S&P GlobalMarket Intelligence

Roblox Corporation NYSE:RBLX

Earnings Call

Thursday, August 1, 2024 1:30 PM GMT

CALL PARTICIPANTS 2
PRESENTATION 3
QUESTION AND ANSWER 7

Call Participants

EXECUTIVES

David Baszucki

Founder, President, CEO & Chairman of the Board

Michael Guthrie

Chief Financial Officer

Stefanie Notaney

Senior Director of Financial & Corporate Communications

ANALYSTS

Aaron Lee

Macquarie Research

Andrew Edward Crum

Stifel, Nicolaus & Company, Incorporated, Research Division

Bernard Jerome McTernan

Needham & Company, LLC, Research Division

Cory Alan Carpenter

JPMorgan Chase & Co, Research
Division

Matthew Andrew Cost

Morgan Stanley, Research Division

Shweta R. Khajuria

Wolfe Research, LLC

Arthur Chu

Bank of America, Research Division

William Lampen

BTIG, LLC, Research Division

Presentation

Operator

Good morning. My name is Pam. Welcome, everyone, to Roblox' Second Quarter 2024 Earnings Conference Call. [Operator Instructions] I'd like to turn the conference to Ms. Stefanie Notaney, the Head of Financial Communications. You may now begin your conference.

Stefanie Notaney

Senior Director of Financial & Corporate Communications

Thank you. Good morning, everyone. Thank you for joining our Q&A session to discuss Roblox' Q2 2024 results. With me today is Roblox Co-Founder and CEO, David Baszucki, and our CFO, Michael Guthrie. Our shareholder letter, press release, SEC filings, supplemental slides and a replay of today's call can be found on our Investor Relations website.

Our commentary today may include forward-looking statements, which are subject to risks, uncertainties and assumptions that could cause actual results to differ materially from those described in our forward-looking statements. A description of these risks, uncertainties and assumptions are included in our SEC filings, including our most recent reports on Form 10-K and Form 10-Q.

You should not rely on our forward-looking statements as predictions of future events. We disclaim any obligation to update these statements, except as required by law. During this call, we will also discuss certain non-GAAP financial measures. Reconciliations between GAAP and non-GAAP metrics can be found in our press release and supplemental slides. With that, I'll turn the call over to Dave.

David Baszucki

Founder, President, CEO & Chairman of the Board

Thank you. Hey, welcome, everyone, to our Roblox Q2 2024 earnings call. Overall, it was a solid quarter for Roblox. We'll validate this as we kick off with the numbers. I'm going to touch base a bit on the dialogue we started with our earnings call 3 months ago. And then I'll give an update on why we're optimistic about our future growth prospects.

Starting with the numbers for the quarter, all metrics are back on north of 20% year-on-year growth rates and strong margin improvements. Our revenue in Q2 was \$893.5 million. That's a 31% year-on-year gain. And that beat our guidance, which was in the range of \$855 million to \$880 million. Our bookings were \$955 million, that's year-on-year 22%. That beat our guidance range of \$870 million to \$900 million.

We had a record number of DAUs at \$79.5 million, that's year-on-year 21%. And our over 13 DAUs were particularly strong with 26% year-on-year growth. And our over 13 are now 58% of our total DAUs. Strong across all regions, U.S. and Canada saw their fastest growth since Q1 2021. Japan, 1 of the largest gaming markets in the world, we have our DAUs growing there at 56% year-on-year. And India DAUs are growing at 57% year-on-year. That's an enormous potential market for us.

Our hours engaged hit a record \$17.4 billion year-on-year, that's 24%. Similar to DAUs, that was our strongest growth in over 13 with 30% year-on-year growth in hours. And similar trends in the U.S., Japan and India, with Japan engagement hours growing 66% year-on-year and India growing 60%. Our consolidated net loss was \$207 million that compared to our guidance of \$267 million to \$265 million. We were roughly \$60 million better than what we guided to.

And in addition to the strong top line, we continue to show a lot of fixed cost discipline, couple of highlights there. Net cash flow operations in Q2, \$151 million, up 433% year-on-year. And our Q2 free cash flow was \$112 million versus a year ago where it was negative \$95.5 million. We're continuing to see benefits from all of our investments. The quality of our platform continues to go up well. At the same time, we're keeping costs under control.

Importantly, our infra and trust and safety expenditures were 8% lower year-on-year. The efficiencies are coming to a lot of infra efficiency initiatives. We are continuing to add AI efficiency to our safety and moderation platform. And we'll note on the personnel expenses, that was flat year-on-year. But we would note that we've consolidated a number of employees to work in our office in San Mateo rather than remote. And unfortunately, not all of them were able to make the move. That contributed to our flatness year-on-year.

