businesses sell more across our platform. And a lot of it is also just about making the consumer experience better, right?

So right now, a lot of times, you'll click on an ad, you'll see an interesting ad, and it'll take you to a website, and the website won't necessarily have full context on who you are, the payment experience will be clunky in doing that.

And there's just an opportunity, I think, to make that all a lot more seamless. And when it is seamless, it bolsters a better experience for the people using it, but then it also converts better for the businesses and performs better.

So I think the way we're going to approach this is largely from starting with having built out this very robust ad system and then just basically working our way down the experience from there. So making it so businesses and creators can have shops and -- but the ads can then link into Shops and have a native shopping experience.

And then over time, we will also increasingly, as our payment systems get better and better and more people have credentials on file, I would imagine that -- that going all the way through the funnel will become an increasing part of what people do, and that will both be a better experience for consumers and convert better for businesses.

Similar story on the creator side. Here, our main goal is not necessarily that the creator economy is a major business by itself. But if we become the best place for creators to make a living, then I think that's going to mean that there's better

content across the services and better opportunities for community building and engaging people, and that's what we care about.

But of course, if there's more engagement and if creators are finding that there are good opportunities to monetize, then they'll engage more with our business products, too, and there will be some opportunity there.

But -- so I kind of think about all this stuff from the perspective of improving the products. And I think that, that's going to lead to a lot of benefits for all of the stakeholders over the next several years.

David Wehner: Thanks, Mark. France, you can – we can go ahead and go to the next question.

Operator: Our next question is from the line of Ross Sandler with Barclays. Please go ahead.

Ross Sandler: A question for Mark. So this -- I think recently this week, there were congressional hearings on this concept of algorithmic amplification or how algorithms on Facebook or Instagram surface content to kind of maximize engagement. And sometimes that means some of the more controversial content is what gets surfaced.

So first off, is that a fair characterization? And if you guys were forced to maybe change up the way all these algorithms work, what might -- what kind of impact will that actually have on engagement?

I think, 10 years ago the News Feed was kind of the whole story, but now we're talking about many different areas within the app. So how much is from this algorithmic-driven content versus utility style engagement like going into Messenger or going into Marketplace or something that's just kind of an everyday behavior? Thanks a lot.

Mark Zuckerberg: Sure. I can start taking this, and then Wehner, you can jump in if you want to add anything. Overall, I think that the narrative that you are pointing to is dramatically overstated by critics. We do not optimize our systems to increase the amount of time spent in News Feed.

I explicitly do not give our News Feed team or the Instagram feed team goals around time spend. Our belief is that if we build a product that is more valuable, then people will engage more, but you should start by trying to build something that's more valuable, not by trying to increase the time that people are spending.

So we've done that for years, and I think it's yielded good results. So from that perspective, I know that what you're saying is something that -- that some folks like to throw around and say.

But I actually think that the more that different regulators or other folks dig into this, I actually think that our practices here are quite robust. And we don't want extreme -- extremist content or any of that stuff on our services. So if anything, to the contrary of trying to promote that, we go out of our way to try to reduce that.

And I think that, contrary to what a lot of these other folks say is it is actually in our business interest to reduce it because people don't like it, right? I mean, consumers don't like it. Advertisers don't want to be near it.

So I don't actually think that this kind of narrative about the company is accurate. And we've tried hard to dispel it. I don't think we've been super successful at that. We will continue trying to work on that. But just to kind of be clear about how I see things, that's the basic download.

I think News Feed is still a huge part of the products and the home feed in Instagram. But increasingly, Stories is a big deal in Instagram, a lot of people are using Explore and IGTV. Video and Watch on Facebook are quite big.

And as you say, a lot of people spend a lot of their time and attention in messaging apps and private interfaces like that as well. So, I think there are a lot of different things that people are doing across the services. But Wehner can jump in with any more color on that, that he wants to add.

David Wehner: I mean, the only thing I'd add to yours, Mark, is that, I think more than anyone else in the industry, we invest on the safety and security side to sort of keep bad content off the site before it gets ranked and put into what people see.

So we've got 35,000 -- over 35,000 people on the safety and security side. We've got the most robust set of content policies out there.

We do a quarterly call, public call around our content review process and procedures. So I think that on the front, before it even gets into the algorithm, I think we really do more than anyone else in the industry on the safety and security front to prevent things like misinformation and a bad content going into the system in the first place.

