

# Roblox Corporation Annual Report 2023

Form 10-K (NYSE:RBLX)

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**FORM 10-K**

(Mark One)

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended **December 31, 2022**

OR

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from **XXXX** to **XXXX**

Commission file number **001-04321**

**Roblox Corporation**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of incorporation or organization)

**970 Park Place, San Mateo, CA**

(Address of Principal Executive Offices)

**20-0991664**

(I.R.S. Employer Identification No.)

**94403**

(Zip Code)

**(888) 858-2569**

Registrant's telephone number, including area code

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A common stock, par value of \$0.0001 per share	RBLX	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:

None

(Title of class)

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes  No

Indicate by check mark whether the Registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports); and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the Registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post such files). Yes  No

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the Registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the Registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that has prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes  No

The aggregate market value of voting and non-voting stock held by non-affiliates of the Registrant on June 30, 2022, the last business day of the Registrant's most recently completed second fiscal quarter (based on a closing price of \$32.86 per share on June 30, 2022 as reported on the New York Stock Exchange) was approximately \$12.0 billion. Solely for purposes of this disclosure, shares of common stock held by executive officers, directors, and holders of more than 10% of our common stock of the Registrant as of such date have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of February 15, 2023, the Registrant had 553,798,118 shares of Class A common stock and 51,337,302 of Class B common stock, each with a par value of \$0.0001 per share, outstanding.

#### DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrants' definitive proxy statement relating to its 2023 annual meeting of shareholders (the "2023 Proxy Statement") are incorporated by reference into Part III of this Annual Report on Form 10-K where indicated. The 2023 Proxy Statement will be filed with the U.S. Securities and Exchange Commission within 120 days after the end of the fiscal year to which this report relates.

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## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the federal securities laws, which statements involve substantial risks and uncertainties. Forward-looking statements generally relate to future events or our future financial or operating performance. In some cases, you can identify forward-looking statements because they contain words such as “expect,” “anticipate,” “should,” “believe,” “hope,” “target,” “project,” “plan,” “goals,” “estimate,” “potential,” “predict,” “may,” “will,” “might,” “could,” “would,” “intend,” “shall,” “contemplate,” “opportunity,” or “continue” or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans, or intentions. Forward-looking statements contained in this Annual Report on Form 10-K include, but are not limited to, statements about:

- our expectations regarding future financial performance, including but not limited to our expectations regarding revenue, cost of revenue, changes in estimated paying user life, operating expenses, operating losses, and our key metrics, and our ability to achieve and maintain future profitability;
  - our ability to successfully execute our business and growth strategy, including our potential to scale and grow our international users, developers, and creators and our ability to create new revenue opportunities;
  - the sufficiency of our cash and cash equivalents to meet our liquidity needs;
  - economic, seasonal, and industry trends;
  - the functionality and economics of our platform on mobile operating systems;
  - the demand for our platform in general;
  - our ability to retain and increase our number of users, developers, and creators;
  - the impact of the COVID-19 pandemic and the easing of restrictions related to the COVID-19 pandemic, including on our users', developers', and creators' usage and spending habits;
  - the impact of inflation and global economic conditions on our operations;
  - challenges associated with our future of work plans;
  - our ability to develop enhancements to our platform, and bring them to market in a timely manner;
  - our beliefs about and objectives for future operations;
  - our ability to attract and retain employees and key personnel and maintain our corporate culture;
  - future acquisitions or investments, including infrastructure investments to increase capacity;
  - the ability for developers to build, launch, scale, and monetize experiences for users;
  - our expectations regarding our ability to generate revenue from our users;
  - our ability to convert users into developers and creators;
  - our expectations regarding new target demographics;
  - our ability to continue to provide a safe and civil online environment, particularly for children;
  - our ability to develop and protect our brand;
  - our ability to maintain the security and availability of our platform;
  - the impact of disruption in supply chains on our ability to expand or increase the capacity of the platform or replace defective equipment;
  - our business model and expectations and management of future growth, including expansion in international markets and expenditures associated with such growth;
  - our ability to compete with existing and new competitors;
  - our expectations regarding outstanding litigation and legal and regulatory matters;
  - our expectations regarding the effects of existing and developing laws and regulations, including with respect to privacy, data protection, online safety, and the regulation of Robux as a security, both in the U.S. and internationally, including how such laws and regulations may interfere with user, developer and creator access to our platform and experiences;
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- our expectations surrounding Robux as an attractive virtual currency;
- our goal to increase developer and creator earnings as much as possible;
- the impact of geopolitical events, including the war in Ukraine and its impact on economies in Europe and globally;
- our expectations regarding new accounting standards;
- our ability to achieve and maintain effective control over financial reporting;
- the impact of foreign currency exchange rates and rising interest rates on results of operations;
- our estimates related to stock-based compensation expenses;
- generating sufficient cash to service our debt and other obligations that apply to our indebtedness; and
- the increased expenses associated with being a public company.

We caution you that the foregoing list may not contain all of the forward-looking statements made in this Annual Report on Form 10-K.

You should not rely upon forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this Annual Report on Form 10-K primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, results of operations and prospects. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties and other factors, including those described in the section titled "Risk Factors" and elsewhere in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this Annual Report on Form 10-K. We cannot assure you that the results, events and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events or circumstances could differ materially from those described in the forward-looking statements.

Neither we nor any other person assumes responsibility for the accuracy and completeness of any of these forward-looking statements. Moreover, the forward-looking statements made in this Annual Report on Form 10-K relate only to events as of the date on which the statements are made. We undertake no obligation to update any forward-looking statements made in this Annual Report on Form 10-K, except as required by law. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

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## **SPECIAL NOTE REGARDING OPERATING METRICS**

We manage our business by tracking several operating metrics, including daily active users (“DAUs”), hours engaged, and average bookings per DAU (“ABPDAU”). As a management team, we believe each of these operating metrics provides useful information to investors and others. For information concerning these metrics as measured by us, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

While these metrics are based on what we believe to be reasonable estimates of our user base for the applicable period of measurement, there are inherent challenges in measuring how our platform is used. These metrics are determined by using internal data gathered on an analytics platform that we developed and operate and have not been validated by an independent third party. This platform tracks user account and session activity. If we fail to maintain an effective analytics platform, our metrics calculations may be inaccurate. These metrics are also determined by certain demographic data provided to us by the user, such as age or gender. If our users provide us with incorrect or incomplete information, then our estimates may be inaccurate.

We believe that these metrics are reasonable estimates of our user base for the applicable period of measurement, and that the methodologies we employ and update from time-to-time to create these metrics are reasonable bases to identify trends in user behavior. Because we update the methodologies we employ to create metrics, our DAUs or other metrics may not be comparable to those in prior periods. Additionally, the accuracy of these metrics may be affected by certain factors relating to user activity and systems and our ability to identify and detect attempts to replicate legitimate user activity, often referred to as botting. See the sections titled “Risk Factors—Our user metrics and other estimates are subject to inherent challenges in measurement, and real or perceived inaccuracies in those metrics may significantly harm and negatively affect our reputation and our business”.

### **DAUs**

We define a DAU as a user who has logged in and visited Roblox through our website or application on a unique registered account on a given calendar day. If a registered, logged in user visits Roblox more than once within a 24-hour period that spans two calendar days, that user is counted as a DAU only for the first calendar day. We believe this method better reflects global engagement on the platform compared to a method based purely on a calendar-day cutoff. DAUs for a specified period is the average of the DAUs for each day during that period. As an example, DAUs for the month of September would be an average of DAUs during that 30 day period.

Other companies, including companies in our industry, may calculate DAUs differently.

We track DAUs as an indicator of the size of the audience engaged on our platform. DAUs are also broken out by geographic region to help us understand the global engagement on our platform.

The geographic location data collected is based on the IP address associated with the account when an account is initially registered on Roblox. The IP address may not always accurately reflect a user’s actual location at the time they engaged with our platform. We do not collect the geographic location of our Xbox users, which are grouped into Rest of World DAUs for the purposes of our reporting. The platform data collected is based on the platform associated with the account when an account is initially registered on Roblox. The demographic data collected is self-reported to us and may not always accurately represent the actual attributes of the user.

Because DAUs measure account activity and an individual user may actively use our platform within a particular day on multiple accounts for which that individual registered, our DAUs are not a measure of unique individuals accessing Roblox. Additionally, if undetected, fraud and unauthorized access to our platform may contribute, from time to time, to an overstatement of DAUs. In many cases, fraudulent accounts are created by bots to inflate user activity for a particular developer’s content on our platform, thus making the developer’s experience or other content appear more popular than it really is. We strive to detect and minimize fraud and unauthorized access to our platform. See the sections titled “Risk Factors—Our user metrics and other estimates are subject to inherent challenges in measurement, and real or perceived inaccuracies in those metrics may significantly harm and negatively affect our reputation and our business” and “Risk Factors—Some developers, creators, and users on our Platform may make unauthorized, fraudulent, or illegal use of Robux and other digital goods or experiences on our Platform, including through unauthorized third-party websites or “cheating” programs.”

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**Hours Engaged**

We define hours engaged as the time spent by our users on the platform, which includes time spent in experiences, which refer to the titles that have been created by developers, and within platform features such as chat and avatar personalization. We calculate total hours engaged as the aggregate of user session lengths in a given period. We determine this length of time using internal company systems that track user activity on our platform, and aggregate discrete activities into a user session.

**ABPDAU**

We define ABPDAU as bookings in a given period divided by the DAUs for such period. We primarily use ABPDAU as a way to understand how we are monetizing across all of our users through the sale of virtual currency and subscriptions.

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## Part I

### Item 1. BUSINESS

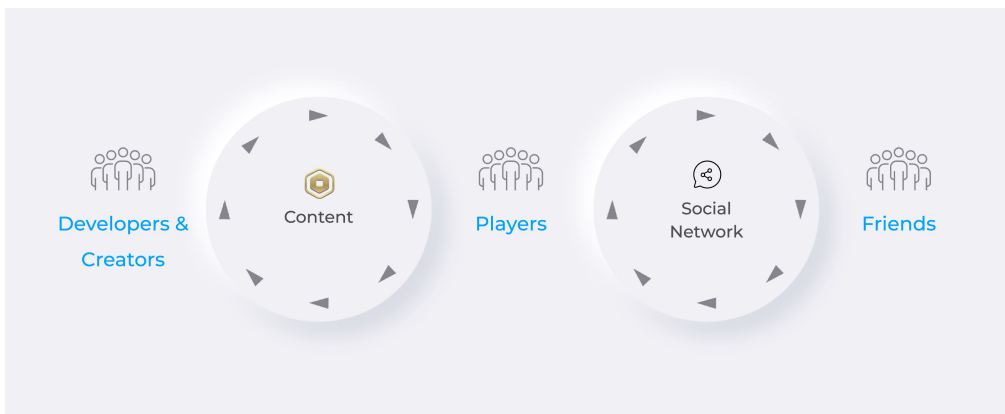
#### Overview

Roblox operates a free to play human co-experience platform where millions of people from around the world connect daily with friends (the “Roblox Platform” or “Platform”). Together, users play, learn, communicate, explore, and expand their relationships in millions of 3D digital worlds that are entirely user-generated, built by our community of millions of active developers and creators.

Our Platform consists of the Roblox Client, the Roblox Studio, and the Roblox Cloud. Roblox Client is the application that allows users to seamlessly explore 3D digital worlds. Roblox Studio is the free toolset that allows developers and creators to build, publish, and operate 3D experiences and other content accessed with the Roblox Client. Roblox Cloud includes the services and infrastructure that power our human co-experience platform.

Our mission is to connect a billion people with optimism and civility. We are building the Roblox Platform to enrich the way people connect, create and express themselves through shared experiences. We are constantly improving the ways in which our Platform supports shared experiences, ranging from how these experiences are built by an engaged community of developers and creators to how they are enjoyed and safely accessed by users across the globe.

Growth at Roblox has been driven primarily by a significant investment in technology and two mutually reinforcing network effects: content and social.



First, user-generated content, built by our community of developers and creators, powers our Platform. As developers and creators build increasingly high-quality content, more users are attracted to our Platform. The more users on our Platform, the higher the engagement and the more attractive Roblox becomes to developers and creators. With more users, more Robux are spent on our Platform, incentivizing creators to design increasingly engaging content and encouraging new developers and creators to start building on our Platform.

Second, our Platform is social. When users join, they typically play with friends. This inspires them to invite more friends, who in turn, invite their friends, driving organic growth. The more friends that each of our users has playing together on the Platform, the more valuable and engaging the Platform becomes. This drives more users to our Platform through word of mouth from their existing friends on the Platform.

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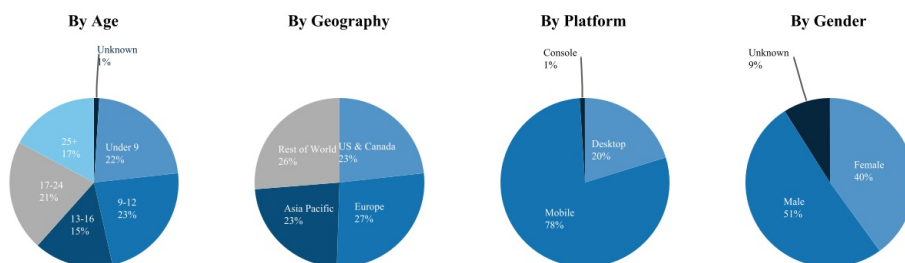
## Our Community

Roblox is powered by user-generated content from our community of developers and creators who build immersive and engaging experiences found only on Roblox, as well as the vast majority of the items for customizing avatars. Upon signing up for Roblox, users personalize their avatars by selecting body types, clothes, and gear. Users are then able to immerse themselves in the millions of developer-built experiences. Developers and creators can earn our virtual currency, Robux, through microtransactions in their experiences, by selling virtual items and through engagement-based rewards. Robux can be exchanged for real-world currency through our Developer Exchange Program. This ability to generate income encourages developers and creators to invest in more and better content that attracts more users. As users enjoy our Platform with each other and invite more friends to Roblox, developers and creators attract larger audiences and are encouraged to create even more. Many users eventually become developers and creators, nearly all developers and creators started as users, and more recently we have seen more brands join the Platform as developers and creators .

## Our Users

In the year ended December 31, 2022, 56.0 million average DAUs across over 180 countries enjoyed experiences on Roblox across mobile, desktop and console platforms. Our users are diversified across multiple dimensions, including age, geography, platform, and gender. Each day users express themselves through their avatars, explore different worlds, and engage with others in the Roblox community. In the year ended December 31, 2022, there were over 2,400 experiences that generated at least 1 million hours of engagement and over 450 experiences that generated 10 million hours of engagement or more. During the year ended December 31, 2022, users spent 49.3 billion hours engaged on our Platform, or an average of 2.4 hours per DAU each day. Over the same period, our users explored an average of over 19 different experiences on the Roblox Platform per month.

### Breakdown of Our Users<sup>(1)</sup>



### Global DAU = 56.0 million<sup>(2)</sup>

(1) Refer to "Special Note Regarding Operating Metrics" for details on operating metrics used. Percentages presented are calculated from the underlying numbers in thousands and may not add to their respective totals due to rounding.

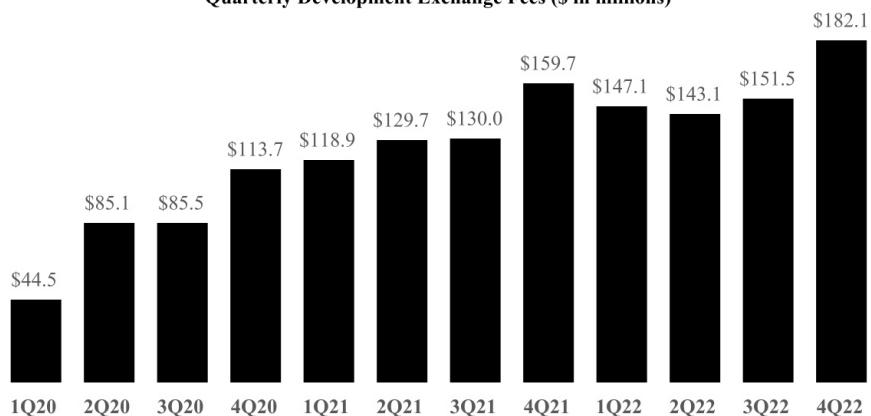
(2) Average during the year ended December 31, 2022.

## Our Developers and Creators

We offer users the ability to build engaging, immersive experiences and marketplace items that they can easily share with the Roblox community. We refer to users who create experiences and marketplace items as creators, while developers represent a subset of the creator community that create experiences on the Platform. Developers can also build and sell custom tools and 3D models to help other developers create experiences. In this way, our developers and creators enable us to offer a wide variety of experiences and avatar items and cost-effectively crowd-source our experiences, marketplace content, and development environment. In the year ended December 31, 2022, we had millions of active developers across more than 170 countries who had either created or updated an experience on the Roblox Platform. Our developer and creator community includes individuals with a wide spectrum of professional capabilities and team sizes, ranging from young students and independent hobbyists, all the way to full-time studios.

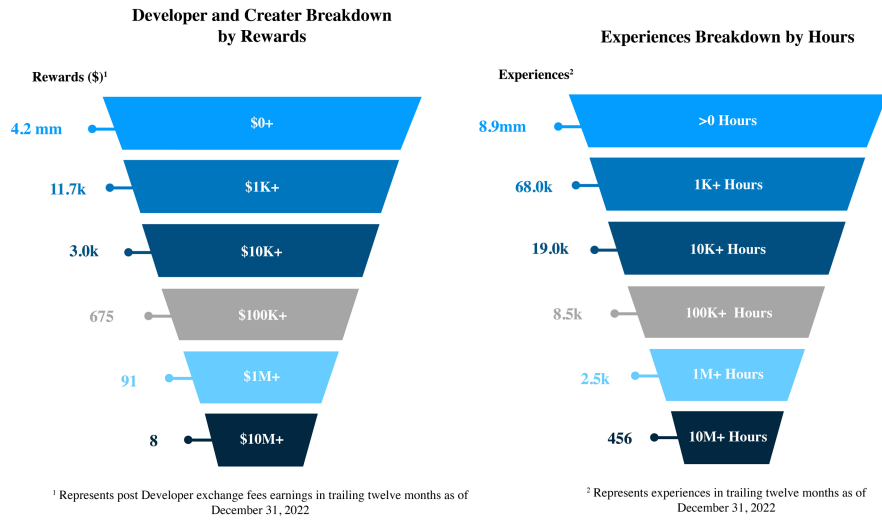
We measure the health and success of our developer and creator community based on their earnings and the user engagement in their experiences. As our Platform has scaled, our monetizing developers and creators have enjoyed meaningful earnings expansion over time, reflecting the increasing monetization of our Platform and driving a growing incentive for our developers and creators to continue to build high-quality content.

Quarterly Development Exchange Fees (\$ in millions)



Developers and creators are able to earn Robux through two main methods: (1) through microtransactions on virtual items (both in-experience and in the Avatar Marketplace) and (2) through our engagement-based reward program ("Premium Payouts") which rewards developers based on the number of hours spent in their experiences by Roblox Premium subscribers. There were nearly 4.2 million developers and creators who earned Robux on the Roblox Platform in the month ended December 31, 2022, of which over 11,000 developers and creators qualified for and were registered in our Developer Exchange Program. In order to be qualified for our Developer Exchange Program and eligible to exchange earned Robux for real-world currency, developers and creators must meet certain conditions, such as having earned the minimum amount of Robux required to qualify for the program, a verified developer account, and an account in good standing. Of such developers and creators, for the year ended December 31, 2022, over 8,800 developers and creators actually exchanged their earned Robux for real-world currency through our Developer Exchange Program. For the same period, there were over 3,000 developers and creators that earned \$10,000 in Robux or more and 675 developers and creators that earned \$100,000 or more in Robux.