We do continue to hire, especially in the areas that are key growth areas for us, including our AI platform, our safety group areas that are driving perf and quality on the platform. And our economy and ads team. Okay, 3 months ago, we shared with you on the earnings call, steps we were taking to offset unseasonable growth rates that we had seen in Q1. And we shared that we are seeing early signs of positive impacts that have continued, as we can see by the numbers into Q2.

We highlighted a focus on 4 key areas. One was live ops, including bringing back platform-wide events in March, which kicked off with our Hunt. Subsequent to that, we've done The Classic, and we're just going live now with our next event called The Games. We talked a bit about ecosystem health. I'm going to talk about that and improvements in search and discovery.

We talked about economy improvements, and we also talked about just raw perf and quality. We've really been executing on those 4 big initiatives and in addition to everything else we do in the company. On the search and discovery side, we've taken a lot of steps to drive the diversity and help our users discover awesome new content. In addition to our AI-driven algorithm, we have brought forward really intelligent curation of up-and-coming content and content with new releases that we call today's picks.

We have also increased the ability for our creators to launch and boost their properties with the ability to buy sponsored tiles on our homepage. And we've seen an increase in variety of content bubbling to the top of our marketplace. We are continuing to optimize and refine our economy. One of the initiatives we shared with you was improving the pricing dynamics of our Avatar accessory marketplace. That's really paid great dividends. Our developer community is also working with the launch of price optimization, which will help developers around the world.

And on the perf and quality up and down our stack in a bunch of metrics that affect everything from very low end to Android devices throughout devices on our platform. We've continued to make improvements in raw performance, stability, quality, join times, frame rates, all things that contribute to our growth rate.

Looking ahead, when we went public, we shared for growth vectors that we believe will take us ultimately to 1 billion daily active users, including growing around the world, growing amongst users of all ages, expanding the use case of Roblox to include gaming, social communication, shopping, entertainment and learning and expanding the diversity and power of our economy.

Those are all continuing to show growth. And I want to just take a quick look. Just within the gaming segment right now, we have a very, very small portion of that, and we have enormous headroom in that 1 segment. Our UGC approach brings with it an extremely long tail of content. We have well over 20 experiences now on the platform with north of 20 -- sorry, north of 1 million DAUs. Our creators are pushing to any device, in any language. We have our users bringing their expressive and personalized avatars from experience to experience with a vibrant social graph and immersive 3D communication built in.

And we're putting all of this on top of an extremely high performance and increasingly efficient infra platform, that in addition to supporting 3D simulation is and will more and more support AI inference as well. A couple of highlights just in the gaming segment, Dress To Impress has come out of nowhere. It's an exciting property on the platform. It has doubled in DAUs from Q1 to Q2 of this year. It's a social sensation on TikTok, and it's really loved by users of all ages on our platform.

Dusty Trip, a new release, just released in March, is solidly into the millions of daily active users. And FIFA -- on June 1, FIFA launched a major update to FIFA World including a new tycoon style game. And since the update, they've seen bringing their -- they brought their total visit count to over 22 million and the 18 and up users have increased 20% in the last 90 days.

In the advertising and shopping domain, I just want to highlight the continued growth and progress we've seen there. We've launched our video ads product. We've enhanced our self-serve ad manager. We've introduced third-party integrations with IAS at PubMatic. We are now testing real-world shopping in Roblox with partners at Walmart and e.l.f. Beauty. And in Q2, the total brand activations to date went north of 400, which is almost double the cumulative from a year ago.

Couple really fun new brand partners. You might have read about IKEA's Co-Worker, a virtual IKEA Store, where they hired real-life employees to work in the virtual IKEA Store. Netflix launched their persistent IP hub Nextworld. And we've seen also activations from Shrek, Despicable Me and Six Flags. New artists on the platform, Rolling Stones, Ice Spice, and we had a concert from Post Malone from the Louvre as part of the Olympics with our partner, Visa. We'll share a lot more of these updates in September at our developer conference.

One other note, I'm in the room with Mike Guthrie and we're smiling at each other. I wanted to share that Mike, our Chief Financial Officer, has decided to move on from Roblox to pursue his personal interest and focus on his next chapter. And together, Mike and I are going to begin the succession process. Mike is going to stay on as our CFO through the search for a new leader and transition period, which we do anticipate will take some time.