Operator: Our next question is from the line of Youssef Squali with Truist Securities. Please go ahead.

Youssef Squali: Great, thank you very much. I have a two-part question on VR for Mark. Mark, you've been talking about VR for a long time now, every -- basically every quarter. I was just wondering what happened this particular quarter that's compelling you to want to double down on virtual reality?

What was the realization this quarter that maybe made you want to do that? And I guess more importantly and related, is there a need for Facebook to perhaps want to own a studio or maybe a series of studios to accelerate the rollout of content which should help drive adoption because the other friction point is price, and you've already lowered the unit to \$299, which is a very compelling price? Thanks.

Mark Zuckerberg: I can start with this, and then Wehner can jump in on the second point, if you want to add anything. In terms of what changed, I think the big piece here is that Quest 2 is doing quite well. I don't want to overstate it because I think compared to platforms that are kind of large, massive successes today, it's still, obviously, on the small end.

But there's been a very real inflection in terms of adoption and engagement that we're seeing with Quest 2. It feels like there's something about the quality bar that we hit and the price that we hit and the fact that we're able to do that in a wireless form factor. But I think it's just -- first of all, it's going to be really hard for anyone else, I think, to meet those different attributes.

Some other folks might try to ship something that they claim is higher quality but has a wire. And I just don't think that consumers are going to want to go for that. So we'll see how all of that plays out.

But I also just look at how the team is executing and the products that we have in the pipeline. And I want to make sure that we can really go all in and deliver this. But I do admit Quest 2 has been a meaningful step up from Quest 1 in terms of the progress that we're seeing.

And content is definitely a part of this. And we have a team internally that's focused on both first party, I guess it's all first-party, second-party and third-party content and making partnerships with studios.

And that certainly is a big part of this. I think Quest has, I think, by far, the best lineup of VR content. And I think the road map of what's ahead is even more exciting, some of the stuff that's coming over the next few years.

David Wehner: Yes, Mark, I wouldn't have much else to add other than to just say that we've repeatedly called out investments in FRL. Facebook Reality Labs is one of the major investment drivers in our expense outlook.

So it's not the first time that we sort of put a spotlight on that. It's been an ongoing investment area. And studios, as Mark said, and content is an important part of that. France, we can go to the next question.

Operator: Our next question is from John Blackledge with Cowen. Please go ahead.

John Blackledge: Great, thanks. Two questions, one on the AR/VR. Mark, as you're building and investing in the platform, when do you expect AR and VR to be more widely adopted? What ultimately drives the fast pace accelerating consumer adoption?

And then the second question for Dave. Cost growth was lower than expected in 1Q. You slightly raised full year at the midpoint. Anything there that you could call out? Thank you.

Mark Zuckerberg: So, I can talk about the first piece, and then, Dave, maybe you can take the second piece. In terms of when these platforms will be more adopted, I think a lot of it is about form factor and use cases.

I mean Quest 2, I think, is -- we kind of hit a key point, but I think there's still further that we want to go on the form factor of that. But I think the wireless part is key.

So I'll just say that again. So I think that there's a lot that you can do in terms of getting products that might have better graphics or something. But with a wire, it really hurts the sense of immersion because you don't want to have like a wire wrapped around your neck while you're doing all this stuff.

But the other big piece is the use cases, which is why I called out in my remarks in the beginning that one of the promising signs that we're seeing is that it is expanding out beyond games.

Now it's still primarily games. But when we started on this journey, a lot of the reason why I said that I thought it made sense for us to invest in this is because I expect virtual and augmented reality to be some of the most social platforms that get built.

And the fact that a number of the most engaging experiences on the platforms today are social and a lot of the top games are social, I think, is really promising. But also seeing things in terms of productivity (inaudible) and like I mentioned, it's just really promising that you're seeing the early signs of this becoming a broader platform.

So there's -- again, I don't want to overstate any of this because it's all quite early still, and all these things need to develop out, but those are very promising signs



from my perspective. And as those keep on developing out, then I think the platforms will be broadly applicable to more people.

And then the other thing I'd say is that we haven't really even gotten there on AR yet, right? I think virtual reality, the form factor constraints, I think, are a little less than what you're going to have an augmented reality, where in virtual reality, I think you need to get to a high-quality wireless experience.