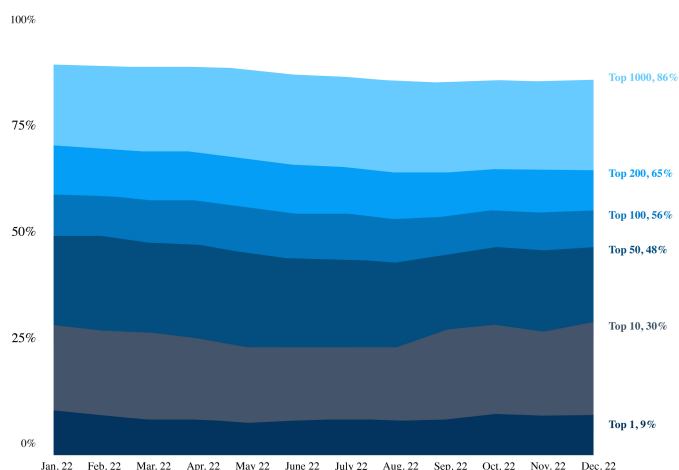
## Reward and Experiences Breakdown



We invest in our developer and creator community by providing a comprehensive set of tools and services through Roblox Studio that enable them to easily build, publish, and monetize experiences. In addition, our developer relations function focuses on providing appropriate support for all developers and creators to ensure engagement and growth in our developer and creator community. This includes creating self-guided tutorials, managing and moderating our online developer and creator forums, and operating special programs for aspiring and top developers and creators such as our annual Roblox Developers Conference.

The investment in our developer and creator community has resulted in an ever-changing offering of diverse content for our users to explore and engage in. The chart below shows the percentage of in-experience engagement within the top 1,000 experiences by month from January 1, 2022 to December 31, 2022.

## In-Experience Engagement Distribution



### Our Products and Technology

The Roblox Platform is the underlying technology and infrastructure that supports shared experiences and is composed of three elements:

- **Roblox Client**—The free application that allows users to explore 3D digital worlds.
- **Roblox Studio**—The free toolset that allows developers and creators to build, publish, and operate 3D experiences and other content accessed with the Roblox Client.
- **Roblox Cloud**—The services and infrastructure that power the human co-experience platform.

Since our founding, we have invested heavily in building the Roblox Platform, and as of December 31, 2022, 75% of our employees were dedicated to maintaining, improving, and expanding it. Our technology supports the following key characteristics of the Roblox Platform: Identity, Friends, Immersive, Low Friction, Variety of Content, Anywhere, Economy, and Safety.

#### **Identity**

The Roblox avatar system allows users to create and personalize their unique 3D identities. Our avatar technology supports a wide variety of character styles, ranging from classic “blocky” avatars with minimal motion and unrealistic proportions, to highly detailed stylized avatars with human proportions and realistic movement.

The Roblox Client features the Avatar Editor, which enables users to manipulate the size and body shape of their avatars as well as equip their avatar with clothing, gear, animations, simulated gestures, or emotes, and other accessories from the Avatar Marketplace. Our avatar system allows users to attach practically any accessory to any avatar maximizing the combinatorial variety of avatar configurations supported by the Platform. Users manipulate their avatar through a consistent set of controls for emotes, basic movement, and tap-to-move functionality which adapts to dynamically changing virtual environments. The Roblox Client normalizes camera and avatar control inputs from different device form factors, including mobile, tablet, desktop, and game console, to simplify the process of building multiplayer, multiplatform, and avatar-based experiences.

Within most experiences, avatars appear exactly how they were configured in the Avatar Editor, creating a sense of persistent identity. However, developers, when designing experiences, have the freedom to dynamically reconfigure all or part of the participating avatars to meet the specific needs of the developer’s virtual experience.

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## ***Friends***

The Roblox Client allows users to connect through various means, including matching their phone number and email address, detecting nearby players, or simply meeting in 3D experiences. The social graph created by these connections is stored in the Roblox Cloud and requires mutual opt-in to avoid unwanted communications.

The social graph is central to human co-experience. When a user chooses to join an experience, the Roblox Cloud is designed to automatically place that user into the same virtual environment as others connected through the social graph. In addition, most developers allow users to purchase private servers that allow groups of friends to share an exclusive, invite-only instance of a 3D experience.

The Roblox Platform supports text-based chat among users sharing the same 3D experience and between users connected through the social graph. For safety, every text message passes through filters that block personally identifiable information, profanity, and offensive language. Using advanced pattern matching and machine learning, our chat filters are constantly evolving and process billions of messages per day.

## ***Immersive***

The Roblox Platform allows developers to build deeply immersive 3D environments where users can share synchronous experiences with others, independent of where they may be physically. The Roblox Client provides users with intuitive camera and input controls that are tuned for each device's form factor. By abstracting these controls from developers, the process of building cross platform 3D experiences is greatly simplified.

Developers use Roblox Studio to easily build 3D experiences that are then rendered and simulated on the Roblox Platform. The Roblox Client leverages efficient low-level hardware-specific device APIs, such as Vulkan for Android devices and Metal for Apple devices, to efficiently render those experiences. Each experience combines thousands of meshes, textures, 3D models, and animations.

Each 3D experience is simulated in the Roblox Cloud with a custom physics engine built for rigid body and constraint-based physics. Using a combination of novel mathematical formulations and aggressive optimization, the engine can simulate a large number of complex mechanisms at high levels of fidelity. To achieve an optimal balance between latency, scale, and consistency, computations for the simulation are distributed across Roblox Clients and the Roblox Cloud.

Assets that make up the 3D experience are stored in a persistent tree hierarchy that is the foundation for collaborative editing and interactive multiplayer experiences. The hierarchy can be modified through APIs which serve as a powerful abstraction layer making it easy to create experiences that are consistent across all Roblox Clients, regardless of device type. During simulation, this data is dynamically replicated within the Roblox Cloud and selectively transmitted to Roblox Clients. The Roblox Client then constructs and renders its own view of the 3D experience.

## ***Low Friction***

The Roblox Platform gives users the ability to interact with experiences almost instantly, on most popular client devices, and from anywhere in the world over existing broadband and cellular networks. As of December 31, 2022, the Roblox Client operates on iOS, Android, PC, Mac, and Xbox, and supports VR experiences on PC using Oculus Rift and HTC Vive headsets. With Roblox, developers can build an experience once and then expect that experience to operate consistently on all supported devices.

The Roblox Client is designed for the rapid movement of users between experiences. Almost immediately upon launching a new experience, the Roblox Client will begin simulating and rendering the virtual world using a partial representation of the environment at a low level of detail. As more and higher fidelity assets are received by the Roblox Client, the fidelity of the experience automatically improves.

Assets are delivered to the Roblox Client through geographically distributed content delivery networks. The Roblox Cloud determines the format, level of detail, and priority of each asset sent in order to optimize for the capabilities and bandwidth available to the client device. For large experiences, the Roblox Client can dynamically purge unnecessary assets from device memory, ensuring that a single large experience can be played simultaneously on different devices regardless of device memory capacity.

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The Roblox Cloud is central to enabling low-latency, responsive gameplay within 3D environments having millions of concurrent players. When a user joins a 3D experience, the Roblox Cloud assigns that user to a particular game instance based on, among other considerations, the user's social graph, geographic location, spoken language, and age group. When the number of users in a given experience increases, the Roblox Cloud automatically spawns additional server instances necessary to support additional users. The Platform optimally packs these instances onto physical servers and allocates compute resources based on the resource requirements of each instance. Developers can choose to allow up to 100 users within an instance, but may choose fewer to optimize their experience.

Developers have access to high-speed data stores in the Roblox Cloud where information about users and each simulated environment can be persisted. This, along with other services hosted in the Roblox Cloud, make it possible for a developer to build, launch, scale and monetize a 3D experience without any additional tools or services.

The majority of services operated by the Roblox Cloud are hosted in Roblox managed data centers. For some of our high-speed databases, scalable object storage, and message queuing services we leverage Amazon Web Services. All servers tasked with simulating the virtual environment and optimizing assets for Roblox Clients are owned by Roblox and operate from data centers and regional edge data centers widely distributed across 23 cities in North America, Asia, and Europe. As of December 31, 2022, the Roblox Cloud uses over 100,000 servers. The Roblox Cloud is designed to be fault tolerant and prepared for disaster recovery and we continue to expand into multiple data centers within and across geographic regions to improve reliability and fault tolerance.

Data centers in the Roblox Cloud are linked through a high-performance dedicated backbone network bypassing the public internet for server-to-server calls and we operate under an open peering policy where we have direct interconnection with Internet providers globally. Operating our own network maximizes performance and increases the immersiveness experienced by our users.

### ***Variety of Content***

Developers and creators build nearly all of the content for the Roblox Platform. Their efforts contribute to an expanding content library that includes over 15 million active experiences and millions of items for the Avatar Marketplace during the year ended December 31, 2022.

Developers build, publish, and operate 3D experiences with Roblox Studio, a free suite of tools accessible to all skill levels, from novice to professional. Teams can work together using built-in access control management and collaborative editing. Once content is built, it can be replicated and shared across multiple experiences giving developers the ability to scale their efforts and make rapid updates.

In addition to constructing 3D objects and environments, developers can script complex behaviors into their virtual experience with Roblox Luau. Based on Lua, an interpreted light-weight programming language popular in the gaming industry, Roblox Luau adds an optional static type system and a highly optimized interpreter that maximizes performance on Roblox Clients and in the Roblox Cloud. Using scripts, developers can modify the environment, control object behavior, and create new ways for users to interact with the virtual environment. Within Roblox Studio, developers have access to a powerful script editor which supports autocomplete, debugging, and the ability to emulate the Roblox Client running on supported devices.

Developers can share their work with other developers through the Studio Marketplace. The Studio Marketplace drives collaboration within our developer community, accelerates creation of new experiences, and provides additional ways for developers to monetize their work. As of December 31, 2022, the Studio Marketplace contained millions of models, meshes, textures, scripts, audio clips, developer tools, and packaged combinations of these items.

We provide developers with reference material, tutorials, community forums, and analytics to build their creations. Creator Hub includes reference material, API documentation, and tutorials for developers. Developer Forum is a private forum for qualified developers which provides insight on new features, community initiatives, recruitment opportunities, bug reporting, and direct engagement with our employees. Edu Hub provides content for educators, students, and parents who are using Roblox as a tool to learn coding, 3D design, and digital civility. All developers on the Roblox Platform have access to dashboards that show daily visits and earned Robux. For top developers we provide more robust reporting.

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Within the Roblox Client, users find experiences through personalized content recommendations and search. Recommendations are based on past user behavior, the social graph, and basic demographic information collected at signup. An emphasis is always placed on experiences where someone you are connected with is present. The search engine automatically learns user intent, accounting for misspellings, slang, and multilingual queries.

### **Anywhere**

The Roblox Platform serves a global audience. In the year ended December 31, 2022, developers from over 170 countries and users spanning over 180 countries accessed our Platform.

Localization and compliance systems embedded within the Roblox Client and Roblox Cloud help to lower cultural barriers and enable our developers to meet regional requirements with little to no additional effort.

Developers can build experiences in their native language and then, using machine translation and advanced pattern recognition, the Roblox Cloud automatically translates those experiences into 15 languages including simplified Chinese, traditional Chinese, French, German, Indonesian, Italian, Japanese, Korean, Polish, Portuguese, Russian, Spanish, Thai, Turkish, and Vietnamese. Developers also have the ability to customize all or part of their translations if needed.

To meet an evolving global regulatory environment, the Roblox Client can adjust a user's experience and available content based on their age, device type, current location and where the client application was obtained. This allows Roblox to dynamically apply relevant content filters, anti-addiction rules, payment limits, and parental consent requirements.

### **Economy**

Roblox has a vibrant economy built on a currency called Robux, which can be purchased through the Roblox Client and Roblox website or through prepaid cards purchased via online and physical retailers. Roblox works with multiple payment and prepaid card processors including Amazon, Apple, BlackHawk, ePay, Google, Incomm, PayPal, Stripe, Vantiv, and Xsolla. Roblox relies on payment processor partners to store account information.

Users can also acquire Robux through a monthly subscription to Roblox Premium. With a subscription, users receive discounted Robux along with access to exclusive or discounted items in the Avatar Marketplace. Developers may also choose to offer additional benefits to active Premium subscribers in the form of discounted virtual merchandise or access to exclusive in-experience features.

Developers and creators earn Robux by selling access to virtual content. Developers can also earn Robux by driving engagement of Roblox Premium subscribers through Premium Payouts. When Roblox Premium subscribers spend time in a developer's experience, that developer earns a prorated share of the user's monthly subscription fee. Premium Payouts incentivize developers to invest in the engagement of their experiences. The payout system is designed to protect against fraud and computes a developer's earnings potential on a daily basis.

Roblox allows developers and creators to convert earned Robux into the real-world currency of their choice through our Developer Exchange Program. All Developer Exchange Program requests are reviewed on a risk-based approach to mitigate fraud and money laundering. Developers and creators participating in the program are required to create an account with Tipalti, our partner which collects tax information, ensures regulatory compliance, and executes the payouts.

### **Safety**

Multiple systems are integrated into the Roblox Platform to promote civility and ensure the safety of our users. These systems are designed to enforce our policies, protect users' personal information, and abide by local laws. We leverage text-filtering, content moderation systems, and automated systems to proactively identify behaviors that may violate our policies.

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Content submitted by developers and creators, including images, models, meshes, and audio, goes through a multi-step review process before appearing on the platform. Images are evaluated for Child Sexual Abuse Material using PhotoDNA with flagged images automatically reported to the National Center for Missing and Exploited Children. Audio files are scanned for IP infringement using Audible Magic. Finally, assets which have not already been automatically removed are subject to a 100% human review policy. During the year ended December 31, 2022, our human review team evaluated over 200 million assets. Assets refer to images, meshes, audio files, and video files that developers upload to Roblox to include in their experiences and in the Avatar Marketplace.

When experiences are published or updated on the Roblox Platform, they are evaluated by a suite of tools that identify problematic language, potential bypasses to our safety systems, and content that falls outside our policies. A human review team is continuously operating to evaluate flagged experiences. The Roblox Platform includes a suite of anti-intruder technology leveraging machine learning, throttles, and circuit breakers to block automated bot attacks and mitigate the impact of humans who attempt to spam users and disrupt the service. We also leverage automated penetration testing, a bug bounty program, code threat assessments, and vulnerability to management tools to ensure the safety of our users and the Platform.

Roblox operates a customer service portal that provides self-help information along with ways to contact Roblox via email or from within the Roblox Client. In the year ended December 31, 2022, Roblox responded to millions of customer inquiries and had a human respond to actionable safety issues on average within less than 15 minutes of their submission.

## **Safety and Digital Civility**

We aspire to build a safe and civil online society. We have no tolerance on our Platform for content or behavior that violates our Community Standards. Safety and civility systems are built into our Platform and apply to every experience. In many instances, our systems extend beyond minimum regulatory requirements.

Our Platform is designed to comply with the Children's Online Privacy Protection Act ("COPPA") and the General Data Protection Regulation ("GDPR") regulations. We work closely with regulators, authorities, and safety groups in many countries. We endeavor to promptly report any suspected child exploitation or abuse materials to the relevant authorities.

We partner with leading global organizations focused on child and internet safety, including the WeProtect Global Alliance, Digital Wellness Lab, Family Online Safety Institute, UK Safer Internet Centre, and kidSAFE, among others. We are also a member of various organizations, such as the Association for United Kingdom Interactive Entertainment and the Technology Coalition, with a goal of cross-industry collaboration, knowledge and technology exchange in areas of user safety, and child safety. As a member of the Technology Coalition, we are committed to providing transparency and promoting child safety online. We continue to work diligently with other digital platforms to report bad actors and inappropriate content so that they can also take appropriate actions on their platforms.

## **Our Trust & Safety Systems**

We use machine scanning and a dedicated team of human moderators to review content, including images, sound, and video, uploaded into our Platform. Our advanced machine scanning algorithms also review and monitor communications that flow through Roblox to block and protect users from inappropriate behavior, such as questions about personal information and instructions on how to connect on less protective third-party chat applications. The algorithms in our chat filters are age-sensitive: they monitor both what users can say and see based on their ages.

Throughout our site and in-experience, we provide our users with the ability to report activity that they find objectionable. Users can also block or mute players with whom they do not want to interact with. We also provide parents with customizable parental controls to limit or disable online chat or to restrict access to a curated list of age appropriate experiences.

We have a dedicated team and thousands of trust & safety agents protecting our users by focusing on detecting inappropriate content and behavior 24/7 through a combination of machine scanning and human moderation. We take swift action to address any content or developer or creator that violates our terms of use once detected. We have a Safety Advisory Board, made up of global industry experts that advise on the best practices to protect our community.

We continue to invest in technology and people to combat bad actors who attempt to undermine our efforts to connect millions of people. Our priority remains the safety and digital civility of our community.

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## **The Roblox Economy**

We support our developer and creator community by giving them the tools to build, publish, operate, and monetize content. Our economy enables developer and creators to generate income through Roblox. There were nearly 4.2 million developers and creators who earned Robux on the Roblox Platform in the month ending December 31, 2022, of which over 11,000 developers qualified for and were registered in our Developer Exchange Program and therefore met certain conditions, such as having earned the minimum amount of Robux required to qualify, having a verified developer account, and having an account in good standing, and were therefore eligible to exchange their earned Robux for real-world currency. Of such developers and creators, for the year ended December 31, 2022, over 8,800 developers and creators actually exchanged their earned Robux for real-world currency through our Developer Exchange Program. For the same period, there were over 3,000 developers and creators that earned \$10,000 or more in Robux and 675 developers and creators that earned \$100,000 or more in Robux.

### ***Business Model***

When users sign up for Roblox, they can create an avatar and explore the vast majority of our experiences for free, although the business model for any given experience is ultimately up to its developer. Most free experiences allow users to spend Robux by purchasing experience-specific enhancements. Users can also use Robux to obtain items such as clothing, accessories and emotes, from our Avatar Marketplace. Roblox retains a portion of every Robux transaction and distributes the rest to developers and creators. Robux can only be purchased from us at a price set by us, and can only be spent within our Platform. Other than daily and monthly limitations to prevent fraud, there is no cap on the number of Robux that any user or users in the aggregate can purchase. Robux have no monetary or intrinsic value outside of our Platform and can only be converted to real-world currency through our Developer Exchange Program. We are aware that some users seek to use unauthorized third-party websites to exchange Robux for real-world currency which is not permitted under our terms of use. We regularly monitor and screen usage of our Platform with the aim of identifying and preventing these activities, as well as regularly send cease-and desist letters to operators of third-party websites offering fraudulent Robux or digital goods offers.

### ***How Users Purchase Robux***

Users can purchase Robux in two ways, as one-time purchases or via Roblox Premium, a subscription service that is billed monthly and includes discounted Robux, access to exclusive in-experience benefits, exclusive and discounted marketplace items and the ability to buy, sell and trade certain Avatar items. Roblox accepts payments through app stores, credit cards, and prepaid cards. The average price for a Robux for the year ended December 31, 2022 was \$0.01.

### ***How Developers and Creators Earn Robux***

Robux are considered "earned" if a developer or creator receives them as payments for a bona fide third party transaction for virtual goods through the Roblox Platform. We currently offer developers and creators four mechanisms to earn Robux:

- sale of access to their experiences and enhancements in their experiences;
- Premium Payouts, which reward developers for the amount of time that Premium subscribers spend in their experiences;
- sale of content and tools between developers; and
- sale of items to users through the Avatar Marketplace.

As users purchase and subsequently spend Robux on Roblox, developers of the virtual item receive 30% of the Robux, the seller or distributor of the virtual item receives 40% of the Robux, and the Platform receives 30% of the Robux. Oftentimes, the developer of the virtual item is also the seller of that item. Developers that sell their own creations within their experiences receive 70% of the Robux spent, as they are acting both as the developer and the seller. Developers also receive 70% of the Robux spent for items that appear in the Studio Marketplace. Developers that make their virtual items available through the Avatar Marketplace receive 30% of the Robux spent, as Roblox is both the seller and the platform for these transactions.