Just want to highlight, Mike joined the company in 2018. And over the past 6 years, with Mike's leadership and contribution, we've had quite an impact throughout the company. Real part of our journey, helped us go public, helped the investors, employees and Board members understand how the business works, helped us explain really how we run our business based on cash and bookings, and that's really contributed to driving our growth. And the team that Mike has built is absolutely amazing and contributes a lot to our growth.

So, hey, Mike, before I hand it over to you, I just want to say on a personal note, it's going to be fun to still keep working together, as we do this search and we're also thankful for you and glad that we have a little more time to work together. So thanks, Mike, and I'm going to hand it over to you.

Michael Guthrie

Chief Financial Officer

Okay. Thanks, Dave. I appreciate it. I want to just reiterate, I've also really enjoyed the last 6.5 years. I look forward to finding a great financial leader for the company and helping that person transition. And I feel -- as the Head of Finance, I like the financial position that the company is in. I feel good about where we are in terms of growth, and return to cash flow margins are expanding and the balance sheet in just pristine conditions. So it's been an amazing period of time and really good fortune to have been at the company during so much growth.

I do want to reiterate a lot of comments that Dave made regarding the quarter and the condition of the business and where we're going to be able to take it and as that relates to our guidance in the full year. Bookings, as he mentioned, grew at 22%. We know that at our Investor Day last November, we talked about maintaining 20%-plus growth. We were a little bit below that number in the first quarter.

And even with a little bit of a challenging April, we produced 22% growth for the quarter. So the exit rates were very healthy and have been as we transition into Q3. Operating leverage is really kind of the highlight, I think, for this quarter. And after you look at the top line, it's really about the leverage. We've talked about getting our fixed cost down and getting leverage on our fixed cost that really falls into 2 buckets: Infrastructure, trust and safety.

The metric that we look at, and you can calculate looking at our supplemental materials, which are now on the IR website is cost to serve per 1,000 hours. That's our KPI. That's what the team is focusing on. And that is really -- we've been able to get that number down pretty dramatically over the last year. In Q2 of last year, our cost to serve per 1,000 hours is about \$12.75; this quarter, \$9.61, which is a 25% reduction.

And if you look at infrastructure, trust and safety as a percentage of bookings, that number has moved from 17% down to 13%. So that's a significant part of operating leverage. There's a lot of technology behind that. There's a lot of getting our infrastructure to a more efficient place, and we have plans to

continue to drive efficiency in that area. And the other 1 has been headcount. Dave mentioned some of the return to office.

And right now, if you look at -- again, these are numbers you can look at from our supplemental materials. The latest 12-month bookings per person is a metric that we look at, that was about 1.3 million this time last year, 1.6 million this year. So that's an increase of about 20%. And at the same time, our cost per person is well under control. And so as a result of getting fixed cost leverage on headcount, personnel costs as a percentage of bookings went from 26% this time last year to 21% in this quarter.

So very, very strong improvement overall in operating margins and well above the 100 to 300 basis points that we talked about at Investor Day and sets us up well. Capital expenditures, they were about \$334 million last year. This year, there'll be about \$180 million. And another 1 of the things we talked about at Investor Day is the free cash flow efficiency, turning operating cash flow into free cash flow and free cash flow of \$112 million, as Dave mentioned, versus negative \$95 million last year is a really big turnaround.

And for the full year, I'll talk about guidance here in a minute, we are guiding to over \$0.5 billion of free cash flow this year. So that's a great improvement, and we're really excited about that. So speaking of guidance, I'm going to run through very quickly. It's in the letter. It's in the -- on our website right now, but I'm going to go through the Q3 guidance and full year guidance, and then we'll open it up for questions.

So for the third quarter of 2024, we are guiding revenue between \$860 million and \$885 million. That's a year-over-year growth rate of 21% to 24%. Bookings, we are guiding for the third quarter between \$1 billion and \$1.025 billion or a year-over-year growth rate of 19% to 22%. Our consolidated net loss or guidances of between negative \$275 million to negative \$255 million, a significant improvement over where we were last year.

Adjusted EBITDA between \$22 million and \$42 million, an increase compared to negative \$26.4 million last year. That number excludes adjustments for deferred revenue and deferred cost of revenue. The total of those 2 deferrals is \$113 million. So when you're building your models, for the analysts out there, you have to consider those 2 line items. Operating cash flow, net cash and cash equivalents provided by operating activities for the third quarter, our guidance, \$147 million to \$162 million, which is a year-over-year increase of 37% at the midpoint.