In augmented reality, you're going to really need a pair of glasses that look like normal looking glasses in order for that to hit a mainstream acceptance.

And that, I think, is going to be one of the hardest technical challenges of the decade, it's basically fitting a supercomputer in the frame of glasses. So I'm -- I find that a very exciting problem to work on, and I think that once that's achievable, the potential on that is going to be quite big.

David Wehner: And then, John, it's Dave. Just on the Q1 total expenses, I called out some of the items in my comments. But I think you've got a couple of factors. One was marketing spend was relatively lower compared to Q1 of last year, or growth was lower.

And then also, we had a bad debt expense that, I think, was not unique for Facebook. I think you see this in some other companies as well that we took in Q1 of last year related to our expectations on collectability around COVID. So that's factoring into some of the compares on the growth rates as well.

And then as you look at the remainder of the year, a couple of things. One is the strength of the business, in general, is giving us confidence, and we're looking for areas to invest more.

So we're continuing to invest in research and development across the priorities that Mark outlined in his comments. And then as well, we'll see a pickup in things like marketing in the remainder of the year.

So that's what's driving the acceleration of expense growth as you look forward. And then the COVID compares are a little bit - there's just different expense lines that COVID impacts. So, it's a little noisy from that as well. France, you can go to next question.

Operator: Thank you, our next question is from Lloyd Walmsley with Deutsche Bank. Please go ahead.

Lloyd Walmsley: Thanks. Two questions. First, Sheryl, in the past, you've talked about advertising being kind of a relative ROI game.

So when you think about the shift from iOS changes, perhaps going from like an operational short-term headwind to potentially a tailwind as other outlets for advertising lose ROI on a relative basis, like is that something that happens in months, in quarters, in a year? Like talk about how you see that potentially evolving?

And then second one, Sheryl, you also talked about starting to invest more in building out the consumer experience on the shopping side. So maybe you can just walk us through some of the things you think Facebook can uniquely bring into e-commerce that might make for a newer, better user experience? Is that AR/VR? Is that -- what are some of the things that could really make Facebook stand out for consumers on e-commerce?

Sheryl Sandberg: Yes. On the first, the relative ROI, you're exactly right. People are going to advertise. They're going to advertise on TV, on radio, on billboards, on different online platforms, and they're looking for relative ROI.

That means if signal goes down and it goes down everywhere, we're competing differently. Our goal is to make sure that we can still do personalized ads. We do think that our relative competitive advantage has been that our ads are more personalized.

And that's really important because as in some of the examples I shared, most small businesses - the yoga studio in Detroit can't afford to advertise to everyone in Detroit, much less everyone in Michigan, much less everyone in the U.S. And so advertising using -- who lives there and who's likely to be interested in yoga and meditation is really important.

We believe we will still be relatively better positioned. Virtual -- Based on -- not all players, right, because we're not running the platforms, but based on many, we're still going to do better at that than a lot of digital players. We're still going to do better at that than TV or radio.

But when signal goes down, we're going to have to rebuild that capability, and that's what I talked about. In terms of the timing you asked specifically, we really don't know. The iOS 14 changes are really new. Regulatory changes that might happen at a state level or a global or a regional level or a national level haven't happened yet.

So we'll have to see. And I don't have a real sense of what those changes will be, what their impact will be right now. But we are very focused on competing for those ad dollars and doing it as well as we can.

In the consumer experience on the shopping side, where we are right now is we launched the shop -- a lot of the shopping tools, and we've had broad business adoption, and that's been good.

We don't offer the full suite of tools that a lot of other places do. But more and more, we have shops functionality that people are adopting. We really need to work on the consumer side of the experience.

I do think we have a unique opportunity there. You asked again, like what is our -- I think -- this is my language, not yours, but I think you were asking like what is our sustainable competitive advantage here. We have a lot of people doing a lot of activity. We increasingly have people looking for products. We increasingly have people finding products.

And so we've always been strong at the top of the funnel. Can we move people down the funnel? We think we can. But that's going to take work, and it's also going to take some time for people to get used to that.

But in terms of the long-run competitive advantage, we have a lot of people looking for a lot of things, sharing a lot of things, and continuing to find things they really like. And so I'm very optimistic about our opportunity here, but it's going to take real work.

David Wehner: France, you can go ahead and go to the next question.

Operator: Our next question is from Colin Sebastian with Baird. Please go ahead.