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Earned Robux are deposited into the virtual accounts of the developers and creators, who can convert Robux into real-world currency at an exchange rate which is determined by Roblox in its sole discretion of 1 Robux to \$0.0035 as of December 31, 2022, if they qualify for and are registered in our Developer Exchange Program. Acceptance into the Developer Exchange Program is subject to certain requirements, such as earning the minimum amount of Robux required to qualify, having a verified account, and having an account in good standing. In 2022, over 11,000 developers and creators that were qualified and registered in our Developer Exchange Program earned \$623.9 million, up from over 7,000 of such developers and creators who earned \$538.3 million in 2021.

Our developers and creators do not always cash out their Robux into real-world currency. Some choose to reinvest their Robux into developer tools from the Studio Marketplace, promote their experiences through our internal ad network, or spend the Robux as any other user would.

## Our Growth Strategies

We are continually innovating the Roblox Platform, including making significant investments in high fidelity avatars, more realistic experiences, 3D spatial audio technology, and other social features. We believe that these innovations have the potential to transform how people express themselves, socialize, communicate, play, learn, work, and transact together around the world. We are focused on the following key growth strategies:

- **Platform Extension:** We believe the investments we are making will facilitate more immersive and engaging experiences on Roblox to expand our Platform beyond play into new verticals such as brand partnerships, education and communication. For example, in 2022, brands including Gucci, Nike, Chipotle, the National Football League, Warner Brothers and Netflix launched their own experiences and/or updates on the Roblox Platform, enabling them to connect and engage with audiences in an entirely new way. In addition, the Roblox Platform was used to host virtual concerts, listening parties and album launch parties with musical artists including The Chainsmokers, Soccer Mommy, Elton John and Mariah Carey.
- **Age Demographic Expansion:** As a result of Roblox Platform innovations, developers and creators are now able to build higher quality experiences and content that appeals to an older age demographic. We believe there is significant potential for us to increase our penetration and engagement across all age demographics. We ultimately aim to be a brand that serves all ages. An early sign of what is possible: DAUs from our 17 to 24-year-old user age group grew faster than any other age group in the year ended December 31, 2022.
- **International Reach:** We believe there is significant potential for us to grow the global reach of our Platform. We believe some of that will occur by the same organic, word of mouth user, creator, and developer growth that we have seen in markets like the U.S., Canada, and the United Kingdom. In addition, we are investing in technology that will also enhance our growth around the world. For example, we believe that features such as automated translation and built-in regional compliance will enable us to scale usage in global markets, allowing developers to publish in multiple languages and allowing users to communicate with each other even when they speak different languages.
- **Monetization:** We believe there is significant potential to increase monetization on our Platform. First, we are actively working with our developer and creator community to help them improve their monetization. Second, we believe Roblox Premium, our subscription service, will increase our conversion of our free users to paying users and the retention of our paying users. Third, we expect to work with leading brands to build unique commerce opportunities and help them reach their audiences at scale within Roblox experiences through a new form of advertising called immersive ads. Generally speaking, immersive ads consist of image ads that resemble interactive billboards that can be placed into an experience, and immersive portal ads, which will teleport a user to the brand's experience and back again. Our immersive ads system is designed to be native to the experience in which it is placed and will provide unique commerce opportunities for brands on the Platform. Immersive ads will also provide developers and creators with another monetization method on the Platform.

## Brand and Marketing

Our go-to-market approach is driven by the strength and continued enhancement of our brand, organic adoption across our user, creator and developer communities, and an influencer-based marketing strategy, with a goal demonstrating the Platform's wide-ranging appeal across demographics, geographies, and interests.

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Users build a direct relationship with the Roblox brand by establishing a single identity and creating their social graph. Users are able to navigate across an integrated universe of experiences on our Platform and engage on the Platform with other users in their social graph. We believe this approach helps to create a flywheel that brings new users to the Platform, and promotes loyalty and engagement.

We have millions of experiences to choose from on Roblox, and developers continue to build new experiences on the Platform and publish them daily. As experiences on the Platform grow in popularity, this success accrues to the Roblox brand and serves to draw in new audiences. Our approach is to amplify these experiences on both earned and owned channels which builds awareness and affinity for Roblox. This approach includes educating our creators, users, and brands on the Platform's capabilities and innovations, all of which elevates each stakeholder's experience.

We believe safety and civility is an integral and differentiating part of our brand. We have invested heavily in creating a safe and civil platform, which has allowed us to both grow and retain our user base.

### ***Highly Efficient Marketing Model***

We operate a highly efficient marketing model. Our approach is almost entirely organic, with our user, creator and developer adoption driven by mutually reinforcing content and social network effects. We also leverage our influencer community to increase brand awareness and our reach across all age demographics.

### **Competition**

We compete for both users, developers, and creators. We compete to attract and retain our users' attention on the basis of our content and user experiences. We compete for users and their engagement hours with global technology leaders such as Amazon, Apple, Meta Platforms, Google, Microsoft, and Tencent, global entertainment companies such as Comcast, Disney, and ViacomCBS, global gaming companies such as Activision Blizzard, Electronic Arts, Take-Two, Epic Games, Krafton and Valve, online content platforms including Netflix, Spotify, and YouTube, as well as social platforms such as Facebook, TikTok, Instagram, Pinterest, Twitter, Reddit, Discord, and Snap. We are able to compete for these users based on our variety of content, personalized user experience, and various engaging and social features.

We rely on developers and creators to create the content that leads to and maintains user engagement (including maintaining the quality of experiences). We compete to attract and retain developers and creators by providing them with the free tools to easily build, publish, operate, and monetize content. We compete for developers and creators and engineering talent with gaming platforms such as Epic Games, Unity, Meta Platforms, and Valve Corporation, who provide developers and creators the ability to create or distribute interactive content. We are able to compete for these developers and creators because of our comprehensive offering to build, publish, and operate experiences on our Platform, our free and easy-to-use technology, our broad user reach, our economic rewards system, our brand, our reputation for innovation, our developer and creator-centric culture, and our mission.

### **Seasonality**

We have historically experienced seasonality in monetization on our Platform and tend to generate higher levels of bookings in the fourth quarter of the year primarily due to the end-of-year holiday season. We also typically see higher levels of engagement in the months of June, July, and August, which are summer periods in the northern hemisphere, and lower levels of engagement in the post-summer months of September, October, and November. While bookings are typically strongest in the fourth quarter, this trend may not be reflected in the revenue recognized in the same period due to the timing of our revenue recognition (see section "Revenue Recognition" within Item 8. Financial Statements and Supplementary Information, Note 1, "Overview and Summary of Significant Accounting Policies", for further discussion on the Company's revenue recognition policy). Our significant user and monetization growth, along with the COVID-19 impact, have partially masked these trends in recent historical periods, particularly in 2020, and the seasonal impacts may be more pronounced in the future or different altogether.

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## Security, Privacy, Data Protection and Regulatory Matters

We are subject to a number of U.S. federal and state and foreign laws and regulations that involve matters central to our business. These laws and regulations may involve privacy, data protection, security, rights of publicity, content regulation, intellectual property, competition, protection of minors, consumer protection, communication, credit card processing, taxation, anti-bribery, anti-money laundering and corruption, economic or other trade prohibitions or sanctions or securities law compliance or other subjects. Many of these laws and regulations are still evolving and being tested in courts and could be interpreted and applied in a manner that is inconsistent from country to country or state to state and inconsistent with our current policies and practices and in ways that could harm our business. In addition, the application and interpretation of these laws and regulations often are uncertain, particularly in the new and rapidly evolving industry in which we operate. The costs of complying with these laws and regulations are high and likely to increase in the future, particularly as the degree of regulation increases, our business grows and our geographic scope expands. Further, the impact of these laws and regulations may disproportionately affect our business in comparison to our peers in the technology sector that have greater resources. Any failure on our part to comply with these laws and regulations may subject us to significant liabilities or penalties, or otherwise adversely affect our business, financial condition or operating results. It is imperative that we secure the creative assets, performance and user data that are critical to our business. We devote considerable resources to our security program and regularly test the security of our services with the intent to ensure that user assets are securely stored and separated. We make it easy for content developers and creators to securely build and distribute their content on our Platform.

We rely on a variety of statutory and common-law frameworks and defenses relevant to the content available on our service, including the Digital Millennium Copyright Act ("DMCA"), the Communications Decency Act, and the fair-use doctrine in the U.S., and the Electronic Commerce Directive in the European Union ("EU"). However, each of these statutes is subject to uncertain or evolving judicial interpretation and regulatory and legislative amendments. In addition, pending or recently adopted legislation in the EU may impose additional obligations or liability on us associated with content uploaded by users to our Platform. If the rules, doctrines or currently available defenses change, if international jurisdictions refuse to apply protections similar to those that are currently available in the U.S. or the EU, or if a court were to disagree with our application of those rules to our service, we could be required to expend significant resources to try to comply with the new rules or incur liability, and our business, revenue and financial results could be harmed.

We are also subject to U.S. federal and state and foreign laws and regulations regarding privacy and data protection, including with respect to the collection, storage, sharing, use, processing, transfer, disclosure, and protection of personal data. For example, the California Consumer Privacy Act ("CCPA"), went into effect on January 1, 2020. The CCPA requires covered companies to, among other things, provide new disclosures to California consumers, and afford such consumers new abilities to opt-out of the sale of personal information. Additionally, the California Privacy Rights Act ("CPRA") is effective as of January 1, 2023. The CPRA significantly modifies the CCPA, potentially resulting in further uncertainty and requiring us to incur additional costs and expenses in an effort to comply. Similar legislation has been proposed or adopted in other states. Aspects of the CCPA and these other state laws and regulations, as well as their enforcement, remain unclear, and we may be required to modify our practices in an effort to comply with them. California has also enacted the California Age-Appropriate Design Code Act ("ADCA"), which will take effect on July 1, 2024. The ADCA implements into law certain principles taken from the U.K.'s Age Appropriate Design Code ("AADC"), which went into effect in September 2021, and imposes substantial new obligations upon companies that offer online services, products, or features "likely to be accessed" by children, defined under the ADCA as anyone under 18 years of age. In addition, foreign data protection, privacy, consumer protection, communication, content regulation, and other laws and regulations may be more restrictive and burdensome. For example, GDPR imposes stringent operational requirements for entities processing personal information and significant penalties for non-compliance. Under GDPR, fines up to 20 million Euros or up to 4% of the annual global revenues of the infringer, whichever is greater, can be imposed for violations. In addition, in July 2020, the Court of Justice of the European Union ("CJEU"), struck down the EU-U.S. Privacy Shield program, which was used by 5,000 companies to transfer data from the EU to the U.S. The court ruling also suggested that the propriety of Standard Contractual Clauses ("SCCs"), which are an alternate method of data transfer from the European Economic Area ("EEA") to the U.S., may be challenged in the future. On September 8, 2020, the Federal Data Protection and Information Commissioner of Switzerland issued an opinion concluding that the Swiss-U.S. Privacy Shield did not provide an adequate level of protection for data transfers from Switzerland to the U.S. pursuant to Swiss data protection law. In June 2021, reflecting GDPR and the CJEU's ruling with respect to the SCCs, the European Commission issued two new sets of SCCs, which required all existing SCCs to be updated by December 2022. In addition, we are monitoring developments with the EU's Digital Services Act, which came into force on November 16, 2022 and will become fully applicable on February 17, 2024. The evolving regulatory landscape internationally results in uncertainty and could require us to incur additional costs and expenses to comply.

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Children's privacy has also been a focus of recent enforcement activity and subjects our business to potential liability that could adversely affect our business, financial condition or operating results. The Federal Trade Commission and state attorney generals in the U.S. have in recent years increased enforcement of COPPA, which requires companies to obtain parental consent before collecting personal information from children under the age of 13. In addition, GDPR prohibits certain processing of the personal information of children under the age of 13-16 (depending on the country) without parental consent. The CCPA requires companies to obtain the consent of children in California under the age of 16 (or parental consent for children under the age of 13) before selling their personal information. Actual or perceived noncompliance with the AADC may result in audits or other proceedings by the United Kingdom's Information Commissioner Office, the body set up to uphold information rights in the United Kingdom, and other regulators in the EEA or Switzerland, as noncompliance with the AADC may indicate noncompliance with applicable data protection law. Although we take reasonable efforts to comply with these laws and regulations, we may in the future face claims under COPPA, the GDPR, the CCPA, the ADCA, and the AADC, or other laws or actual or asserted obligations relating to children's privacy. There are also a number of legislative proposals pending before the U.S. Congress, various state legislative bodies and foreign governments concerning content regulation and data protection that could affect us if enacted in the future.

We take a variety of technical and organizational security measures and other measures designed to protect our data, including data pertaining to our users, employees and business partners. Despite measures we put in place, we may be unable to anticipate or prevent unauthorized access to such data.

Non-compliance with any applicable laws and regulations could result in penalties or significant legal liability. Although we take reasonable efforts to comply with all applicable laws and regulations, there can be no assurance that we will not be subject to regulatory action, including fines, in the event of an incident or as the result of a regulatory investigation. We or our third-party service providers could be adversely affected if legislation or regulations are expanded to require changes in our or our third-party service providers' business practices or if governing jurisdictions interpret or implement their legislation or regulations in ways that negatively affect our or our third-party service providers' business, results of operations, or financial condition.

Government authorities outside the U.S. may also seek to restrict access to or block our Platform, prohibit or block the hosting of certain content available through our Platform or impose other restrictions that may affect the accessibility or usability of our Platform in that country for a period of time or even indefinitely. In addition, some countries have enacted laws that allow websites to be blocked for hosting certain types of content or may require websites to remove certain restricted content. Our privacy policy and terms and conditions of use describe our practices concerning, the use, transmission, and disclosure of user information and are posted on our website.

For additional information, please see the sections titled "Risk Factors—Risks Related to Our Business Generally—If the security of our Platform is compromised, it could compromise our and our developers', creators', and users' proprietary information, disrupt our internal operations and harm public perception of our platform, which could cause our business and reputation to suffer," "Risk Factors—Risks Related to Our Business Generally—We anticipate that our ongoing efforts related to privacy, data protection, safety, data security, and content review will identify additional instances of misuse of user data or other undesirable activity by third parties on our platform" and "Risk Factors—Risks Related to Government Regulations—Because we store, process, and use data, some of which contains personal information, we are subject to complex and evolving federal, state, and international laws and regulations regarding privacy, data security, data protection, content, and other matters. Many of these laws and regulations are subject to change and uncertain interpretation, and could result in investigations, claims, changes to our business practices, increased cost of operations, and declines in user growth, retention, or engagement, any of which could significantly harm our business."

## **Intellectual Property**

Our intellectual property is an important aspect of our business, and our success depends in part on our ability to enforce and defend our intellectual property rights. We rely on a combination of patents, copyrights, trademarks, trade secrets, know-how, license agreements, contractual provisions, non-disclosure agreements, and confidentiality procedures to establish and protect our intellectual property rights. In addition to the protection provided by our intellectual property rights, we maintain a policy requiring our employees, consultants, and other third parties to enter into confidentiality and proprietary rights agreements to control access to our intellectual property.

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As of December 31, 2022, we owned more than 90 U.S. patents relating to aspects of our actual or contemplated operations and technologies. Our issued patents are scheduled to expire between 2025 and 2041. We also had more than 180 pending patent applications in the U.S. and abroad. There can be no assurance that each of our patent applications will result in the issuance of a patent. In addition, any resulting issued patents may have claims narrower than those in our patent applications. We seek to protect our proprietary inventions relevant to our business through patent protection; however, we are not dependent on any particular patent or application for the operation of our business.

We have registered “Roblox,” “Robux,” and our corporate logo as trademarks in the U.S. and other jurisdictions. In total, we are the owner of over 420 trademark filings and have over 60 trademark applications in the U.S. and foreign countries as of December 31, 2022. There can be no assurance that each of our trademark applications will result in the issuance of a trademark or that each resulting trademark registration will be able to be maintained. As of December 31, 2022, we were the registered holder of 1,675 domestic and international domain names. We continually monitor the registration of our domain names, trademarks, and service marks in the U.S. and in certain locations outside the U.S.

Despite our efforts, we may not be able to obtain or maintain sufficient protection for or successfully enforce our intellectual property. Any current and future patents, trademarks and other intellectual property or other proprietary rights we own or license, or otherwise have a right to use, may be contested, circumvented or found unenforceable or invalid. Our existing and future patents, copyrights, trademarks, trade secrets, domain names and other intellectual property rights may not provide us with competitive advantages, distinguish our products from those of our competitors or prevent competitors from launching comparable products. We may also be dependent on third-party content, technology and intellectual property in connection with our business. Further, we may not be able to prevent third parties from infringing, diluting or otherwise misappropriating or violating our intellectual property rights, and we may face challenges to the validity or enforceability of our intellectual property rights. We cannot guarantee that our business does not and will not infringe or misappropriate the rights of third parties. We expect to continue to face allegations from third parties, including our competitors and “non-practicing entities,” that we have infringed or otherwise violated their intellectual property rights. While we do not anticipate that these allegations, if they were to result in litigation against us, would have a materially adverse impact on our business, financial condition or operating results, there can be no guarantee that such lawsuits would not have a materially adverse impact on us. Further, certain federal statutes in the U.S. may apply to us with respect to various activities of our users, including the DMCA, provide immunity from monetary damages for online service providers such as us from, among other things, infringing content uploaded to our Platform by our users provided we comply with certain statutory requirements. The immunity is part of a statutory safe harbor. To enjoy the benefits of the safe harbor and be immune from monetary damages for infringing content uploaded by our users, we have to register a designated agent with the U.S. Copyright Office and maintain that filing on a periodic basis with the U.S. Copyright Office. We must also expeditiously remove any infringing content upon acquiring actual knowledge of such infringement or, in the absence of actual knowledge, if we become aware of facts or circumstances from which infringing activity is apparent. We must also adopt, reasonably implement, and inform users of our Platform about a policy that provides for the termination in appropriate circumstances of users who are repeat infringers of the copyrights of third parties. If we fail to comply with the conditions for qualifying for safe harbor protection, we may be subject to monetary damages for infringing content on our Platform. The damages for copyright infringement can range from \$750 to \$30,000 per work infringed and, in the case of willful infringement, up to \$150,000 per work infringed. Alternatively, copyright owners could seek to recover their actual damages and our profits. As we host millions of user uploaded works, we could be subject to significant damages claims if we are determined not to comply with the DMCA safe harbors. Intellectual property disputes are common in our sector, and, as we face increasing competition or grow our business, there is an ongoing risk that we may become involved in legal disputes involving intellectual property claims. In addition to the protection provided by our intellectual property rights, we maintain a policy requiring our employees, consultants, and other third parties to enter into confidentiality and proprietary rights agreements to control access to our intellectual property.

For additional information on risks relating to intellectual property, please see the sections titled “Risk Factors—Risks Related to Intellectual Property—Claims by others that we infringe their proprietary technology or other rights, the activities of our users or the content of the experiences on our Platform could subject us to liability and harm our business,” “Risk Factors—Risks Related to Intellectual Property—Failure to protect or enforce our intellectual property rights or the costs involved in such enforcement would harm our business,” and “Risk Factors—Risks Related to Intellectual Property—We use open source software on our Platform and in connection with certain experiences on our Platform, which may pose particular intellectual property risks to and could have a negative impact on our business.”

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## Human Capital

As of December 31, 2022, we employed 2,128 full time employees. In addition, we had thousands of trust & safety agents across the globe. In order to continue to evolve the Roblox Platform, we must continue to invest heavily in attracting and retaining key talent, especially those focused on product and engineering. We monitor our progress with human capital metrics such as turnover, time to fill open roles, ratio of internally developed talent to external hires, ratio of technical talent to overall employees and employee engagement. Our brand, market position, reputation for innovation, and developer and creator-centric culture support our ability to recruit best-in-class engineering talent. As of December 31, 2022, we had over 1,600 employees in product and engineering functions, accounting for 75% of our total full time employees, and over 100 of our full time employees are located outside of the U.S.