You can see operating leverage continuing into the third quarter and back half of this year. We expect CapEx around \$42 million for the quarter, which means that free cash flow will be between -- our guidance is will be between \$105 million to \$120 million, and that's a year-over-year increase of 89% at the midpoint of our guidance. So operating average continues, fixed cost leverage continues, free cash flow continues to grow well in excess of what we're guiding on top line bookings growth.

For the full year of fiscal 2024, we're raising pretty much all of our metrics. Revenue, we now expect to come in between \$3.49 billion and \$3.54 billion, a year-over-year increase of 25% to 26%. Bookings, we expect to come in between \$4.18 billion and \$4.23 billion or a year-over-year growth of 19% to 20%.

Our consolidated net loss for the year between \$1.089 billion and \$1.049 billion. Adjusted EBITDA, the range is \$92 million to \$132 million, with \$548 million of deferred -- \$711 million increase in deferred revenue and a decrease of \$163 million for the deferred cost of revenue. So the net is \$548 million if they use both the adjusted EBITDA and that number in your models.

Net cash and cash equivalents or operating cash flow, our new guidance is \$685 million to \$715 million or year-over-year growth of 53% at the midpoint. And again, that continues to show very strong operating leverage. CapEx will stay in the range that we talked about at \$180 million. And that means that our free cash flow guidance for the full year now moves to \$505 million to \$535 million. That's a year-over-year increase of 319% and an increase of about 35% above the guidance that we gave last quarter. So we feel really good about the financial condition. The balance sheet is in great shape. Top line growth has continued, and we continue to believe we'll show operating leverage and free cash flow leverage in Q3, and that's what's also reflected in our full year guidance. So with that, thanks very much to everybody, and we're going to open it up for questions.

Question and Answer

Operator

[Operator Instructions] We will go first to Drew Crum at Stifel.

Andrew Edward Crum

Stifel, Nicolaus & Company, Incorporated, Research Division

Okay. And Mike, best of luck too. It was a pleasure working with you through the years. You touched on this in the shareholder letter and kind of touched on it in your prepared remarks, but I just want to see if you can expand on the point, if our math is correct using the midpoint of the range, it looks like you've taken up bookings guidance for the second half by \$85 million. Can you address the source or sources of the upgrade and just the confidence you have in achieving the updated range?

Michael Guthrie

Chief Financial Officer

Yes. The major changes that we had started to implement this time 3 months ago when we did the call, we have started to see the level of improvement happening in the back half of April and the beginning of March, and we were cautiously optimistic and reflected in our guidance -- lower guidance at the time that we didn't have enough data to project that forward.

What we have seen since that call has been actually an acceleration of those trends, very powerful improvements in user growth and in -- especially in engagement and then subsequently in our bookings growth as well. So given the -- again, the sort of the exit rate of growth of bookings in the second quarter and what we've seen at the beginning of the third quarter, we felt comfortable bringing the full year guidance back up.

And on top of that, continue to see the kind of operating leverage that we expected to see, which reflects why we've increased the -- basically all the below-the-line metrics all the way down to free cash flow. So that's a simple -- answer is that what we saw working 3 months ago is continuing to work very, very well and actually has accelerated in terms of its impact. And we feel like the health of the platform has really just never been better.

Andrew Edward Crum

Stifel, Nicolaus & Company, Incorporated, Research Division

Got it. Okay. And then just separately on the regulatory front, the U.S. Senate passed 2 bills yesterday, aimed at protecting children online. Just curious your thoughts on how this, in any way, impacts the Roblox platform? Would it require any step-up in investment? Does it change your plans and strategy around advertising?

David Baszucki

Founder, President, CEO & Chairman of the Board

Yes, great question. I'll start with the metaphor, which is a while back, Roblox came forward as the first sponsor of the California age appropriate design code. We're always behind legislation that helps support privacy and safety of people around the world. And in the case of the California age appropriate design code, we happen to be already implementing much of what was in that code and supported it.

So we're -- we continue to monitor legislation. We're very supportive of legislation that helps ensure safety and privacy. It's been the foundation of our company ever since we started. Thanks, good question.

Operator

We'll move next to Bernie McTernan of Needham.

Bernard Jerome McTernan

Needham & Company, LLC, Research Division

Copyright © 2024 S&P Global Market Intelligence, a division of S&P Global Inc. All Rights reserved.

Maybe to stick on the point of guidance. Mike, just given the commentary of the strong exit rate of 2Q and strong start to 3Q, just surprising the decel, maybe that's being guided to for 3Q and 4Q. So just not sure if you're going to go into more detail there. I know there's -- the shareholder letter called out conservatism.