Colin Sebastian: All right, thanks. Good afternoon. First, Mark, maybe as another follow-up on VR and AR and the connection or synergies you see between Reality Labs and the other priorities you mentioned around commerce, communications, and creation. I'm curious if those are collaborative initiatives internally, or are they still somewhat siloed as far as product plans and development is concerned?

And then secondly, an area of connective tissue as well, I think, is unified payments. I'm just curious how important that will be to enable the shopping and transactions on the platform and what role that Diem and other digital currencies may play in that effort?

Mark Zuckerberg: Yes, they're good questions. I think right now, I think the trajectory of this is that when you are very early on in the platform, it's helpful to centralize a bunch of that development close together in the organization.

But then as things start to build out and you want to get the full energy of the different app teams involved in building for this, then you want to decentralize it more.

So -- so right now, it's still more on the centralized side. But I'd say that over the next year or two, we're certainly going to federate more of that work out across the company and have more of the work that we do be building towards these different platforms.

And to your point on the other kinds of services that are important for commerce, payments, both things like Facebook Pay and eventually, hopefully, we'll be launching Novi and -- sorry, Diem soon, that, I think, is going to be a pretty big thing, too.

And that's very important for all the reasons that you're saying. Commerce, across all these platforms, is going to be very important. And certainly in a platform that we're building like this, we want to enable payments very easily to make it so that -- the economics all work out for developers.

Deborah Crawford: Operator, I think we have time for one last question.

Operator: Very good. Our last question will be from the line of Michael Nathanson with Moffett Nathanson. Please go ahead.

Michael Nathanson: Thanks so much. I have one for Mark and one for Dave. So Mark, on the comments about the creator economy, I'm interested, given how many people are focusing on different parts of the creative economy, where do you see the opportunity? And what do you think you can be -- you could add as the biggest value add for creators that's not being done today?

And then Dave, on pricing in the auction, I know that it's up because of the easy comparison last year. If you look at pricing on a two year stack, it's actually up nicely.

And over the years, you've been telling us pricing is going down because of mix shift by product and geographies. So can you give an update on what actually drove pricing maybe on a two year basis to be that much better than it's been on trend? So, thanks.

Mark Zuckerberg: I can start off by talking about the creator economy piece. I know there are a few important components here that creators need. One are the creative tools to be

able to share the full range of expression, right, so from any kind of writing, to audio, to video, to all these different mediums.

Then the second is connecting that work with a large audience of people and helping people find their audience and community. And then the third is monetization. And I'd say that we're probably strongest on the second two of those today. And I think we have creative tools, and we will invest more in building those.

But when it comes to helping people reach the largest audience or finding their specific audience, I think we are world-class at that. I think we're the best at that. And then in terms of monetization, I also think that as our business results show, we are very efficient at that.

And if we can put that to work for creators to help them make money from their work, then that can help achieve this goal of enabling millions of people to make a living through this kind of creative work.

So I think on those two pieces, especially on the monetization side and on the helping people connect with their specific community and getting as much distribution as possible, I think that we're going to do some really great and unique work to help a lot of creators out. And then we'll build out the broader suite of tools, too, but I think that those two places are really where we enter this from.

David Wehner: And Michael, I'll take the second question about pricing. I think the really simple story on pricing is that demand has just been higher than we expected for ads. And I think it's -- if you had to pick one vertical, it would be commerce that outperformed.

But it's a -- and that dovetails nicely, obviously, with our commerce efforts. But it's really been a broader story than that. Really almost every vertical was very strong. I think we're still kind of -- we're still seeing recovery in some of the verticals that were weaker from COVID, like travel.

But we're starting to see, I think, some signs of life there and in some other verticals that were negatively impacted by COVID. But really just strong across-the-board demand for ads has been what's driven it for us. I think the two year compare that you talked about is a helpful compare because there's a lot of noise in our year-over-year revenue growth rates when you look just at 2020 compared to 2021.

And if you do sort of a two year compare, I think -- and looked at the year-over-year growth rates by quarter, I think we'd expect a more normalized rate of deceleration of growth, not -- not just all of the bouncing around from the weak quarters that we're going to have and then I think correspondingly stronger quarters as the year progresses from a compare basis into 2020. But yes, the simple story, advertiser demand, better than we expected.

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

Operator: This concludes today's conference call. Thank you for joining us. You may now disconnect your lines.