We have embraced four core values since we founded Roblox and focus on incorporating them into our daily actions:

- **Respect the Community.** We consider our impact on the world, strive to respect everyone's best interests, and communicate authentically. We prioritize community before company, company before team, and team before individual.
- **We are Responsible.** We are responsible for both the intended and unintended consequences of our actions.
- **Take the Long View.** We set a long term vision, even when making short term decisions. Challenge the status quo, think big, and look for innovation in whatever we do.
- **Get Stuff Done.** We drive execution by taking initiative and relentlessly iterating towards the long term goal.

To help focus our core values and to promote and support diversity, inclusion and equity, we have established several affinity groups. Our affinity groups are inclusive, voluntary and employee-led whose aim is to promote inclusion at the Company and allow networking, mentorships, and other opportunities for professional and personal development. They include groups for women, racial and ethnic minorities, and people who identify as LGBTQIA+.

## Corporate Information

We were incorporated in 2004. Our principal executive offices are located at 970 Park Place, San Mateo, California 94403, and our telephone number is (888) 858-2569. Our website address is [www.roblox.com](http://www.roblox.com). Information contained on, or that can be accessed through, our website is not incorporated by reference into this Annual Report on Form 10-K. "Roblox," "Robux," our logo and our other registered or common law trademarks, service marks or trade names appearing in this Annual Report on Form 10-K are the property of Roblox Corporation. Other trademarks and trade names referred to in this Annual Report on Form 10-K are the property of their respective owners. Solely for convenience, trademarks and trade names referred to in this Annual Report on Form 10-K, including logos, artwork and other visual displays, may appear without a trademark symbol, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other entities' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other entity.

## Available Information

We file electronically with the U.S. Securities and Exchange Commission ("SEC"), our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act. We make available on our website at [ir.roblox.com](http://ir.roblox.com), free of charge, copies of these reports and other information as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC.

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Investors, the media and others should note that we intend to announce material information to the public through filings with the SEC, the investor relations page on our website, at [www.corp.roblox.com](http://www.corp.roblox.com), press releases, public conference calls and webcasts. We use these channels, as well as social media, our blog at <https://blog.roblox.com/> and our Creator Hub page at <https://create.roblox.com/docs>, to communicate with our developers and creators, users, and the public about our company, our Platform and other issues, and the information disclosed by the foregoing channels could be deemed to be material information. As such, we encourage investors, the media and others to follow the channels listed above and to review the information disclosed through such channels. However, information contained on, or that can be accessed through, these channels does not constitute a part of this prospectus and is not incorporated by reference herein. Any updates to the list of disclosure channels through which we will announce information will be posted on the investor relations page on our website.

## Item 1A. Risk Factors

### RISK FACTORS

*A description of the risks and uncertainties associated with our business is set forth below. You should carefully consider the risks described below, as well as the other information in this Annual Report on Form 10-K, including our consolidated financial statements and "Management's Discussion and Analysis of Financial Condition and Results of Operations." The occurrence of any of the events or developments described below could materially and adversely affect our business, financial condition, results of operations, and growth prospects. In such an event, the market price of our Class A common stock could decline, and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently believe are not material may also impair our business, financial condition, results of operations, and growth prospects.*

#### Risk Factors Summary

Below is a summary of the principal factors that make an investment in our Class A common stock speculative or risky:

- We experienced rapid growth in prior periods and our prior growth may not be indicative of our future growth or the growth of our market.
  - We have a history of net losses and we may not be able to achieve or maintain profitability in the future.
  - Our financial condition and results of operations will fluctuate from quarter to quarter, which makes them difficult to predict and they may not fully reflect the underlying performance of our business.
  - Our business is affected by seasonal demands, and our quarterly operations results fluctuate as a result.
  - We depend on effectively operating with mobile operating systems, hardware, and networks that we do not control; changes to any of these or our Platform may significantly harm our user retention, growth, engagement, and monetization, or require us to change our data collection and privacy, data security, and data protection practices, business models, operations, practices, advertising activities or application content, which could restrict our ability to maintain our Platform through these systems, hardware, and networks and would adversely impact our business.
  - Because we recognize revenue from bookings over the estimated average lifetime of a paying user or as the virtual items are consumed, changes in our business may not be immediately reflected in our operating results.
  - If our business becomes constrained by changing legal and regulatory requirements, including with respect to privacy, data security and data protection, consumer protection, communication, and user-generated content, or enforcement by government regulators, including fines, orders, or consent decrees in the US or other jurisdictions in which we operate, our operating results will suffer.
  - The success of our business model is contingent upon our ability to provide a safe online environment for children to experience and if we are not able to continue to provide a safe environment, our business will suffer dramatically.
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- Our ability to provide sufficiently reliable services to our developers, creators, and users and maintain the performance of our Platform in the event of outages, constraints, disruptions or degradations in our services and our Platform.
  - If the security of our Platform is compromised, it could compromise our and our developers', creators', and users' proprietary information, disrupt our internal operations and harm public perception of our Platform, which could cause our business and reputation to suffer.
  - The global COVID-19 pandemic has significantly affected our business and operations.
  - The loss of one or more of the members of our senior management team or other key personnel (or the inability to attract senior management or other key personnel), in particular our Founder, President, CEO and Chair of our Board of Directors, David Baszucki, could significantly harm our business.
  - We must continue to attract and retain highly qualified personnel in very competitive markets to continue to execute on our business strategy and growth plans.
  - We may identify material weaknesses or otherwise fail to maintain an effective system of internal controls, which may result in material misstatements of our consolidated financial statements or cause us to fail to meet our periodic reporting obligations.
  - Our business and results of operations are affected by fluctuations in currency exchange rates.
  - We may incur liability as a result of content published using our Platform or as a result of claims related to content generated by our developers, creators, and users, including copyright infringement, and legislation regulating content on our Platform may require us to change our Platform or business practices.
  - The public trading price of our Class A common stock is volatile and may decline.
  - The dual class stock structure of our common stock has the effect of concentrating voting control in our Founder, which may limit or preclude your ability to influence corporate matters, including the election of directors and the approval of any change of control transaction.
  - We may not be able to generate sufficient cash to service our debt and other obligations, including our obligations under our 3.875% Senior Notes due 2030 (the "2030 Notes").
  - Our indebtedness could have important consequences to us.
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## Risks Related to Our Business Generally

### ***We experienced rapid growth in prior periods, and our prior growth rates may not be indicative of our future growth or the growth of our market.***

We experienced rapid growth in prior periods due in part to the COVID-19 pandemic. These activity levels have not been sustained, and our growth rates have moderated in most markets. For example, our bookings increased 171% from the year ended December 31, 2019 to the year ended December 31, 2020 and our bookings growth rate was 5% for fiscal year 2022. Our revenue and bookings growth rates have slowed and may continue to slow, and we may not experience any growth in bookings or our user base during periods where we are comparing against COVID-19 impacted periods (i.e. the three-month periods ended March 31, 2020, June 30, 2020, September 30, 2020, December 31, 2020, March 31, 2021, June 30, 2021, September 30, 2021, December 31, 2021, and March 31, 2022). Our historical revenue, bookings and user base growth should not be considered indicative of our future performance. We believe our overall acceptance, revenue growth and increases in bookings depend on a number of factors, including, but not limited to, our ability to:

- enhance the tools we make available to developers for use in developing content;
- expand the number of developers, creators, and users on our Platform;
- expand the number of paying users on our Platform;
- expand the types of experiences that our developers can build for users;
- continue to provide, and be viewed as being able to provide, a safe and civil environment for all users;
- maintain the security and reliability of our Platform;
- provide access to our Platform for users in areas where access to the internet is challenged;
- comply with country and region-specific regulatory environments with respect to privacy, data security, data protection, intellectual property, child protection, advertising and other requirements;
- attract highly qualified talent, and train, motivate and manage our highly-qualified personnel;
- manage growth of our business, headcount and operations effectively;
- provide excellent customer experience and customer support for our developers, creators, and users;
- successfully establish an advertising model on the Platform;
- successfully compete against established companies and new market entrants offering a multitude of interactive entertainment offerings; and
- increase global awareness of our brand.

If we are unable to accomplish these tasks, amongst others, our Platform will not be attractive to developers, creators, and users and they may no longer seek new experiences in our Platform, which would result in fewer bookings and lower revenue and could harm our operations.

### ***We have a history of net losses and we may not be able to achieve or maintain profitability in the future.***

We have incurred net losses since our inception, and we expect to continue to incur net losses in the near future. We incurred net losses attributable to common stockholders of \$924.4 million, \$491.7 million and \$253.3 million for the years ended December 31, 2022, 2021 and 2020, respectively. As of December 31, 2022, we had an accumulated deficit of \$1,908.3 million. We also expect our operating expenses to increase significantly in future periods, and if our DAU growth does not increase to offset these anticipated increases in our operating expenses, our business, results of operations, and financial condition will be harmed, and we may not be able to achieve or maintain profitability. We expect our costs and investments to continue to increase in future periods as we intend to continue to make investments to grow our business, including an expected increase in infrastructure, stock-based compensation expenses, and acquisitions. These efforts may be more costly than we expect and may not result in increased revenue or growth of our business. In addition to the expected costs to grow our business, we have incurred and also expect to continue to incur significant additional legal, accounting, and other expenses as a recently public company. If we fail to increase our revenue to sufficiently offset the increases in our operating expenses, we will not be able to achieve or maintain profitability in the future.

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***Our financial condition and results of operations will fluctuate from quarter to quarter, which makes them difficult to predict and they may not fully reflect the underlying performance of our business.***

Our quarterly results of operations have fluctuated in the past and will fluctuate in the future, both based on the seasonality of our business as well as external factors impacting the global economy, our industry and our company. As a result, you should not rely on our past quarterly results of operations as indicators of future performance. You should take into account the risks and uncertainties frequently encountered by companies in rapidly evolving market segments. Our financial condition and results of operations in any given quarter can be influenced by numerous factors, many of which we are unable to predict or are outside of our control, including, but not limited to:

- our ability to maintain and grow our user base and user engagement;
  - our ability to retain and grow our developer base and encourage them to continue developing experiences and marketplace items on our Platform;
  - the ability of newer experiences and marketplace items to monetize as effectively as more established experiences and avatar items;
  - the level of demand for our Platform;
  - the development and introduction of new or redesigned features on our Platform or our competitors' platforms and other offerings;
  - seasonal fluctuations in user engagement on our Platform;
  - our pricing model;
  - increases in marketing, sales, and other operating expenses that we may incur to grow and expand our operations and to remain competitive;
  - our ability to successfully expand internationally and penetrate key demographics;
  - the ability to monetize our users in certain geographic markets;
  - our ability to introduce new revenue streams such as advertising;
  - our ability to maintain operating margins, cash used in operating activities, and free cash flow;
  - system failures or actual or perceived breaches of data security or privacy, and the costs associated with such failures, breaches and remediations;
  - inaccessibility of our Platform, or certain features within our Platform;
  - increase in personnel expenses (including with respect to stock-based compensation expense, such as the CEO Long-Term Performance Award described herein);
  - our ability to effectively incentivize our workforce and developers;
  - adverse litigation judgments, settlements, or other litigation and dispute-related costs;
  - adverse media coverage or unfavorable publicity;
  - changes in the legislative or regulatory environment, including with respect to privacy, data security and data protection, consumer protection, and user-uploaded content, or enforcement by government regulators, including fines, orders, or consent decrees;
  - fluctuations in currency exchange rates and changes in the proportion of our revenue, bookings and expenses denominated in foreign currencies;
  - fluctuations in the market values of our portfolio investments and interest rates or impairments of any assets on our balance sheet;
  - the effectiveness of our internal control over financial reporting;
  - changes in our effective tax rate;
  - changes in accounting standards, policies, guidance, interpretations, or principles; and
  - changes in domestic and global business or macroeconomic conditions, such as high levels of inflation or the war in Ukraine.
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***Our business is affected by seasonal demands, and our quarterly operations results fluctuate as a result.***

Historically our business has been highly seasonal, with the highest percentage of our bookings occurring in the fourth quarter when holidays permit our users to spend increased time on our Platform and lead to increased spend on pre-paid Robux gift cards, and we expect this trend to continue. We also typically see higher levels of engagement in the months of June, July and August, which are summer periods in the northern hemisphere, and lower levels of engagement in the post-summer months of September, October and November. We may also experience fluctuations due to factors that may be outside of our control that affect user or developer and creator engagement with our Platform, such as the impact of the COVID-19 pandemic. Additionally, from time to time, the U.S. and other key geographic markets have been impacted by economic and geopolitical instability, such as high levels of inflation, persistent unemployment, wage and income stagnation; rising interest rates; economic and trade sanctions; the Russian invasion of Ukraine; fluctuations in currency exchange rates, in particular the strengthening U.S. dollar, and overall economic uncertainty, which could affect the buying power of our users, developers and creators, and lead to a reduced demand for our Platform and impact our results of operations in ways that are hard to predict. Moreover, we seek to further develop the live experiences available on our Platform, such as virtual concerts, classrooms, meetings, and conferences, and to offer commercial partners with branding opportunities in conjunction with key events, such as a product launch. These episodic experiences may also contribute to fluctuations in our quarterly results of operations. As our business matures, other seasonal trends may develop or these existing seasonal trends may become more extreme.

***We depend on effectively operating with mobile operating systems, hardware, and networks that we do not control; changes to any of these or our Platform may significantly harm our user retention, growth, engagement, and monetization, or require us to change our data collection and privacy, data security, and data protection practices, business models, operations, practices, advertising activities, or application content, which could restrict our ability to maintain our Platform through these systems, hardware and networks and would adversely impact our business.***

For the year ended December 31, 2022, 32% of our revenue was attributable to Robux sales through the Apple App Store and 18% of our revenue was attributable to Robux sales through the Google Play Store. Because of the significant use of our Platform on mobile devices, our application must remain interoperable with these and other popular mobile app stores and platforms, and related hardware. Further, we are subject to the standard policies and terms of service of these operating systems, as well as policies and terms of service of the various application stores that make our application and experiences available to our developers, creators, and users. These policies and terms of service govern the availability, promotion, distribution, content, and operation generally of applications and experiences on such operating systems and stores. Each provider of these operating systems and stores has broad discretion to change and interpret its terms of service and policies with respect to our Platform and those changes may be unfavorable to us and our developers', creators', and users' use of our Platform. If we were to violate, or an operating system provider or application store believes that we have violated, its terms of service or policies, that operating system provider or application store could limit or discontinue our access to its operating system or store. In some cases these requirements may not be clear or our interpretation of the requirements may not align with the interpretation of the operating system provider or application store, which could lead to inconsistent enforcement of these terms of service or policies against us, and could also result in the operating system provider or application store limiting or discontinuing access to its operating system or store. Any limitation on or discontinuation of our access to any third-party platform or application store could adversely affect our business, financial condition or results of operations.

We may not successfully cultivate relationships with key industry participants or develop products that operate effectively with these technologies, systems, networks, regulations, or standards. If it becomes more difficult for our users to access and engage with our Platform on their mobile devices, if our users choose not to access or use our Platform application on their mobile devices, or if our users choose to use mobile products that do not offer access to our Platform, our business and user retention, growth, and engagement could be significantly harmed.

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The owners and operators of these mobile application platforms, primarily Apple and Google, each have approval authority over our Platform's deployment on their systems and offer consumers products that compete with ours. Additionally, mobile devices are manufactured by a wide array of companies. Those companies have no obligation to test the interoperability of new mobile devices with our Platform application and may produce new products that are incompatible with or not optimal for our Platform. We have no control over these operating systems, application stores, or hardware, and any changes to these systems or hardware that degrade our Platform's functionality, or give preferential treatment to competitive products, could significantly harm our Platform usage on mobile devices. An operating system provider or application store could also limit or discontinue our access to its operating system or store if it establishes more favorable relationships with one or more of our competitors, launches a competing product itself, or it otherwise determines that it is in its business interests to do so. Our competitors that control the operating systems and related hardware our application runs on could make interoperability of our Platform with those mobile operating systems more difficult or display their competitive offerings more prominently than ours. Additionally, our competitors that control the standards for the application stores for their operating systems could make our Platform application, or certain features of our Platform, inaccessible for a potentially significant period of time. We plan to continue to introduce new technologies on our Platform regularly and have experienced that it takes time to optimize such technologies to function with these operating systems, hardware, and standards, impacting the popularity of our new technologies and features, and we expect this trend to continue.

Moreover, our Platform requires high-bandwidth data capabilities. If the costs of data usage increase or access to cellular networks is limited, our user retention, growth, and engagement may be significantly harmed. Additionally, to deliver high-quality video and other content over mobile cellular networks, our Platform must work well with a range of mobile technologies, systems, networks, regulations, and standards that we do not control. In particular, any future changes to the iOS or Android operating systems or application stores may impact the accessibility, speed, functionality, and other performance aspects of our Platform, and result in issues in the future from time to time. In addition, the proposal or adoption of any laws, regulations, or initiatives that adversely affect the growth, popularity, or use of the internet, including laws governing internet neutrality, could decrease the demand for our Platform and increase our cost of doing business.

For our experiences accessed through mobile platforms such as the Apple App Store and the Google Play Store, we are required to share a portion of the proceeds from in-game sales with the platform providers. For operations through the Apple App Store and Google Play Store, we are obligated to pay up to 30% of any money paid by users to purchase Robux to Apple and Google and this amount could be increased. These costs are expected to remain a significant operating expense for the foreseeable future. If the amount these platform providers charge increases, it could have a material impact on our ability to pay developers and our results of operations. Each provider of an operating system or application store may also change its fee structure, add fees associated with access to and use of its operating system, alter how its customers are able to advertise on their operating system, change or limit how the personal or other information of its users is made available to application developers on their operating system, limit the use of personal information for advertising purposes or restrict how end-users can share information on their operating system or across other platforms.

Restrictions on our ability to collect, process, and use data as desired could negatively impact our ability to leverage data about the experiences our developers create. This in turn could impact our resource planning and feature development planning for our Platform. Similarly, at any time, these operating system providers or application stores can change their policies on how we operate on their operating system or in their application stores by, for example, applying content moderation for applications and advertising or imposing technical or code requirements. Actions by operating system providers or application stores such as the Apple App Store and the Google Play Store may affect the manner in which we collect, process and use data from end-user devices. Accordingly, future changes implemented by Apple or Google could adversely impact our revenue. In addition, these operating systems and application stores could change their business models and could, for example, increase application store fees, which could have an adverse impact on our business. There have been litigation and governmental inquiries over the application store fees, and Apple or Google could modify their platform in response to litigation and inquiries in a manner that may harm us.

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***Because we recognize revenue from bookings over the estimated average lifetime of a paying user or as the virtual items are consumed, changes in our business may not be immediately reflected in our operating results.***

The majority of the virtual items available on the Roblox Platform are durable virtual items, which when acquired are recognized ratably over the estimated period of time the virtual items are available to the user (estimated to be the average lifetime of a paying user). Every quarter, we complete an assessment of our estimated paying user life, which is used for revenue recognition of durable virtual items and calculated based on historical monthly retention data for each paying user cohort to project future participation on the Roblox Platform. In 2021, our estimated paying user life was 23 months. In the first quarter of 2022, we updated our estimated paying user life to 25 months, which was subsequently updated again to 28 months in the third quarter of 2022. Based on the carrying amount of deferred revenue and deferred cost of revenue as of December 31, 2021, these changes in estimates resulted in a decrease in revenue of \$344.9 million and a decrease in cost of revenue of \$79.3 million during the twelve months ended December 31, 2022. Therefore, much of the revenue we report in each quarter is the result of purchases of Robux during previous periods. Consequently, a decline in purchases of Robux in any one quarter will not be fully reflected in our revenue and operating results for that quarter. Any such decline, however, will negatively impact our revenue and operating results in future quarters. Accordingly, the effect of significant near-term downturns in purchases of Robux for a variety of reasons may not be fully reflected in our results of operations until future periods.