And then maybe for Dave, just talking about new genres in the shareholder letter like action, sports, racing, what does it take to stand up in new categories like this? And how is the process work to communicate to developers and additional tools that you need to provide them?

Michael Guthrie

Chief Financial Officer

Bernie, I don't think there's any significant deceleration model into the guidance to be perfectly candid with you. Yes, the gross -- the exit rate is strong, and we've seen that. We're going to continue to be careful and conservative with our guidance. We want to leave ourselves room. And I think that's really the best thing to say at this point.

90 days from now, we'll be back here, we'll talk about our results and whether or not we did better than these numbers. But we feel great about the business and want to make sure that we continue to exceed what we talked about at Investor Day last November, and that's really what's baked into this.

David Baszucki

Founder, President, CEO & Chairman of the Board

On the gaming front, and we touched on it, but we'll go into just a little more arguably wherever you get your data, the gaming space is north of \$160 billion market. And so when we look at our bookings guidance for the year of maybe 4.2, we're right now at just 2.5% of that. What we talked about regarding genres is there are some -- there's many genres where our creator community is super strong with properties in the 1s and 5s and north of 10 million daily active users, and that includes role play, battle, platformers, war experiences.

What we shared with the creator is the platform we have and the infra, the game engine, the tooling, we believe could support a wide range of genres in gaming. We did a research study to highlight genres that we just thought were underutilized right now. This is less about our tooling and more just making our creator community aware. And we're seeing really good early signal in open-world action, sports, racing, social, cooperation type platform. So we just think there's headroom there in some genres that our creators are now starting to take advantage of.

Operator

We'll go next to Cory Carpenter at JPMorgan.

Cory Alan Carpenter

JPMorgan Chase & Co, Research Division

You touched on your commerce and ad initiatives briefly in your prepared remarks, but hoping you could expand on the progress you made on both this quarter and how that shapes your thinking around the longer-term opportunities?

David Baszucki

Founder, President, CEO & Chairman of the Board

Yes. I'll share a couple of really additional pieces of color. There are -- there's 3 main areas we have been working on and implementing. The first is very simple traffic-type ad units on our own platform. You can see those on our homepage right now. They say sponsored. We've increased that. We've seen an uptick of our own creator community.

And when I mentioned FIFA, for example, they actually took advantage of that to help launch and boost their property. So there's a large opportunity for even the creators on our platform. We launched video now for brands, and we're seeing subsequent quarter-on-quarter growth of that unit as well.

And finally, long term, we are also supporting portals that bring traffic to experiences. And more and more with the stuff we've implemented like IAS integration and real-world shopping, we're going to more and more give our brands the ability to close the loop on that and really measure more and more accurately the benefit of those units so continue to make great progress. I think Mike wants to add a little.

Michael Guthrie

Chief Financial Officer

Yes, Cory, I also want to make a comment about the growth rate of the business and the forecasting of the business. One of the things that we think is really crystal clear that's come out of the last few months is that we have the ability to build a great business with brands and ads and shopping, and we have a great core business that we have built over the years and is growing very rapidly.

It's really clear to us that we can continue to grow the core business, while investing in the new business and that will be incremental to our growth. But we're quite comfortable that we can continue to achieve our top line growth goals in our core business. As Dave mentioned, we have a very small percentage of the market. We've seen a fantastic reaction to product changes that we've made.

Improvements accelerated through last quarter and into this quarter. And so it's really an add for us. It's the core business and the new business that we're building. And ultimately, we see that brand business as an accelerant to the growth rates that we provided in our plus 20% business on our core business.

Operator

We'll move next to Aaron Lee at Macquarie.

Aaron Lee

Macquarie Research

My question, so I just wanted to touch on the live ops events. As you run more of these types of events, have there been any takeaways or learnings that you can apply to the pipeline of events you have planned? And is there anything you can share about what you saw during the latest event just in terms of engagement, I think that would be helpful.

David Baszucki

Founder, President, CEO & Chairman of the Board

I want to highlight a unique real opportunity on Roblox and part of the engine of these live ops events is that we're a UGC platform. And some of our events are including 50 or more experiences, all of whom are participating in the event, adding event features, whether it was The Hunt, The Classic or now The Games, which is more focused on the sporting genre and the competition genre.