***If our business becomes constrained by changing legal and regulatory requirements, including with respect to privacy, data security and data protection, consumer protection, and user-generated content, or enforcement by government regulators, including fines, orders, or consent decrees in the US or other jurisdictions in which we operate, our operating results will suffer.***

Our future success will depend in part on market acceptance and widespread adoption across demographics and geographies of our Platform over other interactive entertainment offerings. Uncertainty over or changes in laws and regulations with respect to gaming and other interactive entertainment offerings could adversely affect our ability to operate or our developer's ability to monetize their experiences in some geographies. In addition, the widespread availability of content generated by our developers and creators on our Platform is a newer development and the regulatory framework for broad dissemination of this content is new and evolving. For example, the United Kingdom's Age Appropriate Design Code ("AADC"), is one such regulatory framework that has been adopted in the United Kingdom that focuses on online safety and protection of children's privacy online, and similar frameworks are being considered for adoption in other jurisdictions. California has also enacted the California Age-Appropriate Design Code Act, or ADCA, which will take effect on July 1, 2024. The ADCA implements into law certain principles taken from the AADC, among other things, and imposes substantial new obligations upon companies that offer online services, products, or features "likely to be accessed" by children, defined under the ADCA as anyone under 18 years of age. Additionally, the European Union's ("EU's"), DSA entered into force on November 16, 2022, and will become fully applicable on February 17, 2024. The DSA imposes new content moderation obligations, notice and transparency obligations, advertising restrictions and other requirements on digital platforms to protect consumers and their rights online. Additionally, the Federal Trade Commission regulates deceptive or unfair commercial activities, including with relation to targeted advertising, and can impose significant injunctive and monetary remedies for violations. We provide our developers and creators with the ability to publish their content throughout the world, and each country is developing regulations and policies to regulate this new space, including with respect to privacy, biometrics, data protection, data security, gambling, loot boxes, intellectual property, childhood protection, consumer protection, ratings, and taxes. If we are unable to allow developers and creators to comply with potentially conflicting regulations throughout the world, our ability to execute on our business model would be severely impacted, and our ability to grow our business could be harmed. Additionally, compliance with regulatory requirements throughout the world could increase our moderation and compliance related costs and expenses. Additionally, as we introduce advertising to the Platform, we will become subject to regulations with respect to advertising, in particular, advertising to children, and the regulations could differ based on jurisdiction of the user. We may not be able to implement an advertising model that is compliant with regulations in all jurisdictions in which we operate. Moreover, changes to these laws, regulations, standards, or obligations could require us to change our business model, take on more onerous obligations, including, but not limited to, applying for government-issued licenses to operate, establishing a local presence in certain jurisdictions, or developing localized product offerings, and impact the functionality of our Platform. If we are obligated to fundamentally change our business activities and practices or modify our Platform, we may be unable to make these required changes and modifications in a commercially reasonable manner, or at all, and our ability to further develop and enhance our Platform may be limited. The costs of compliance with, and other burdens imposed by, these laws, regulations, standards and obligations, or any inability to adequately address these, may limit our ability to operate our Platform, limit the use of our Platform or reduce overall demand for our Platform, which could harm our business, financial condition, and results of operations.

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***The success of our business model is contingent upon our ability to provide a safe online environment for children to experience and if we are not able to continue to provide a safe environment, our business will suffer dramatically.***

Our Platform hosts a number of experiences intended for audiences of varying ages, a significant percentage of which are designed to be experienced by children. As a user-generated content platform, it is relatively easy for developers, creators, and users to upload content that can be viewed broadly. We continue to make significant efforts to provide a safe and enjoyable experience for users of all ages. We invest significant technical and human resources to prevent inappropriate content on our Platform by reviewing all images, audio, video, and 3D models at the time of upload in order to block inappropriate content before users have a chance to encounter it on our Platform. Notwithstanding our efforts, from time to time inappropriate content is successfully uploaded onto our Platform and can be viewed by others prior to being identified and removed by us. Moreover, measures intended to make our Platform more attractive to an older, age verified audience, such as less highly moderated or unmoderated chat and the introduction of experiences with mature content, and new methods of communication could fail to gain sufficient market acceptance by its intended audience and may create the perception that our Platform is not safe for young users. In addition, children may attempt to evade our age verification system, which could lead them to be exposed to inappropriate behavior by participating in experiences that are not age appropriate or that feature spatial voice chat. This content could cause harm to our audience and to our reputation of providing a safe environment for children to play online. If we are unable to prevent, or are perceived as not being able to sufficiently prevent, all or substantially all age-inappropriate content from appearing on our Platform, parents and children will lose their trust in the safety of our Platform, which would harm our overall acceptance by these audiences and would likely result in significantly reduced revenue, bookings, profitability, and ultimately, our ability to continue to successfully operate our Platform.

In addition to generally blocking age-inappropriate content, we have statutory obligations under U.S. federal law to block or remove child pornography and report offenses to the National Center for Missing and Exploited Children. While we have dedicated technology and trained human moderator staff that can detect and remove sexual content involving children, there have been instances where such content has been uploaded, and any future non-compliance by us or allegations of non-compliance by us with respect to U.S. federal laws on child pornography or the sexual exploitation of children could significantly harm our reputation, create criminal liability, and could be costly and time consuming to address or defend. We may also be subject to additional criminal liability related to child pornography or child sexual exploitation under other domestic and international laws and regulations.

Further, we have faced and are currently defending allegations that our Platform has been used by criminal offenders to identify and communicate with children and to possibly entice them to interact off-Platform, outside of the restrictions of our chat, content blockers, and other on-Platform safety measures. While we devote considerable resources to prevent this from occurring, we are unable to prevent all such interactions from taking place. Any criminal incidents or allegations involving Roblox, whether or not we are directly responsible, could adversely affect our reputation as a safe place for children and hurt our business.

In addition, various local, national, and foreign laws and regulations apply to our operations, including the Children's Online Privacy Protection Act ("COPPA"), in the U.S., Article 8 of the EU's General Data Protection Regulation ("GDPR") and similar regulations in other jurisdictions. COPPA imposes strict requirements on operators of websites or online services directed to children under 13 years of age (or 16 years of age under other regulatory regimes). 46% of our DAUs were under the age of 13 during the year ended December 31, 2022. COPPA requires companies to obtain parental consent before collecting personal information from children under the age of 13. Both the U.S. federal government and the states can enforce COPPA and violations of COPPA can lead to significant fines. No assurances can be given that our compliance efforts will be sufficient to avoid allegations of COPPA violations, and any non-compliance or allegations of non-compliance could expose us to significant liability, penalties and loss of revenue, significantly harm our reputation, and could be costly and time consuming to address or defend. To the extent we rely on consent for processing personal data under the GDPR, consent or authorization from the holder of parental responsibility is required in certain cases for the processing of personal data of children under the age of 16, and member states may enact laws that lower that age to 13. Additionally, we have been the subject of lawsuits brought on behalf of child users where the court may allow minors to disaffirm or avoid enforcement of our Terms of Use, depending on the circumstances. If we were found to be in breach of these regulations or if minors on our Platform could avoid enforcement of our Terms of Use, it could have a material adverse impact on our business, financial condition, results of operations, and cash flows.

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***Our reputation as a safe and civil environment for children is very important to our success and if we fail to protect users or we are perceived to be failing to protect users, our business will suffer and our results of operations could be materially and adversely affected.***

We have received and may continue to receive a high degree of media coverage. Unfavorable publicity regarding, for example, our privacy, data security, or data protection practices, terms of service, product changes, product quality, litigation or regulatory activity, the actions of our users, the actions of our developers or creators whose products are integrated with our Platform, the use of our Platform for illicit or objectionable ends (including the use of our Platform to possibly entice children to interact off-Platform), actual or perceived incidents or misuses of user data or other privacy or security incidents, the substance or enforcement of our community standards, the quality, integrity, characterization and age-appropriateness of content shared on our Platform, or the actions of other companies that provide similar services to ours, has in the past, and could in the future, adversely affect our reputation. For example, we have experienced negative media publicity related to the age of some of our developers, the content that developers produce for, or the conduct of users on our Platform that may be deemed illicit, explicit, profane, or otherwise objectionable. While we are rolling out experience guidelines that will allow users to flag certain explicit content in our games, and on ways to better optimize our parental controls, users may still be exposed to content that may not be age-appropriate. Additionally, as we roll out measures intended to make our Platform more attractive to older, age verified users it may increase the risk that children on our Platform are exposed to content that may not be age-appropriate, for example due to attempts to evade our age verification system. Although illicit activities are in violation of our terms and policies and we attempt to block objectionable material, we are unable to prevent all such violations from occurring and measures intended to make our Platform more attractive to older age-verified users may create the perception that our Platform is not safe for young users. In addition, we have faced allegations that our Platform has been used by criminal offenders to identify and communicate with children and to possibly entice them to interact off-Platform, outside of the restrictions of our chat, content blockers and other on-platform safety measures. While we devote considerable resources to prevent this from occurring, any negative publicity could create the perception that we do not provide a safe online environment and may have an adverse effect on the size, engagement, and loyalty of our developer, creator and user community, which would adversely affect our business and financial results.

***Our business depends on a strong brand and if events occur that damage our reputation and brand, we may be unable to maintain and grow the number of developers, creators, and users on our Platform.***

We believe that maintaining, protecting and enhancing our reputation and brand is critical to grow the number of developers, creators, and users on our Platform, especially given the safe and civil atmosphere that we strive to achieve for our users, many of whom are children. Maintaining, protecting and enhancing our brand will depend largely on our ability to continue to provide reliable high-quality, engaging and shared experiences on our Platform. If users, developers, or creators do not perceive our Platform to be reliable or of high quality, the value of our brand could diminish, thereby decreasing the attractiveness of our Platform to users.

Our reputation and brand could also be negatively affected by the actions of developers and users that are hostile, inappropriate or illegal, whether on or off our Platform. In addition, users, developers or creators may become dissatisfied with our billing or payment policies, our handling of personal data or other aspects of our Platform. If we fail to adequately address these or other user, developer, or creator complaints, negative publicity about us or our Platform could diminish confidence in and the use of our Platform. Maintaining, protecting, and enhancing our reputation and brand may require us to make substantial investments, and these investments may not be successful. Our reputation and brand are also important to attracting and retaining highly qualified employees. If we fail to successfully promote and maintain our reputation and brand or if we incur significant expenses in this effort, our business and financial results may be adversely affected.

***The lack of comprehensive encryption for communications on our Platform may increase the impact of a data security incident.***

Communications on our Platform are not comprehensively encrypted at this time. As such, any data security incident that involves unauthorized access, acquisition, disclosure, or use may be more impactful to our business. We may experience greater incident response forensics, data recovery, legal fees, and costs of notification related to any such potential incident, and we may face an increased risk of reputational harm, regulatory enforcement, and consumer litigation, which could further harm our business, financial condition, results of operations, and future business opportunities.

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***We depend on our developers to create digital content that our users find compelling, and our business will suffer if we are unable to entertain our users, improve the experience of our users, or properly incentivize our developers and creators to develop and monetize content.***

Our Platform enables our developers to create experiences and virtual items, which we refer to as user-generated content. Our Platform relies on our developers to create experiences and virtual items on our Platform for our users to acquire and/or use. Our users interact with these experiences, which are largely free to engage with. These users can also elect to acquire virtual items through our Avatar Marketplace and in experiences that enhance their enjoyment. We believe the interactions between and within the developer, creator, and user communities on our Platform create a thriving and organic ecosystem, and this network effect drives our growth. To facilitate and incentivize the creation of the experiences and virtual items by developers our Platform offers developers an opportunity to earn Robux, a virtual currency on our Platform, in connection with their development work on our Platform, although some of our developers may choose not to monetize or may not be effective at monetizing their experiences. When virtual items are acquired on our Platform, the originating developer or creator earns a portion of the Robux paid for the item. Developers are able to exchange their accumulated earned Robux for real-world currency under certain conditions outlined in our Developer Exchange Program. If we fail to provide a sufficient return to developers, they may elect to develop user-generated content on other platforms, which would result in a loss of revenue. If we do not provide the right technologies, education or financial incentives to our developers, they may develop fewer experiences or virtual items or be unable to monetize their experiences, and our users may elect to not participate in the experiences or acquire the virtual items, and, thus, our Platform, revenue, and bookings could be adversely affected.

***If we experience outages, constraints, disruptions or degradations in our services, Platform support and/or technological infrastructure, our ability to provide sufficiently reliable services to our customers and maintain the performance of our Platform could be negatively impacted, which could harm our relationships with our developers, creators, and users, and, consequently, our business.***

Our users expect fast, reliable, and resilient systems to enhance their experience and support their activity as they quickly traverse between and within experiences and acquire virtual items for their avatars or to enhance their experiences, which depends on the continuing operation and availability of our information technology systems from our global network of data centers controlled and operated by us and those of our external service providers, including third-party "cloud" computing services. We also provide services to our developer and creator community through our Platform, including DevForum and Creator Hub for tutorials, hosting, customer service, regulatory compliance, and translation, among many others. The experiences and technologies on our Platform are complex software products and maintaining the sophisticated internal and external technological infrastructure required to reliably deliver these experiences and technologies are expensive and complex. The reliable delivery and stability of our Platform has been, and could in the future be, adversely impacted by outages, disruptions, failures or degradations in our network and related infrastructure or those of our partners or service providers. We have experienced outages from time to time since our inception when the Platform is unavailable for all or some of our users, developers, and creators. For example, on May 3, 2022, we experienced an outage which lasted approximately 12 hours, and on October 28, 2021, we experienced an outage on our Platform which lasted approximately three calendar days. Outages can be caused by a number of factors, including a move to a new technology, the demand on our Platform exceeding the capabilities of our technological infrastructure, delays or failures resulting from earthquakes, adverse weather conditions, other natural disasters, pandemics, power loss, terrorism, geopolitical conflict, other physical security threats, cyber-attacks, or other catastrophic events, the migration of data among data centers and to third-party hosted environments, and issues relating to our reliance on third-party software and third parties that host our Platform in areas where we do not operate our own data centers. Global climate change could also result in natural disasters occurring more frequently or with more intense effects, which could cause business interruptions. The unavailability of our Platform, particularly if outages should become more frequent or longer in duration, could cause our users to seek other entertainment options, including those provided by our competitors, which may adversely affect our financial results. We may also experience a negative impact to our financial results as a result of decreased usage on our Platform or decrease of payouts to developers and creators. We may not have full redundancy for all of our systems at all times and our disaster recovery planning may not be sufficient to address all aspects of any unanticipated consequence or incident or allow us to maintain business continuity at profitable levels or at all. Further, in the event of damage or service interruption, our business interruption insurance policies will not adequately compensate us for any losses that we may incur. These factors in turn could further reduce our revenues, subject us to liability, or otherwise harm our business, financial condition, or results of operations.

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In addition to the events described above, our data centers may also be subject to local administrative actions, changes to legal or permitting requirements and litigation that could stop, limit or delay operations. Despite a reliability program focused on anticipating and solving issues that may impact the availability of our Platform and precautions taken at our data centers, such as disaster recovery and business continuity arrangements, the occurrence of spikes in usage volume, the occurrence of a natural disaster, hacking event or act of terrorism, a decision to close the facilities without adequate notice, or our inability to secure additional or replacement data center capacity as needed, or other unanticipated problems at our data centers could result in interruptions or delays on our Platform, impede our ability to scale our operations or have other adverse impacts upon our business and adversely impact our ability to serve our developers, creators, and users.

Our developers or users may suffer a variety of outages or disruptions in accessing our Platform for a variety of reasons, including issues with their technology providers. If we or our partners or third party service providers experience outages and our Platform is unavailable or if our developers, creators, and users are unable to access our Platform within a reasonable amount of time or at all, as a result of any such events, our reputation and brand may be harmed, developer, creator and user engagement with our Platform may be reduced, and our revenue, bookings and profitability could be negatively impacted.

Customer support personnel and technologies are critical to resolve issues and to allow developers, creators, and users to realize the full benefits that our Platform provides. High-quality support is important for the retention of our existing developers, creators, and users and to encourage the expansion of their use of our Platform. We must continue to invest in the infrastructure required to support our Platform. If we do not help our developers, creators, and users quickly resolve issues and provide effective ongoing support, our ability to maintain and expand our Platform to existing and new developers, creators, and users could suffer. In addition, if we do not make sufficient investments in servers, software or personnel in support of our infrastructure, to scale effectively and accommodate increased demands placed on our infrastructure, the reliability of our underlying infrastructure will be harmed and our ability to provide a quality experience for our developers, creators, and users will be significantly harmed. This would lead to a reduction in the number of developers, creators and users on our Platform, a reduction in our revenues, bookings, and ability to compete, and our reputation with existing or potential developers, creators, or users could suffer.

***Our future growth depends on our ability to continue innovating our Platform to offer attractive features for our developers and safe, secure and civil experiences for our developers, creators, and users.***

We spend substantial amounts of time and money to research, develop, and enhance versions of our Platform to incorporate additional features, improve functionality or other enhancements and prioritize user safety and security in order to meet the rapidly evolving demands of our developers, creators, and users. Maintaining adequate research and development resources, such as the appropriate personnel and development technology, to meet the demands of the market is essential. Developments and innovations on our Platform may rely on new or evolving technologies which are still in development or may never be fully developed. If we fail to anticipate developers' and creators' needs, the quality of the content they create may not attract users to engage with our experiences and result in a decline of users on our Platform. When we develop new or enhanced features for our Platform, we typically incur expenses and expend resources upfront to develop, market, promote, and sell new features. Therefore, when we develop and introduce new or enhanced features, they must achieve high levels of developer, creator, and user acceptance in order to justify the investment in developing and bringing them to market. In the past, it has been difficult to remove features we have introduced that have not achieved acceptance, and as such, we still maintain them at some cost. Further, we have made and may in the future make changes to our Platform or added features that our users, developers, or creators do not like or find useful. Such changes and new features may be difficult to remove from the Platform and expensive to maintain.

The Roblox Cloud may be relied upon in the future for increasingly complex decision-making as it integrates hardware, accelerated machine learning and artificial intelligence ("AI"), including generative AI for a broad range of compute tasks, including control of non-player characters, improved personalization, synthetic content generation, and automation of the player experience. It is possible that at some point the Roblox Cloud may make decisions unpredictably or autonomously, which can raise new or exacerbate existing ethical, technological, legal, and other challenges, and may negatively affect the performance of the Roblox Platform and the user, developer, and creator experience.

New features or enhancements and changes to the existing features of our Platform, such as spatial voice and age verification could fail to attain sufficient market acceptance for many reasons, including:

- failure to predict market demand accurately in terms of functionality and to supply features that meet this demand in a timely fashion;
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- defects, errors, or failures;
- negative publicity about performance or effectiveness;
- delays in releasing new features or enhancements on our Platform; and
- introduction or anticipated introduction of competing products by competitors.

The failure to obtain market acceptance will negatively affect our business, financial condition, results of operations and brand.

***If the security of our Platform is compromised, it could compromise our and our developers', creators', and users' proprietary information, disrupt our internal operations and harm public perception of our Platform, which could cause our business and reputation to suffer.***

We collect and store personal data and certain other sensitive and proprietary information in the operation of our business, including developer, creator, and user information, and other confidential data. While we have implemented measures designed to prevent unauthorized access to or loss of our confidential data, mobile malware, ransomware, viruses, hacking, social engineering, spam and phishing attacks have occurred and may occur on our Platform and our systems and those of our third-party service providers in the future. Because of the popularity of our Platform, we believe that we are an attractive target for these sorts of attacks and have seen the frequency of these types of attacks increase in number.

The techniques used to obtain unauthorized access to, or to sabotage, systems or networks are constantly evolving and generally are not recognized until launched against a target. Consequently, we may be unable to anticipate these techniques, detect or react in a timely manner, or implement preventive measures, which could result in delays in our detection or remediation of, or other responses to, security breaches and other security-related incidents. The wide availability of open source software used in our Platform has exposed us to security vulnerabilities in the past and will likely continue to expose us to security vulnerabilities in the future. For example, in December 2021, a vulnerability in popular logging software, Log4j, was publicly announced. If left unpatched, the Log4j vulnerability could be exploited to allow unauthorized actors to execute code remotely on a system using Log4j. We have taken steps to ensure these vulnerabilities have been patched in our systems, but we cannot guarantee that all vulnerabilities have been patched in every system upon which we are dependent or that additional critical vulnerabilities of Log4j or other open source software upon which we rely will not be discovered. We incur significant costs in an effort to detect and prevent security breaches and other security-related incidents, including those to secure our product development, test, evaluation, and deployment activities, and we expect our costs will increase as we make improvements to our systems and processes to prevent future breaches and incidents. From time to time, we do identify product vulnerabilities, including through our bug bounty program. Although we have policies and procedures in place designed to swiftly characterize the potential impact of such vulnerabilities and develop appropriate patching or upgrade recommendations, and also maintain policies and procedures related to vulnerability scanning and management of our internal corporate systems and networks, such policies and procedures may not be followed or detect every issue.

Our Platform and service operate in conjunction with, and we are dependent upon, third-party products, services, and components. Our ability to monitor our third-party service providers' data security is limited, and in any event, attackers may be able to circumvent our third-party service providers' data security measures. There have been and may continue to be significant attacks on certain of our third-party providers, and we cannot guarantee that our or our third-party providers' systems and networks have not been breached or that they do not contain exploitable defects or bugs that could result in a breach of or disruption to our systems and networks or the systems and networks of third parties that support us and our Platform and service. If there is a security vulnerability, error, or other bug in one of these third-party products, services, or components and if there is a security exploit targeting them, we could face increased costs, claims, liability, reduced revenue, and harm to our reputation or competitive position. We and our service providers may be unable to anticipate these techniques, react, remediate or otherwise address any security vulnerability, breach or other incident in a timely manner, or implement adequate preventative measures.

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If any unauthorized access to our network, systems or data, including our sensitive and proprietary information, personal data from our users, developers, or creators, or other data, or any other security loss or unavailability of, or unauthorized use or disclosure of personal data or any other security breach or incident, occurs or is believed to have occurred, whether as a result of third-party action, employee negligence, error or malfeasance, defects, social engineering techniques, ransomware attacks, or otherwise, our reputation, brand and competitive position could be damaged, our and our users', developers' and creators' data and intellectual property could potentially be lost or compromised, and we could be required to spend capital and other resources to alleviate problems caused by such actual or perceived breaches or incidents and remediate our systems. We could also be exposed to a risk of loss, litigation or regulatory action and possible liability, and our ability to operate our business may be impaired. In the past, we have experienced social engineering attacks (including through phishing attacks), and if similar attacks occur and are successful, this could have a negative impact on our business or result in unfavorable publicity. Additionally, we contract with certain third parties to store and process certain data for us, including our distribution channels, and these third parties face similar risks of actual and potential security breaches and incidents, which could present similar risks to our business, reputation, financial condition, and results of operations.

The economic costs to us to reduce or alleviate cyber or other security problems, such as spammers, errors, bugs, flaws, "cheating" programs, defects or corrupted data, could be significant and may be difficult to anticipate or measure. Even the perception of these issues may cause developers, creators, and users to use our Platform less or stop using it altogether, and the costs could divert our attention and resources, any of which could result in claims, demands, and legal liability to us, regulatory investigations and other proceedings, and otherwise harm our business, reputation, financial condition or results of operations. There could also be regulatory fines imposed for certain data breaches that take place around the world. Further, privacy, biometrics, data security, and data protection laws, such as the California Consumer Privacy Act ("CCPA"), allow for a private right of action, which may lead to consumer litigation for certain data breaches that relate to a specified set of personal information.

Although we maintain cyber and privacy insurance, subject to applicable deductibles and policy limits, such coverage may not extend to all types of privacy and data security incidents, and it may be insufficient to cover all costs and expenses associated with such incidents. Further, such insurance may not continue to be available to us in the future on economically reasonable terms, or at all, and insurers may deny us coverage as to any future claim. The successful assertion of one or more large claims against us that exceed available insurance coverage, or the occurrence of changes in our insurance policies, including premium increases or the imposition of large deductible or co-insurance requirements, could have a material adverse effect on our business, including our financial condition, operating results, and reputation.

***The global COVID-19 pandemic has significantly affected our business and operations.***

The full extent to which the COVID-19 pandemic and the various responses to it, or recovery from the COVID-19 pandemic, impact our business, operations, and financial results will depend on numerous evolving factors that we may not be able to accurately predict, including, but not limited to:

- the duration and scope of the pandemic, including any potential future waves of the pandemic, both globally and within the United States;
  - governmental, business, and individuals' actions that have been and continue to be taken in response to the pandemic; and post-pandemic, such as inflation and interest rate increases brought on by loose monetary policy during the pandemic;
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- disruptions in supply chain materials that support our Platform;
- the availability of and cost to access the capital markets;
- the effect of the pandemic on our developers, creators, and users;
- the availability of effective vaccines against current and new subvariants of COVID-19;
- disruptions or restrictions on our employees' ability to work and travel;
- interruptions related to our infrastructure and partners; and
- changes to consumer behavior or spending patterns as economies recover and societies return to more normal activities.

Initially, the COVID-19 pandemic and resulting social distancing, shelter-in-place and similar restrictions led to increased developer, creator, and user engagement on our Platform relative to our quarterly forecast and historic trends. Those increases in user activity are not indicative of our financial and operating results in future periods. We have seen growth rates and other operating metrics moderate as vaccination rates have grown, children have returned to in person classrooms, and people have adjusted to living with COVID-19, although users and engagement levels remain higher than before the onset of the COVID-19 pandemic. The long-term effects of the COVID-19 pandemic and recovery from it on society and developer, creator, and user engagement remain uncertain and there is no assurance that developer, creator, and user engagement will not continue to decrease, including below historic levels, as the circumstances that accelerated the growth of our business stemming from the effects of the COVID-19 pandemic are not likely to continue.

***We rely on suppliers for certain components of the equipment we use to operate our Platform and any disruption in the availability of these components could delay our ability to expand or increase the capacity of our Platform or replace defective equipment.***

We rely on suppliers for several components of the equipment we use to operate our Platform. Our reliance on these suppliers exposes us to risks, including reduced control over production costs and constraints based on the current availability, terms, and pricing of these components. While the network equipment and servers we purchase generally are commodity equipment and we believe an alternative supply source for network equipment and servers on substantially similar terms could be identified quickly, our business could be adversely affected until those efforts are completed. In addition, the technology equipment industry has experienced component shortages and delivery delays, and we have and may in the future experience shortages or delays, including as a result of increased demand in the industry, natural disasters, or our suppliers lacking sufficient rights to supply the components in all jurisdictions in which we have data centers and edge data centers that support our Platform. For example, the ongoing COVID-19 pandemic and supply chain constraints for servers and other equipment required for our operations has resulted and could in the future result in disruptions and delays for these components and the delivery and installation of such components at our data centers and edge data centers. If our supply of certain components is disrupted or delayed, there can be no assurance that additional supplies or components can serve as adequate replacements for the existing components or that supplies will be available on terms that are favorable to us, if at all. Any disruption or delay in the supply of our hardware components may delay the opening of new data centers, edge data centers, co-location facilities or the creation of fully redundant operations, limit capacity expansion, or replacement of defective or obsolete equipment at existing data centers and edge data centers or cause other constraints on our operations that could damage our ability to serve our developers, creators, and users.

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***We have seen the growth rate of our users fluctuate and expect it to continue to change over time. If we fail to retain users or add new users, or if our users decrease their level of engagement with our Platform, revenue, bookings, and operating results will be harmed.***

During the year ended December 31, 2022, we averaged 56.0 million DAUs. We view DAUs as a critical measure of our user engagement, and adding, maintaining, and engaging users has been and will continue to be necessary to our continued growth. Our DAU growth rate has fluctuated in the past and may slow in the future due to various factors including: the introduction of new experiences or virtual items on our Platform, COVID-19 shelter in place orders, performance issues with our Platform, higher market penetration rates, the availability of our Platform across markets and user demographics, and competition from a variety of entertainment sources for our users and their time could also cause our growth rates to fluctuate. For example, while our DAUs have grown sequentially on a quarterly basis for most of the last several years, there have been months where they have not or have grown at a slower pace, often due to seasonal or other factors. To some extent, seasonal factors may have been impacted by the COVID-19 pandemic and we expect that seasonality could again cause user activity to decrease, including below historical levels. In addition, our strategy seeks to expand the age groups and geographic markets that make up our users, and if and when we achieve maximum market penetration rates among any particular user cohort overall and in particular geographic markets, future growth in DAUs will need to come from other age or geographic cohorts in other markets, which may be difficult, costly or time consuming for us to achieve. Accessibility to the internet and bandwidth or connectivity limitations as well as regulatory requirements, may also affect our ability to further expand our user base in a variety of geographies. If our DAU growth rate slows or becomes stagnant, or we have a decline in DAUs, or we fail to effectively monetize users in certain geographic markets, our financial performance will increasingly depend on our ability to elevate user activity or increase the monetization of our users.

Our business plan assumes that the demand for interactive entertainment offerings, specifically, the adoption of a metaverse with users interacting together by playing, communicating, connecting, working, making friends, learning, or simply hanging out, all in 3D environments, will increase for the foreseeable future. However, if this market shrinks or grows more slowly than anticipated, if the metaverse does not gain widespread adoption as a forum for experiences, social interaction and creative expression for our users, or if demand for our Platform does not grow as quickly as we anticipate, whether as a result of competition, product obsolescence, budgetary constraints of our developers, creators, and users, technological changes, unfavorable economic conditions, uncertain geopolitical or regulatory environments or other factors, we may not be able to increase our revenue and bookings sufficiently to ever achieve profitability and our stock price would decline.

The multitude of other entertainment options, online gaming, and other interactive experiences is high, making it difficult to retain users who are dissatisfied with our Platform and seek other entertainment options. Moreover, a large number of our users are under the age of 13. This demographic may be less brand loyal and more likely to follow trends, including viral trends, than other demographics. These and other factors may lead users to switch to another entertainment option rapidly, which can interfere with our ability to forecast usage or DAUs and would negatively affect our user retention, growth, and engagement. We also may not be able to penetrate other demographics in a meaningful manner to compensate for the loss of DAUs in this age group. Falling user retention, growth, or engagement rates could seriously harm our business.

***The loss of one or more of the members of our senior management team or other key personnel (or the inability to attract senior management or other key personnel), in particular our Founder, President, CEO and Chair of our Board of Directors, David Baszucki, could significantly harm our business.***

We depend on the continued services and performance of our Founder, President, CEO and Chair of our Board of Directors, David Baszucki, members of our senior management team and other key personnel. David Baszucki has been responsible for our strategic vision, and should he stop working for us for any reason, it is unlikely that we would be able to immediately find a suitable replacement. We do not maintain key man life insurance for David Baszucki, and do not believe any amount of key man insurance would allow us to recover from the harm to our business if David Baszucki were to leave the Company for any reason. Similarly, members of our senior management team and other key personnel are highly sought after and others may attempt to encourage these individuals to leave the Company. The loss of one or more of the members of the senior management team or other key personnel for any reason, or the inability to attract new or replacement members of our senior management team or other key personnel in the future, could disrupt our operations, create uncertainty among investors, adversely impact employee retention and morale, and significantly harm our business.

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***We must continue to attract and retain highly qualified personnel in very competitive markets to continue to execute on our business strategy and growth plans.***

To execute our growth plan, we must hire a large number of employees over the next few years. In addition, we need to retain our highly qualified employees. We face intense competition from other internet and high growth publicly-traded and private companies, especially with respect to engineers with high levels of experience in our industry, in particular in the San Francisco Bay Area where our headquarters are located. Although a number of companies in the San Francisco Bay Area have implemented layoffs recently and wage growth has tempered in recent months, unemployment in the U.S. remains below historical levels, and we continually evaluate our strategy for attracting, compensating and retaining our employees.

We have, from time to time, experienced, and we expect to continue to experience, difficulty in hiring and retaining employees with the appropriate level of qualifications. Many of the companies with which we compete for qualified employees have greater resources than we have and may offer compensation packages that are perceived to be better than ours. For example, we offer equity awards to a substantial majority of our job candidates and existing employees as part of their overall compensation package. If the perceived value of our equity awards declines, including as a result of volatility or declines in the market price of our Class A common stock or changes in perception about our future prospects, it may adversely affect our ability to recruit and retain highly qualified employees. Certain of our employees have received, and may in the future receive, significant proceeds from sales of our equity in the public markets, which may reduce their motivation to continue to work for us. Additionally, changes in our compensation structure may be negatively received by employees and result in attrition or cause difficulty in the recruiting process. We face intense competition for qualified individuals from numerous technology companies. We may incur significant costs to attract and retain these qualified individuals, and we may lose new employees to our competitors or other technology companies before we realize the benefit of our investment in recruiting and training them. Further, our current and future office environments or work policies may not meet the expectations of our employees or prospective employees, and we may experience attrition as we transition to a primarily in-office hybrid work environment as certain employees may desire to remain fully remote. If we fail to attract new employees or fail to retain and motivate our current employees, our business and future growth prospects could be adversely affected. Changes in immigration laws or varying applications of immigration laws to limit the availability of certain work visas or increase visa fees in the U.S. may impact our ability to hire the engineering and other talent that we need to continue to enhance our Platform, which could have an adverse impact on our business, financial condition, and results of operations. It is difficult to predict the political and economic events that could affect immigration laws, or the restrictive impact they could have on obtaining or renewing work visas for our technology professionals.

***Our corporate culture has contributed to our success, and if we cannot maintain this culture as we grow, we could lose the innovative approach, creativity, and teamwork fostered by our culture and our business could be harmed.***

We believe that a critical component of our success has been our culture. We have invested substantial time and resources in building out our team with an emphasis on shared values and a commitment to diversity and inclusion. As we continue to grow and develop the infrastructure associated with being a public company and hybrid work model, we will need to expend significant efforts to maintain our culture among a larger number of employees dispersed in various geographic regions. A hybrid work model may create challenges, including challenges maintaining our corporate culture, increasing attrition or limiting our ability to attract employees if individuals prefer to continue working full time at home or in the office. Any failure to preserve our culture could negatively affect our future success, including our ability to retain and recruit personnel and to effectively focus on and pursue our mission to connect a billion people with optimism and civility.

***If we are unable to successfully grow our user base, compete effectively with other platforms, and further monetize our Platform, our business will suffer.***

We have made, and are continuing to make, investments to enable our developers to design and build compelling content and deliver it to our users on our Platform. Existing and prospective developers may not be successful in creating content that leads to and maintains user engagement (including maintaining the quality of experiences) or they may fail to expand the types of experiences that our developers can build for users, and other global entertainment companies, online content platforms, and social platforms may entice our users and potential users away from, or to spend less time with, our Platform, each of which could adversely affect users' interest in our Platform and lead to a loss of revenue opportunities and harm our results of operations.

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Additionally, we may not succeed in further monetizing our Platform and user base. As a result, our user growth, user engagement, financial performance and ability to grow revenue could be significantly harmed if:

- we fail to increase or maintain DAUs;
- our user growth outpaces our ability to monetize our users, including if our user growth occurs in markets that are not profitable;
- we fail to establish an international base of our developers, creators, and users;
- we fail to provide the tools and education to our developers and creators to enable them to monetize their experiences;
- we fail to establish a successful advertising model;
- we fail to increase or maintain the amount of time spent on our Platform, the number of experiences that our users share and explore with friends, or the usage of our technology for our developers;
- we do not develop and establish the social features of our Platform, allowing it to more broadly serve the entertainment, education, and business markets;
- we fail to increase penetration and engagement across all age demographics or measures intended to make our Platform more attractive to older-age verified users create the perception that our Platform is not safe for young users;
- developers do not create engaging or new experiences for users;
- users reduce their purchases of Robux on our Platform; or
- the experiences on our Platform do not maintain or gain popularity.

If we are able to continue to grow, we will need to manage our growth effectively, which could require expanding our internal IT systems, technological operations infrastructure, financial infrastructure, and operating and administrative systems and controls. In addition, we have expended in the past and may in the future expend significant resources to launch new features and changes on our Platform that we are unable to monetize, which may significantly harm our business. Any future growth would add complexity to our organization and require effective coordination across our organization, and an inability to do so would adversely affect our business, financial conditions and results of operations.

We introduced our users to offerings for Robux that are subscription-based. While we intend for these efforts to generate increased recurring revenues from our existing user base, they may cause users to decrease their purchases of Robux and decrease these users' overall spend on our Platform. Our ability to continue to attract and retain users of our paid subscription services will depend in part on our ability to consistently provide our subscribers with a quality experience. If our users do not perceive these offerings to be of value, or if we introduce new or adjust existing features or pricing in a manner that is not favorably received by them, we may not be able to attract and retain subscribers or be able to convince users to become subscribers of such additional service offerings, and we may not be able to increase the amount of recurring revenue from our user base. Subscribers may cancel their subscription to our service for many reasons, including a perception that they do not use the service sufficiently, the need to reduce household expenses, competitive services that provide a better value or experience or as a result of changes in pricing. If our efforts to attract and retain subscribers are not successful, our business, operating results, and financial condition may be adversely impacted.

***We rely on a very small percentage of our total users for a significant majority of our revenue and bookings that we derive from our Platform.***

We generate substantially all of our revenue through the sales of our virtual currency, "Robux," which players can use to acquire virtual items developed by our developer and creator community on the Platform. Only a small portion of our users regularly purchase Robux compared to all users who use our Platform in any period. We rely on our developers to create engaging content that drives users to acquire digital items to enhance their enjoyment. If users fail to purchase Robux at rates similar to or greater than they have historically and if we fail to attract new paying users, or if our paying users fail to continue interacting with the Platform and purchasing Robux as they increase in age, our revenue will suffer.

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***Introduction of new technology could harm our business and results of operations.***

The market for a human co-experience platform is a new and evolving market characterized by rapid, complex and disruptive changes in technology and user, developer, and creator demands that could make it difficult for us to effectively compete. The expectations and needs of our users, developers, and creators are constantly evolving. Our future success depends on a variety of factors, including our continued ability to innovate, introduce new products and services efficiently, enhance and integrate our products and services in a timely and cost-effective manner, extend our core technology into new applications, and anticipate technological developments. If we are unable to react quickly to new technology trends—for example the continued growth of generative AI solutions which disrupts the ways developers create experiences or may disrupt the way users consume virtual goods, it may harm our business and results of operation. In addition, our use of generative AI in aspects of our Platform may present risks and challenges that could increase as artificial intelligence solutions become more prevalent. For example, artificial intelligence algorithms may be flawed. Datasets may be insufficient or contain biased information. These deficiencies and other failures of artificial intelligence systems could subject us to competitive harm, regulatory action, legal liability and brand or reputational harm.