So here's what we see from those events. They do drive DAUs. They do drive reclamation. The Classic, for example, brought a lot of the Roblox community that has played on Roblox throughout the years back to the platform just with some of The Classic memes on that thing. They also have some other benefits as well. In addition, to what I've shared with our AI-driven discovery algorithms and curation and sponsored, they do increase visibility on a wide range of properties on the platform as well, driving content discovery and diversity.

So it's a net plus, plus. We're in a unique position to support these type of events with incredible diversity. Once again, The Games was -- is a great example of that. There's over 20 experiences that are all sports-based experiences that support kind of the -- we're in a sports 2 weeks period here, and the games is kind of reflecting that with properties on the platform.

Aaron Lee

Macquarie Research

That's great. And then turning to the CFO succession. First, Mike, amazing job over the last 6 years, best of luck and looking forward to seeing what you do next. Dave, as you start the succession process, are

you looking internally or externally? And can you talk about what you're looking for in the candidate just given how much the company has grown over the years?

David Baszucki

Founder, President, CEO & Chairman of the Board

We're just looking for another amazing CFO. Mike's been amazing, and we're going to together find another amazing one.

Operator

We'll move next to Matt Cost at Morgan Stanley.

Matthew Andrew Cost

Morgan Stanley, Research Division

So there's some commentary, I think, in the shareholder letter about the North American user growth, which, as you pointed out, is the strongest, I think, during COVID. So I guess really strong showing there, is there anything you'd call out as a driver of that growth in North America? And where do you feel you are on the penetration curve of the potential user base in U.S. and Canada?

And then on the margin, I think that the full year guidance now implies over 300 basis points of margin expansion this year, so a little bit ahead now of even that 100 to 300 basis point guide you talked about at the Investor Day. I guess what is going better now than maybe you had initially expected? And does it change your longer-term view at all on the margin potential for business?

David Baszucki

Founder, President, CEO & Chairman of the Board

Yes. I think that highlighting North America growth, both DAUs, hours and bookings we believe is a validation of what we said 3 months ago and that with heavy focus on performance, quality, heavy focus on optimizing the health of our ecosystem with search and discovery, bringing live ops forward, tuning our economy. There's amazing headroom in really 3 ways. One is, as Roblox is used more and more spontaneously, there's headroom for Roblox more and more to become an everyday product.

As Roblox gets more performing and support the broader range of content, we're seeing even north of 25-year-old, that user segment grow very, very rapidly. And then also, as we continue to add wonderful kind of tune-ups and improvements to our economy, well continuing to be premium and having the majority of our people on our platform use Roblox for free, we're continuing to see benefits on that side.

So there's a lot of headroom in North America. As I said, the gaming market is just 1 lens onto that, where we arguably have 2.5% of the bookings of that. And in addition, in the future, to get to 1 billion daily actives, there's a lot of headroom in shopping, in entertainment, in education and in social communication.

Michael Guthrie

Chief Financial Officer

And Matt, on your question on margins, your math is correct. It's really a combination of 2 things, which is -- I'm sorry, 3 things, very much in line with what we said last November. I do feel like we were pretty accurate in describing what we expected to have happened. The first is the top line growth, which obviously helps us absorb fixed costs and there's nothing like top line growth to help your margins along.

The second 1 is back to those fixed costs, as we talked about on the call and highlighted in the letter, we've seen significant leverage in those areas. It's been just an incredible job on our infra and safety teams of focusing on a KPI of cost to serve per 1,000 hours and constantly looking for ways to improve that, while increasing the quality and safety and civility of everything on our platform.

And I think the team has just done an amazing job. This is probably 1 of the best examples of using artificial intelligence and all of the compute and logic power behind that to make something in our cost structure better and more efficient and safer, but also driving the cost down. And so that cost to serve

number, which is down about 25% year-over-year is really 1 of the big drivers. That's about 400 basis points of margin improvement right there.

The second 1 is on people. And a really good metric to always look at for us is revenue per person and for any company. We've generally had very high revenue per person at Roblox. And over the last year, that number has moved back up to \$1.6 million, that's another 20% improvement over where it was a year ago. And as a result, that drove about 500 basis points of margin improvement year-over-year.

What's nice about that is I see these trends continuing, but also as we get through the year -- your comment about the full year is accurate matter, what the guidance implies is over the 300 basis points at the top. But what's nice about that is we've stepped back into a place where I think we're proving something I always talk about, which is the unit economics of this business are very favorable.

And now that we have these fixed costs have come back down, in the future, 1 good way to manage those is to look at your top line growth and basically continue to invest in the things that make you great and allowed it to innovate the business, but just investments at slightly below the top line growth rate, that will give incremental margin improvement in the future.