***The expansion of our Platform outside the United States exposes us to risks inherent in international operations.***

We operate our Platform throughout the world and are subject to risks and challenges associated with international business. For the year ended December 31, 2022, approximately 77% of our DAUs and 34% of our revenue was derived from outside the U.S. and Canada region. We intend to continue to expand internationally, and this expansion is a critical element of our future business strategy. However, as we continue to expand internationally, including into developing countries where consumer discretionary spending is relatively weak, while our DAUs increase, the growth rate of our bookings could decelerate due to weaker spending by users from those regions, and our ABPDAU has been and may continue to be negatively impacted. While we have a number of developers, creators, and users outside of the U.S., we have limited offices located outside of the U.S. and Canada, and there is no guarantee that our international efforts will be successful. The risks and challenges associated expanding our international presence, having developers, creators, and users outside the U.S. and those that can affect international operations generally and negatively impact our business and results of operations, include:

- greater difficulty in enforcing contracts and managing collections in countries where our recourse may be more limited, as well as longer collection periods;
  - higher costs of doing business internationally, including costs incurred in complying with local regulations related to privacy, data security, data protection, content monitoring, preclusion, and removal, and online entertainment offerings, particularly as these rules apply to interactions with children, and establishing and maintaining office space for our international operations;
  - double taxation of our international earnings and potentially adverse tax consequences due to changes in the tax laws of the U.S. or the foreign jurisdictions in which we operate;
  - compliance with multiple, ambiguous, or evolving governmental laws and regulations, including those relating to employment, tax, content regulation, privacy, data protection, anti-corruption, import/export, customs, anti-boycott, sanctions and embargoes, antitrust, data transfer, storage and security, content monitoring, preclusion, and removal, advertising and consumers in general, and industry-specific laws and regulations, localization of our services, including translation into foreign languages and associated expenses;
  - expenses related to monitoring and complying with differing labor regulations, especially in jurisdictions where labor laws may be more favorable to employees than in the U.S.;
  - increased exposure to fluctuations in exchange rates between the U.S. dollar and foreign currencies in markets where we do business, in particular the strengthening of the U.S. dollar;
  - challenges inherent to efficiently recruiting and retaining talented and capable employees in foreign countries and maintaining our company culture and employee programs across all of our offices;
  - management communication and integration problems resulting from language or cultural differences and geographic dispersion;
  - the uncertainty of protection for intellectual property in some countries;
  - the uncertainty of our exposure to third-party claims of intellectual property infringement and the availability of statutory safe harbors in some countries;
  - foreign exchange controls that might prevent us from repatriating cash earned outside the U.S.;
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- risks associated with trade restrictions and foreign legal requirements, and greater risk of unexpected changes in regulatory requirements, tariffs and tax laws, trade laws, and export and other trade restrictions;
- risks relating to the implementation of exchange controls, including restrictions promulgated by the Office of Foreign Asset Control, and other similar trade protection regulations and measures;
- exposure to regional or global public health issues, and to travel restrictions and other measures undertaken by governments in response to such issues;
- general economic and political conditions in these foreign markets, including political and economic instability in some countries;
- the ability to monitor our Platform in new and evolving markets and in different languages to confirm that we maintain standards consistent with our brand and reputation;
- regulatory frameworks or business practices favoring local competitors;
- changes in the perception of our Platform by governments in the regions where we operate or plan to operate;
- uncertainty regarding the imposition of and changes in the U.S.' and other governments' trade regulations, trade wars, tariffs, other restrictions or other geopolitical events, and without limitation, including the evolving relations between the U.S. and China and evolving relations with Russia due to Russia's invasion of Ukraine;
- natural disasters, acts of war, and terrorism, and resulting changes to laws and regulations, including changes oriented to protecting local businesses;
- difficulties in hiring highly qualified employees internationally and managing foreign operations; and
- regional economic and political conditions.

These and other factors could harm our ability to generate revenue and bookings outside of the U.S. and, consequently, adversely affect our business, financial condition and results of operations. We may not be able to expand our business and attract users in international markets and doing so will require considerable management attention and resources. International expansion is subject to the particular challenges of supporting a business in an environment of multiple languages, cultures, customs, legal systems, alternative dispute systems, regulatory systems and commercial infrastructures. We may not be able to offer our Platform in certain countries, and expanding our international focus may subject us to risks that we have not faced before or increase risks that we currently face.

***Our user metrics and other estimates are subject to inherent challenges in measurement, and real or perceived inaccuracies in those metrics may significantly harm and negatively affect our reputation and our business.***

We regularly review metrics, including our DAUs, hours engaged, user demographics and ABPDAU to evaluate growth trends, measure our performance, and make strategic decisions. These metrics are calculated using internal data gathered on an analytics platform that we developed and operate and have not been validated by an independent third party. Our metrics and estimates may also differ from estimates published by third parties or from similarly titled metrics of our competitors due to differences in methodology or the assumptions on which we rely. If our estimates are inaccurate, then investors will have less confidence in our company and our prospects, which could cause the market price of our Class A common stock to decline, and our reputation and brand could be harmed.

While these metrics are based on what we believe to be reasonable estimates of our user base for the applicable period of measurement, there are inherent challenges in measuring how our Platform is used and as a result, the metrics may overstate the number of DAUs, hours engaged, and ABPDAU. For example, there are users who have multiple accounts, fake user accounts, or fraudulent accounts created by bots to inflate user activity for a particular developer or creator on our Platform, thus making the developer's or creator's experience or other content appear more popular than it really is. We strive to detect and minimize fraud and unauthorized access to our Platform, and these practices are prohibited in our terms of service and we implement measures to detect and suppress that behavior. Some of our demographic data may be incomplete or inaccurate. For example, because users self-report their dates of birth, our age demographic data may differ from our users' actual ages. If our users provide us with incorrect or incomplete information regarding their age or other attributes, then our estimates may prove inaccurate.

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Errors or inaccuracies in our metrics or data could also result in incorrect business decisions and inefficiencies. For instance, if a significant understatement or overstatement of active users were to occur, we may expend resources to implement unnecessary business measures or fail to take required actions to attract a sufficient number of users to satisfy our growth strategies. If our developers do not perceive our user, geographic, or other demographic metrics to be accurate representations of our user base, or if we discover material inaccuracies in our user, geographic, or other demographic metrics, our reputation may be seriously harmed. Our developers, creators and partners may also be less willing to allocate their budgets or resources to our Platform, which could seriously harm our business.

***Some developers, creators, and users on our Platform may make unauthorized, fraudulent, or illegal use of Robux and other digital goods or experiences on our Platform, including through unauthorized third-party websites or “cheating” programs.***

Robux and digital goods on our Platform have no monetary value outside of our Platform, but users have made and may in the future make unauthorized, fraudulent, or illegal sales and/or purchases of Robux and other digital goods on or off of our Platform, including through unauthorized third-party websites in exchange for real-world currency. For example, some users have made fraudulent use of credit cards owned by others on our Platform to purchase Robux and offer the purchased Robux for sale at a discount on a third-party website. For the year ended December 31, 2022, total chargebacks to us from this fraud was approximately 3.16% of bookings.

While we regularly monitor and screen usage of our Platform with the aim of identifying and preventing these activities, and regularly monitor third-party websites for fraudulent Robux or digital goods offers as well as regularly send cease-and-desist letters to operators of these third-party websites, we are unable to control or stop all unauthorized, fraudulent, or illegal transactions in Robux or other digital goods that occurs on or off of our Platform. Although we are not directly responsible for such unauthorized, fraudulent, and/or illegal activities conducted by these third parties, our user experience may be adversely affected, and users and/or developers may choose to leave our Platform if these activities are pervasive. These activities may also result in negative publicity, disputes, or even legal claims, and measures we take in response may be expensive, time consuming, and disruptive to our operations.

In addition, unauthorized, fraudulent, and/or illegal purchases and/or sales of Robux or other digital goods on or off of our Platform, including through third-party websites, bots, fake accounts, or “cheating” or malicious programs that enable users to exploit vulnerabilities in the experiences on our Platform or our partners’ websites and platforms, could reduce our revenue and bookings by, among other things, decreasing revenue from authorized and legitimate transactions, increasing chargebacks from unauthorized credit card transactions, causing us to lose revenue and bookings from dissatisfied users who stop engaging with the experiences on our Platform, or increasing costs we incur to develop technological measures to curtail unauthorized transactions and other malicious programs.

Under our community rules for our Platform, which developers, creators and users are obligated to comply with, we reserve the right to temporarily or permanently ban individuals for breaching our Terms of Use by violating applicable law or Roblox policies which include engaging in illegal activity on the Platform. We have banned individuals as a result of unauthorized, fraudulent, or illegal use of Robux or other digital goods on our Platform. We have also employed technological measures to help detect unauthorized Robux transactions and continue to develop additional methods and processes through which we can identify unauthorized transactions and block such transactions. However, there can be no assurance that our efforts to prevent or minimize these unauthorized, fraudulent, or illegal transactions will be successful.

***Our business is highly competitive and subject to rapid changes. We face significant competition to attract and retain our users, developers, and creators that we anticipate will continue to intensify. Should we fail to attract and retain users, developers, and creators, our business and results of operations may suffer.***

We compete for both users and developers and creators. We compete to attract and retain our users’ attention on the basis of our content and user experiences. We compete for users and their engagement hours with global technology leaders such as Amazon, Apple, Meta Platforms, Google, Microsoft, and Tencent, global entertainment companies such as Comcast, Disney, and ViacomCBS, global gaming companies such as Activision Blizzard, Electronic Arts, Take-Two, Epic Games, Krafton, and Valve, online content platforms including Netflix, Spotify, and YouTube, as well as social platforms such as Facebook, TikTok, Instagram, Pinterest, Twitter, Reddit, Discord and Snap.

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We rely on developers to create the content that leads to and maintains user engagement (including maintaining the quality of experiences). We compete to attract and retain developers by providing developers the tools to easily build, publish, operate, and monetize content. We compete for developers and engineering talent with gaming and metaverse platforms such as Epic Games, Unity, Meta Platforms, and Valve Corporation, which also give developers the ability to create or distribute interactive content.

We do not have any agreements with our developers that require them to continue to use our Platform for any time period. Some of our developers have developed attractive businesses in developing content, including games, on our Platform. In the future, if we are unable to continue to provide value to these developers and they have alternative methods to publish and commercialize their offerings, they may not continue to provide content to our Platform. Should we fail to provide compelling advantages to continued use of our ecosystem to developers, they may elect to develop content on competing interactive entertainment platforms. If a significant number of our developers no longer provide content, we may experience an overall reduction in the quality of our experiences, which could adversely affect users' interest in our Platform and lead to a loss of revenue opportunities and harm our results of operations.

Many of our existing competitors have, and some of our potential competitors could have, substantial competitive advantages, such as:

- larger sales and marketing budgets and resources;
- broader and more established relationships with users, developers, and creators;
- greater resources to make acquisitions and enter into strategic partnerships;
- lower labor and research and development costs;
- larger and more mature intellectual property portfolios; and
- substantially greater financial, technical, and other resources.

We expect competition to continue to increase in the future. Conditions in our market could change rapidly and significantly as a result of technological advancements, the emergence of new entrants into the market, partnering or acquisitions by our competitors, continuing market consolidation, or changing developer, creator and user preferences, which can be difficult to predict or prepare for. Our competitors vary in size, and some may have substantially broader and more diverse offerings or may be able to adopt more lucrative payment policies or structures for developers. Failure to adequately identify and adapt to these competitive pricing pressures could negatively impact our business.

***We focus our business on our developers, creators, and users, and acting in their interests in the long-term may conflict with the short-term expectations of analysts and investors.***

A significant part of our business strategy and culture is to focus on long-term growth and developer, creator, and user experience over short-term financial results. We expect our expenses to continue to increase in the future as we broaden our developer, creator, and user community, as developers, creators, and users increase the amount and types of experiences and virtual items they make available on our Platform and the content they consume, as we continue to seek ways to increase payments to our developers and as we develop and further enhance our Platform, expand our technical infrastructure and data centers, and hire additional employees to support our expanding operations. As a result, in the near- and medium-term, we may continue to operate at a loss, or our near- and medium-term profitability may be lower than it would be if our strategy were to maximize near- and medium-term profitability. We expect to continue making significant expenditures to grow our Platform and develop new features, integrations, capabilities, and enhancements to our Platform for the benefit of our developers, creators, and users. Such expenditures may not result in improved business results or profitability over the long-term. If we are ultimately unable to achieve or improve profitability at the level or during the time frame anticipated by securities or industry analysts, investors and our stockholders, the trading price of our Class A common stock may decline.

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***We rely on third-party distribution channels to facilitate Robux purchases by our Platform users. If we are unable to maintain a good relationship with such providers, if their terms and conditions change, or fail to process or ensure the safety of users' payments, our business will suffer.***

Purchases of Robux and other products (e.g., prepaid gift cards) on our Platform are facilitated through third-party online distribution channels. We utilize these distribution channels, such as Amazon, Apple, Blackhawk, ePay, Google, Incomm, PayPal, Vantiv, Stripe, and Xsolla, to receive cash proceeds from sales of our Robux through direct purchases on our Platform. Any scheduled or unscheduled interruption in the ability of our users to transact with these distribution channels could adversely affect our payment collection and, in turn, our revenue and bookings.

Our business will suffer if we are unable to maintain a good relationship with these distribution channels or develop relationships with new and emerging channels, if their terms and conditions or fee structure changes to our detriment, if we violate, or if a channel believes that we have violated, their terms and conditions, or if any of these distribution channels loses market share or falls out of favor or is unavailable for a prolonged period of time. Any changes that affect our use of these distribution channels may decrease the visibility or availability of our Platform, limit our distribution capabilities, prevent access to our Platform, or result in the exclusion or limitation of our Platform on those distribution channels.

We do not directly process purchases of Robux on our Platform, and, thus, any information on those purchases (e.g., debit and credit card numbers and expiration dates, personal information, and billing addresses) is disclosed to the third-party online platform and service providers facilitating Robux purchases by users. We do not have control over the security measures of those providers, and their security measures may not be adequate. We could be exposed to litigation and possible liability if our users' transaction information involving Robux purchases is compromised, which could harm our reputation and our ability to attract users and may materially adversely affect our business.

We also rely on the stability of such distribution channels and their payment transmissions to ensure the continued payment services provided to our users. If any of these providers fail to process or ensure the security of users' payments for any reason, our reputation may be damaged and we may lose our paying users, and users may be discouraged from purchasing Robux in the future, which, in turn, would materially and adversely affect our business, financial condition, and prospects.

In addition, from time to time, we encounter fraudulent use of payment methods, which could impact our results of operations and if not adequately controlled and managed could create negative consumer perceptions of our service. If we are unable to maintain our fraud and chargeback rate at acceptable levels, card networks may impose fines, our card approval rate may be impacted and we may be subject to additional card authentication requirements. The termination of our ability to process payments on any major payment method would significantly impair our ability to operate our business.

***We may require additional capital to meet our financial obligations and support business growth, and this capital might not be available on acceptable terms or at all.***

We intend to continue to make significant investments to support our business growth and may require additional funds to respond to business challenges, including the need for developers and creators to develop new experiences and virtual items, enhance our existing experiences, improve our operating infrastructure or acquire complementary businesses, personnel and technologies. Accordingly, we may need to engage in additional equity or debt financings to secure additional funds. If we raise additional funds through future issuances of equity or convertible debt securities, our existing stockholders could suffer significant dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of our Class A common stock. Any debt financing that we secure in the future could involve offering security interests and undertaking restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. The trading prices of technology companies have been highly volatile as a result of the COVID-19 pandemic, the conflict in Ukraine, market downturn, inflation, and growing fears of a national or global recession, which may reduce our ability to access capital on favorable terms or at all. In addition, a recession, depression, or other sustained adverse market event could adversely affect our business and the value of our Class A common stock. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, our ability to continue to support our business growth and to respond to business challenges could be significantly impaired, and our business, financial condition or results of operations may be harmed.

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***Our results of operations may be harmed if we are required to collect sales, value added, or other similar taxes for the purchase of our virtual currency.***

Although we, either directly or through our third-party distribution channels, collect and remit taxes from users in certain countries and regions, there are some jurisdictions in which we operate where we do not currently collect taxes from users. One or more states or countries may seek to impose past, incremental or new sales, value added, or other tax collection obligations on us. A successful assertion by a state, country, or other jurisdiction that we should have been or should be collecting additional sales, value added, or other taxes could, among other things, result in substantial tax payments, create significant administrative burdens for us, discourage potential users, developers or creators from subscribing to our Platform due to the incremental cost of any such sales or other similar taxes, or otherwise harm our business, results of operations, and financial condition.

***The popularity of our Lua scripting language for customization of and creation of virtual worlds and virtual goods and services is a key driver of content creation and engagement with our Platform. If other programming languages or platforms become more popular with our developers, it may affect engagement with and content creation for our Platform and our business may be harmed.***

Roblox experiences are programmed using Lua scripting language on the Roblox Platform. In order to enhance the attractiveness of our Platform to potential developers, we have made the Lua scripting language available without charge. The Lua scripting language permits developers on the Roblox Platform to develop customized add-on features for their own or others' use, and we have trained our developers on how to write add-on programs using Lua scripting language. As part of this strategy, we have encouraged the development of an active community of Lua programmers similar to those which have emerged for other software platforms. The widespread use and popularity of our Lua scripting language is critical to creating engaging content on and demand for our Platform. If developers do not find the Lua scripting language or our Platform simple and attractive for developing content or determine that our Lua scripting language or other features of our Platform are undesirable or inferior to other scripting languages or platforms, or Lua scripting language becomes unavailable for use by the developers for any reason, they may shift their resources to developing content on other platforms and our business may be harmed.

***We rely on Amazon Web Services for a portion of our cloud infrastructure in certain areas, and as a result any disruption of AWS would negatively affect our operations and significantly harm our business.***

We rely on Amazon Web Services ("AWS") a third-party provider for a portion of our backend services, including for some of our high-speed databases, scalable object storage, and message queuing services. For location-based support areas, we outsource certain aspects of the infrastructure relating to our cloud-native Platform. As a result, our operations depend, in part, on AWS' ability to protect their services against damage or interruption due to a variety of factors, including infrastructure changes, human or software errors, natural disasters, power or telecommunications failures, criminal acts, capacity constraints and similar events. Our developers, creators, and users need to be able to access our Platform at any time, without interruption or degradation of performance. Our Platform depends, in part, on the virtual cloud infrastructure hosted in AWS. Although we have disaster recovery plans that utilize multiple AWS availability zones to support our requirements, any incident affecting their infrastructure that may be caused by fire, flood, severe storm, earthquake or other natural disasters, power loss, telecommunications failures, cyber-attacks, terrorist or other attacks, and other similar events beyond our control, could adversely affect our cloud-native Platform. Any disruption of or interference with our use of AWS could impair our ability to deliver our Platform reliably to our developers, creators, and users.

Additionally, threats or attacks from computer malware, ransomware, viruses, social engineering (including phishing attacks), denial of service or other attacks, employee theft or misuse and general hacking have occurred and are becoming more prevalent in our industry, particularly against cloud-native services and vendors of security solutions. If AWS were to experience any of these security incidents, it could result in unauthorized access to, damage to, disablement or encryption of, use or misuse of, disclosure of, modification of, destruction of, or loss of our data or our developers', creators', and users' data or disrupt our ability to provide our Platform or service. A prolonged AWS service disruption affecting our cloud-native Platform for any of the foregoing reasons would adversely impact our ability to serve our users, developers, and creators and could damage our reputation with current and potential users, developers, and creators, expose us to liability, result in substantial costs for remediation, cause us to lose users, developers, and creators, or otherwise harm our business, financial condition, or results of operations. and users. We may also incur significant costs for using alternative hosting cloud infrastructure services or taking other actions in preparation for, or in reaction to, events that damage or interfere with the AWS services we use.

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We have entered into an enterprise agreement with AWS and a supplemental private pricing addendum that will remain in effect until November 2023. In the event that our AWS service agreements are terminated, or there is a lapse of service, elimination of AWS services or features that we utilize, we could experience interruptions in access to our Platform as well as significant delays and additional expense in arranging for or creating new facilities or re-architecting our Platform for deployment on a different cloud infrastructure service provider, which would adversely affect our business, financial condition, and results of operations.