So we've done a lot of heavy lifting in 2024. And from '25 on, I think it gets, in some ways easier because we can both continue to invest in innovation, which is what makes this company great and sustainable and also deliver some incremental margin along the way, both operating margin and free cash.

So it's a really good -- if you look at where we were at this time last year and the improvements in the margins, it's a really good case study in what I think are the true unit economics of the business. And so yes, that's what's reflected in the guidance as you pointed out intelligently.

David Baszucki

Founder, President, CEO & Chairman of the Board

I just want to close -- bring a bunch of things that Mike said in 1 focused example and that is as we've rolled out voice on our platform, consistent with our foundation of safety and stability, we had to engineer a way to review and moderate all of that voice for safety. Our voice safety team built an AI model and a voice classifier that we are now able to run on our own infrastructure extremely efficiently.

And the quality and performance of this model is such that we open source a version of it to our community. It's not 1 of the most widely used, I think, trending audio models available on the open source communities. So it's an example of full circle efficiency running on our own infra, supporting improvements in the way our platform works.

Operator

Next would be Omar Dessouky at Bank of America.

Arthur Chu on for Omar Dessouky

This is Arthur on for Omar. I guess on certain discovery, I think last quarter, you guys mentioned that you saw some content stillness, particularly among like the top experiences. And I know you guys have been making some improvements on the discovery algorithm to help drive content freshness. I'm just curious like how these top experiences have responded to these algorithm changes? Have you seen them sort of like publishing more frequent updates? Or was it just like the longer-tail content that's getting surface more and more? And then I have a quick follow-up on the guidance, if I could.

David Baszucki

Founder, President, CEO & Chairman of the Board

Yes. I would use the -- maybe sort of the word content stillness. I would use the term nonoptimal ecosystem health based on how we surface content. And I highlighted -- I'll touch base on the algorithm, but also highlighted that we've increased the diversity of the content that's bubbling up with our today's picks, which is really intelligent curation. That's expanding into several cohorts as well. We've seen creators take advantage of our sponsored tiles.

On the core algorithm, we're getting more and more transparent with that algorithm. We're starting to share more with the community how we kind of rate and support various terms. We have seen as they result of all of this, as I mentioned, more properties in the last 3 months bubble up quickly.

I mentioned Dress To Impress, for example, which has doubled in the last quarter. And internally, we do measure diversity of content. We measure the spread of that and we have some internal indices that we've seen improved over the last 3 months.

Unknown Analyst

Understood. That's super helpful. And then just quickly on the guidance, if I just look at the midpoint of the guidance, it looks like Q4. It would look like there's a 4-point implied decel sequentially versus what the Q3 booking guidance is. Is that purely just driven by PlayStation comes from last year? Or is there some sort of organic deceleration assuming in there? Just trying to understand the puts and takes for the more.

Michael Guthrie

Chief Financial Officer

Arthur, it's, a, with the highest growth quarter of the year last year. So we're just comparing against the highest growth of 2023. And, b, as you rightly point out, it was when PlayStation launched. And so that was a good healthy bump to growth last year, and so we'll have to lap that in Q1 -- sorry, in Q4.

Operator

Next question comes from Clark Lampen at BTIG.

William Lampen

BTIG, LLC, Research Division

I wanted to come back to some of the commentary around AI-driven moderation initiatives. I'm curious, I guess, independent of that what sort of runway for either growth or optimization maybe exist in other areas across the platform, whether that's OpEx base or perhaps, I guess, separately with content creation.

Have -- on that latter point, have you guys seen the sort of desired effect and impact on platform growth and developer onboarding that you wanted with the introduction of some of that stuff within Luau tools?

David Baszucki

Founder, President, CEO & Chairman of the Board

Great question. We're running over 150 ML and AI pipelines within the company's training, tuning, building our own models. Voice is a big one. We have a lot of AI running up and down the safety stack on content moderation, communication, safety. We have shared that we are building a foundational 3D model.

And we recently, with our community, adjusted our terms of service so that our community could participate in a PII and safety compliant way in using all of that 3D data to build a 3D generative model. We've seen really good early results with a lot of our tooling, on data and texture generation, on coding assistance, but we do believe there's an enormous opportunity to build arguably one of the world's best 3D foundational creation models that will allow our creators to create by prompts, by other types of hints, so stay tuned on that. It's a big area of research, and we're just getting started there.

Safety is where we have most of our AI running now, and we are continuing to grow on top of that. And finally, I just want to get 1 other comment. Safety is an example of running massive amounts of inference on our own hardware to keep costs very low. And it's 1 of the benefits of having built our own infra with many edge data centers, lots of bandwidth around the world, is the ability to run this quantity of inference at low cost.

William Lampen

BTIG, LLC, Research Division

That's helpful. Dave, if I could -- I guess, just if we look at guidance, I sort of have a bigger picture question around sort of the implications of this. If we were to take maybe a step back and look at just sort of objectively your guidance where it was 6 months ago, even some of the Investor Day targets.

I think it's sort of hard to argue that some of the changes that you've introduced more recently haven't put the platform seemingly on stronger footing than it was 6 or 9 months ago. I'm curious if -- I guess if that's the right way of looking at it, how has this experience, I guess, over the last couple of months maybe influenced your views or perhaps risk appetite with regard to pushing through similar platform improvements, I guess, in context of potential disruptions?

David Baszucki

Founder, President, CEO & Chairman of the Board

Yes, I would say we have a fairly thoughtful balanced approach to risk. What you saw in the last -- in the second half of last year, was pushing a lot of long-range technology on our platform forward, facial animation, voice, more interactivity on our Avatar. What we shared 3 months ago is concerned that, that may have introduced some drag on the platform.

We also talked about content discovery, tuning our economy. I think it's validated that raw perf, raw quality, raw performance of our economy, raw performance of discovery, those -- just making those better and better in their own are huge growth drivers, and we'll continue to focus on them in addition to all the visionary stuff we're building.

Operator

We have time for 1 more question from Shweta Khajuria at Wolfe Research.

Shweta R. Khajuria

Wolfe Research, LLC

I have a very high-level advertising potential question for you. As you think about where you are today and your large opportunity in growing your ad revenue base, how -- what do you think is the low-hanging fruit right now, as we think about the next 1 to 3 years and that you can capitalize on? And then how do you think about 3 to 5 years that you think you'd benefit from in terms of your revenue potential?

David Baszucki

Founder, President, CEO & Chairman of the Board

My comment would be in the window of 1 to 3 years, I'm not so sure we need to go after low-hanging fruit, as opposed to big strategic opportunities. And the way we run product at Roblox is we go after systems, we go after large opportunities. What we more and more with all of the brands on our platform will continue to move towards invalidating is closed loop repetitive systems where -- whether it's for driving brand awareness, whether it's for driving digital shopping, whether it's for driving physical shopping we move more and more to -- in addition to all the incredible brand engagements, a larger volume of just repeat day-on-day advertisers on top of the platform.

And the stuff we're working on is strategic, and we don't have to do low-hanging fruit. We have the opportunity to do the right big picture stuff.

Stefanie Notaney

Senior Director of Financial & Corporate Communications

Well, thank you for joining us today, everyone. That's a wrap for us.

Operator

Thank you, and that does conclude today's conference call. Thank you for your participation. You may now disconnect.

Copyright © 2024 by S&P Global Market Intelligence, a division of S&P Global Inc. All rights reserved.

These materials have been prepared solely for information purposes based upon information generally available to the public and from sources believed to be reliable. No content (including index data, ratings, credit-related analyses and data, research, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of S&P Global Market Intelligence or its affiliates (collectively, S&P Global). The Content shall not be used for any unlawful or unauthorized purposes. S&P Global and any third-party providers, (collectively S&P Global Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Global Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON "AS IS" BASIS. S&P GLOBAL PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Global Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages. S&P Global Market Intelligence's opinions, quotes and credit-related and other analyses are statements of opinion as of the date they are expressed and not statements of fact or recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P Global Market Intelligence may provide index data. Direct investment in an index is not possible. Exposure to an asset class represented by an index is available through investable instruments based on that index. S&P Global Market Intelligence assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P Global Market Intelligence does not act as a fiduciary or an investment advisor except where registered as such. S&P Global keeps certain activities of its divisions separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain divisions of S&P Global may have information that is not available to other S&P Global divisions. S&P Global has established policies and procedures to maintain the confidentiality of certain nonpublic information received in connection with each analytical process.

S&P Global may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P Global reserves the right to disseminate its opinions and analyses. S&P Global's public ratings and analyses are made available on its Web sites, www.standardandpoors.com (free of charge), and www.ratingsdirect.com and www.globalcreditportal.com (subscription), and may be distributed through other means, including via S&P Global publications and third-party redistributors. Additional information about our ratings fees is available at www.standardandpoors.com/usratingsfees.

© 2024 S&P Global Market Intelligence.