***If we are unable to maintain effective disclosure controls and internal control over financial reporting, our ability to produce timely and accurate financial statements or comply with applicable regulations may be impaired.***

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended ("the Exchange Act"), the Sarbanes-Oxley Act, and the rules and regulations of the listing standards of the NYSE. We expect that the requirements of these rules and regulations will continue to increase our legal, accounting, and financial compliance costs, make some activities more difficult, time-consuming, and costly, and place significant strain on our personnel, systems, and resources.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. We are continuing to develop and refine our disclosure controls and other procedures that are designed to ensure that information required to be disclosed by us in the reports that we will file with the SEC is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms and that information required to be disclosed in reports under the Exchange Act is accumulated and communicated to our principal executive and financial officers. We are also continuing to improve our internal control over financial reporting. In order to maintain and improve the effectiveness of our disclosure controls and procedures and internal control over financial reporting, we have expended, and anticipate that we will continue to expend, significant resources, including accounting-related costs and significant management oversight.

Our current controls and any new controls that we develop may become inadequate because of changes in conditions in our business. In addition, changes in accounting principles or interpretations could also challenge our internal controls and require that we establish new business processes, systems, and controls to accommodate such changes. We have limited experience with implementing the systems and controls that will be necessary to operate as a public company, as well as adopting changes in accounting principles or interpretations mandated by the relevant regulatory bodies. Additionally, if these new systems, controls, or standards and the associated process changes do not give rise to the benefits that we expect or do not operate as intended, it could adversely affect our financial reporting systems and processes, our ability to produce timely and accurate financial reports, or the effectiveness of internal control over financial reporting. Moreover, our business may be harmed if we experience problems with any new systems and controls that result in delays in their implementation or increased costs to correct any post-implementation issues that may arise.

Further, we have identified in the past, and may identify in the future, deficiencies in our controls. Any failure to develop or maintain effective controls or any difficulties encountered in their implementation or improvement could harm our results of operations or cause us to fail to meet our reporting obligations and may result in a restatement of our financial statements for prior periods. Any failure to implement and maintain effective internal control over financial reporting also could adversely affect the results of periodic management evaluations and annual independent registered public accounting firm attestation reports. Ineffective disclosure controls and procedures and internal control over financial reporting could also cause investors to lose confidence in our reported financial and other information, which could have a negative effect on the trading price of our Class A common stock. In addition, if we are unable to continue to meet these requirements, we may not be able to remain listed on the NYSE.

We are required to provide an annual management report on the effectiveness of our internal control over financial reporting. Our independent registered public accounting firm is required to formally attest to the effectiveness of our internal control over financial reporting. Our independent registered public accounting firm may issue a report that is adverse in the event it is not satisfied with the level at which our internal control over financial reporting is documented, designed, or operating. Any failure to maintain effective disclosure controls and internal control over financial reporting could harm our business and could cause a decline in the trading price of our Class A common stock.

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***We may identify material weaknesses or otherwise fail to maintain an effective system of internal controls, which may result in material misstatements of our consolidated financial statements or cause us to fail to meet our periodic reporting obligations.***

We may discover weaknesses in our system of internal financial and accounting controls and procedures that could result in a material misstatement of our consolidated financial statements. Our internal control over financial reporting will not prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected.

If we are not able to comply with the requirements of the Sarbanes-Oxley Act in a timely manner, or if we are unable to maintain proper and effective internal controls over financial reporting, we may not be able to produce timely and accurate financial statements. If that were to happen, our investors could lose confidence in our reported financial information, the trading price of our Class A common stock could decline, and we could be subject to sanctions or investigations by the SEC or other regulatory authorities.

***Operating as a public company requires us to incur substantial costs and requires substantial management attention.***

We have incurred and expect to continue to incur substantial legal, accounting, and other expenses that we did not incur as a private company. For example, we are subject to the reporting requirements of the Exchange Act, the applicable requirements of the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the rules and regulations of the SEC, and the listing standards of the NYSE. The Exchange Act requires, among other things, we file annual, quarterly, and current reports with respect to our business, financial condition, and results of operations. We are also required to maintain effective disclosure controls and procedures and internal control over financial reporting. Compliance with these rules and regulations has increased and will continue to increase our legal and financial compliance costs, and increase demand on our systems. In addition, we may be subject to stockholder activism, which can lead to additional substantial costs, distract management, and impact the manner in which we operate our business in ways we cannot currently anticipate. As a result of disclosure of information in filings required of a public company, our business and financial condition will become more visible, which may result in threatened or actual litigation, including by competitors.

This management team, as a group, has limited experience managing a publicly traded company. As such, our management team may not successfully or efficiently manage our obligations as a public company subject to significant regulatory oversight and reporting obligations under the federal securities laws and the continuous scrutiny of securities analysts and investors. These new obligations and constituents require significant attention from our senior management and could divert their attention away from the day-to-day management of our business, which could adversely affect our business, financial condition, and results of operations.

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***We anticipate that our ongoing efforts related to privacy, data protection, safety, data security, and content review will identify additional instances of misuse of user data or other undesirable activity by third parties on our Platform.***

In addition to our efforts to mitigate cybersecurity risks, we have made and are continuing to make investments in privacy, data protection, user safety, data security, and content review efforts to combat misuse of our services and user data by third parties, including investigations of individuals we have determined to have attempted to access and in some cases, have accessed, user data without authorization. Our internal teams also continually monitor and address any unauthorized attempts to access data stored on servers that we own or control or data available to our third-party customer service providers. As a result of these efforts, we have discovered and disclosed, and anticipate that we will continue to discover and disclose, additional incidents of misuse of or unauthorized access of user data or other undesirable activity by third parties. We have taken steps to protect the data that we have access to, but despite these efforts, our security measures, or those of our third-party service providers, could be insufficient or breached as a result of third-party action, malfeasance, employee errors, service provider errors, technological limitations, defects or vulnerabilities in our Platform or otherwise. Additionally, many of our employees and third-party service providers with access to user data currently are and may in the future be working remotely, which may increase our or our third-party service providers' risk of security breaches or incidents. Moreover, globally there has been an increase in cybersecurity attacks since Russia invaded Ukraine. The risk of state-supported and geopolitical-related cyber-attacks may increase in connection with the war in Ukraine and any related political or economic responses and counter-responses. We may not discover all such incidents or activity or be able to respond to or otherwise address them, promptly, in sufficient respects or at all. Such incidents and activities have in the past, and may in the future, involve the use of user data or our systems in a manner inconsistent with our terms, contracts or policies, the existence of false or undesirable user accounts, theft of in-game currency or virtual items in valid user accounts, and activities that threaten people's safety on- or offline. We may also be unsuccessful in our efforts to enforce our policies or otherwise remediate any such incidents. Any of the foregoing developments, whether actual or perceived, may negatively affect user trust and engagement, harm our reputation and brands, require us to change our business practices in a manner adverse to our business, and adversely affect our business and financial results. Any such developments may also subject us to future litigation and regulatory inquiries, investigations, and proceedings, including from data protection authorities in countries where we offer services and/or have users, which could subject us to monetary penalties and damages, divert management's time and attention, and lead to enhanced regulatory oversight.

***We may not realize the benefits expected through our China joint venture and the joint venture could have adverse effects on our business.***

In February 2019, we entered into a joint venture agreement with Songhua River Investment Limited, referred to as Songhua, an affiliate of Tencent Holdings Ltd. ("Tencent Holdings"), a leading internet company in China and one of the world's largest gaming companies. Under the joint venture agreement, we created Roblox China Holding Corp., referred to as the China JV, of which we own a 51% ownership interest. Through a wholly-owned subsidiary based in Shenzhen named Roblox (Shenzhen) Digital Science and Technology Co., Ltd and branded "Luobu," the China JV is engaged in the development, localization and licensing to creators of a Chinese version of the Roblox Studio and also develops and oversees relations with local Chinese developers. In December 2020, Shenzhen Tencent Computer Systems Co. Ltd ("Tencent"), received a required publishing license from the National Press and Publication Administration of the Chinese government. The license enabled Tencent to publish a localized version of the Roblox Client as a game in China under the name "Luobulesi." The Luobulesi app is not currently available to users in China while we and Tencent build the next version of Luobulesi. Luobu is continuing to focus on creating opportunities for local Chinese developers to learn a localized version of Roblox Studio for building and publishing experiences and content on our global Platform.

Tensions between the U.S. and China have resulted in trade restrictions that could harm our ability to participate in Chinese markets and numerous additional such restrictions have been threatened by both countries. Sustained uncertainty about, or worsening of, current global economic conditions and further escalation of trade tensions between the U.S. and China could result in a global economic slowdown and long-term changes to global trade, including retaliatory trade restrictions that could restrict our ability to operate in China. Because our continued business operations in China are part of our current and future user growth plans, further adverse changes in the economic and political policies relating to China could have a material adverse effect on our business. The U.S. government, for example, has in the past barred or threatened to bar U.S. companies from doing business with certain Chinese technology companies. The Chinese government has, in turn, threatened to restrict the investment or trade privileges of companies that stop doing business with Chinese companies as a result of this or other similar rules. We may find it difficult or impossible to comply with these or other conflicting regulations in the U.S. and China, which could make it difficult or impossible to achieve our business objectives in China or realize a return on our investment in this market.

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Relations may also be compromised if the U.S. pressures the Chinese government regarding its monetary, economic, or social policies. Changes in political conditions in China and changes in the state of China-U.S. relations are difficult to predict and could adversely affect the operations or financial condition of the China JV. In addition, because of our proposed involvement in the Chinese market, any deterioration in political or trade relations might cause a public perception in the U.S. or elsewhere that might cause our products to become less attractive. The Committee on Foreign Investment in the U.S. has continued to apply a more stringent review of certain foreign investment in U.S. companies, including investment by Chinese entities, and has made inquiries to us with respect to Tencent Holding's equity investment in us and involvement in the China JV. We cannot predict what effect any further inquiry by the Committee on Foreign Investment in the U.S. into our relationship with Tencent and Tencent Holdings or changes in China-U.S. relations overall may have on our ability to effectively support the China JV or on the operations or success of the China JV.

The Chinese economic, legal, and political landscape also differs from other countries in many respects, including the level of government involvement and regulation, control of foreign exchange and allocation of resources and uncertainty regarding the enforceability and scope of protection for intellectual property rights. The laws, regulations and legal requirements in China are also subject to frequent changes and the exact obligations under and enforcement of laws and regulations are often subject to unpublished internal government interpretations and policies which makes it challenging to ascertain compliance with such laws. For example, laws and regulations limit the time users within China under the age of 18 can spend on entertainment platforms such as Roblox to one hour each day on Friday, Saturday, Sunday and on certain holidays only. China also recently adopted new online privacy laws. We may incur increased operating expenses related to data security and data protection in China, including with respect to access to user data and confidential company information as well as any network interconnections and cross border system integrations. Any unauthorized access to such data, networks, or systems, or the mere perception thereof, could have a significant negative impact on our reputation and lead to increased regulatory inquiry and oversight.

The publishing license granted to Tencent in December 2020 could be withdrawn if we fail to comply with any existing or future regulations, which could significantly impair or eliminate the ability to publish and operate Luobulesi in China. Any actions and policies adopted by the Chinese government, particularly with regard to intellectual property rights and internet restrictions for non-Chinese businesses, or any prolonged slowdown in China's economy, could have an adverse effect on our business, results of operations and financial condition.

In addition to market and regulatory factors, any future success of the China JV will require a collaborative effort with Tencent to build and operate Luobu and Luobulesi as together, they will form the exclusive basis for growing our penetration in the China market. In addition, upon the occurrence of certain events, such as a termination of certain of the contractual relationships applicable to Luobu, a change of control of us, or the acquisition of 20% of our outstanding securities by certain specified Chinese industry participants, we may be required to purchase Songhua's interest in the China JV at a fair market value determined at the time of such purchase. Any future requirement to purchase the interest in China JV from Songhua may have a material adverse effect upon our liquidity, financial condition, and results of operations both as a result of the purchase of such interests and the fact that we would need to identify and partner with an alternative Chinese partner in order for operations to continue in the China market.

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***Our business and results of operations are affected by fluctuations in currency exchange rates.***

As we continue to expand our international operations, we become more exposed to the effects of fluctuations in currency exchange rates. We generally collect revenue from our international markets in the local currency. For the year ended December 31, 2022, approximately 77% of our DAUs and 34% of our revenue was derived from outside the U.S. and Canada region. While we periodically adjust the price of Robux to account for the relative value of this local currency to the U.S. dollar these adjustments are not immediate nor do they typically exactly track the underlying currency fluctuations. As a result, rapid appreciation of the U.S. dollar against these foreign currencies has harmed and may in the future harm our reported results and cause the revenue derived from our foreign users and overall revenue to decrease. In addition, even if we do adjust the cost of our Robux in foreign markets to track appreciation in the U.S. dollar, such appreciation could increase the costs of purchasing Robux to our users outside of the U.S., adversely affecting our business, results of operations and financial condition.

We also incur expenses for employee compensation and other operating expenses at our non-U.S. locations in the local currency. Additionally, global events as well as geopolitical developments, including conflict in Europe and inflation have caused, and may in the future cause, global economic uncertainty and uncertainty about the interest rate environment, which could amplify the volatility of currency fluctuations. Fluctuations in the exchange rates between the U.S. dollar and other currencies could result in the dollar equivalent of our expenses being higher which may not be offset by additional revenue earned in the local currency. This could have a negative impact on our reported results of operations. To date, we have not engaged in any hedging strategies and any such strategies, such as forward contracts, options and foreign exchange swaps related to transaction exposures that we may implement in the future to mitigate this risk may not eliminate our exposure to foreign exchange fluctuations. Moreover, the use of hedging instruments may introduce additional risks if we are unable to structure effective hedges with such instruments.

***We plan to continue to make acquisitions and investments in other companies, which could require significant management attention, disrupt our business, dilute our stockholders, and significantly harm our business.***

As part of our business strategy, we have made and intend to make acquisitions to add specialized employees and complementary companies, features, and technologies. Our ability to acquire and successfully integrate larger or more complex companies, features, and technologies is unproven. In the future, we may not be able to find other suitable acquisition or investment candidates, and we may not be able to complete acquisitions or similar strategic transactions on favorable terms, if at all. The pursuit of potential acquisitions may divert the attention of management and cause us to incur significant expenses related to identifying, investigating and pursuing suitable acquisitions, whether or not they are consummated. Our previous and future acquisitions may not achieve our goals, and any future acquisitions we complete could be viewed negatively by users, developers, creators, partners, or investors. In addition, if we fail to successfully close transactions or integrate new teams into our corporate culture, or fail to integrate the features and technologies associated with these acquisitions, our business could be significantly harmed. Any integration process may require significant time and resources, and we may not be able to manage the process successfully. We may not successfully evaluate or use the acquired products, technology, and personnel, or accurately forecast the financial impact of an acquisition, including accounting charges which could be recognized as a current period expense. We also may not achieve the anticipated benefits of synergies from the acquired business, may encounter challenges with incorporating the acquired features and technologies into our Platform while maintaining quality and security standards consistent with our brand, or may fail to identify security vulnerabilities in acquired technology prior to integration with our technology and Platform. We may also incur unanticipated liabilities that we assume as a result of acquiring companies, including claims related to the acquired company, its offerings or technologies or potential violations of applicable law or industry rules and regulations arising from prior or ongoing acts or omissions by the acquired business that were not discovered during diligence. We will pay cash, incur debt, or issue equity securities to pay for any acquisitions, any of which could significantly harm our business. Selling equity to finance any such acquisition would also dilute our stockholders. Incurring debt would increase our fixed obligations and could also include covenants or other restrictions that would impede our ability to manage our operations.

In addition, it generally takes several months after the closing of an acquisition to finalize the purchase price allocation. Therefore, it is possible that our valuation of an acquisition may change and result in unanticipated write-offs or charges, impairment of our goodwill, or a material change to the fair value of the assets and liabilities associated with a particular acquisition, any of which could significantly harm our business.

Our acquisition strategy may not succeed if we are unable to remain attractive to target companies or expeditiously close transactions. If we develop a reputation for being a difficult acquirer or having an unfavorable work environment, or if target companies view our Class A common stock unfavorably, we may be unable to consummate key acquisition transactions essential to our corporate strategy and our business may be significantly harmed.

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***Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited, each of which could significantly harm our business.***

As of December 31, 2022, we had federal net operating loss carryforwards of \$2,026.6 million, which do not expire, state net operating loss carryforwards of \$893.0 million, which begin to expire in 2023, and foreign net operating loss carryforwards of \$54.5 million, which begin to expire in 2024. Utilization of our net operating loss carryforwards and other tax attributes, such as research and development tax credits, may be subject to annual limitations, or could be subject to other limitations on utilization or benefit due to the ownership change limitations provided by Sections 382 and 383 of the Internal Revenue Code of 1986, as amended (the "Code"), and other similar provisions. All of the \$2,026.6 million of federal net operating losses are carried forward indefinitely but is generally limited to 80% of taxable income. Our net operating loss carryforwards may also be subject to limitations under state law. If our net operating loss carryforwards and other tax attributes expire before utilization or are subject to limitations, our business and financial results could be harmed.

***Changes in existing financial accounting standards or practices may harm our results of operations.***

Changes in existing accounting rules or practices, new accounting pronouncements rules, or varying interpretations of current accounting pronouncements practice could harm our results of operations or the manner in which we conduct our business. Further, such changes could potentially affect our reporting of transactions completed before such changes are effective. GAAP is subject to interpretation by the Financial Accounting Standards Board, the SEC and various bodies formed to promulgate and interpret appropriate accounting principles. We regularly monitor our compliance with applicable accounting principles and review new pronouncements and interpretations that are relevant to us. A change in these principles or interpretations could have a significant effect on our reported financial results and could affect the reporting of transactions completed before the announcement of a change.

Adoption of such changes and any difficulties in implementing these pronouncements could cause us to fail to meet our financial reporting obligations, which could result in regulatory discipline and harm investors' confidence in us.

***Our estimates or judgments relating to our critical accounting policies may be based on assumptions that change or prove to be incorrect, which could cause our results of operations to fall below expectations of securities analysts and investors, resulting in a decline in the market price of our Class A common stock.***

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in our financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, as described in the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations." The results of these estimates form the basis for making judgments about the recognition and measurement of certain assets and liabilities and revenue and expenses that is not readily apparent from other sources. Our accounting policies that involve judgment include those related to revenue recognition, and estimates of the average lifetime of a paying user, assumptions used for estimating the fair value of common stock to calculate stock-based compensation, capitalization of internal-use software costs, valuation of goodwill and intangible assets, certain accrued liabilities, and valuation allowances associated with income taxes. If our assumptions change or if actual circumstances differ from those in our assumptions, our results of operations could be adversely affected, which could cause our results of operations to fall below the expectations of securities analysts and investors, resulting in a decline in the market price of our Class A common stock.

***The stock-based compensation expense related to our RSUs and other outstanding equity awards has increased our expenses in recent periods and may continue to do so in future periods due to grants of RSUs to new and existing employees. We also may expend substantial funds to satisfy a portion of our tax withholding and remittance obligations that arise upon the vesting and/or settlement of certain of our RSUs, which may have an adverse effect on our financial condition and results of operations.***

RSUs that we have granted subsequent to our direct listing vest over a three or four year period. We have also granted performance-based stock unit awards to our executives, which vest based on continued service as well as the Company's stock performance over a three-year performance period.

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In February 2021, our leadership development and compensation committee granted the CEO Long-Term Performance Award, an RSU award under our 2017 Plan to David Baszucki covering 11,500,000 shares of our Class A common stock. We estimated the grant date fair value of the CEO Long-Term Performance Award using a model based on multiple stock price paths developed through the use of a Monte Carlo simulation that incorporates into the valuation the possibility that the achievement of certain price goals may not be satisfied. The weighted-average grant date fair value of the CEO Long-Term Performance Award was estimated to be \$20.19 per share, and we estimate that we will recognize total stock-based compensation expense of approximately \$232.2 million over the derived service period of each of the seven separate tranches of the CEO Long-Term Performance Award that are eligible to vest based on the achievement of certain stock price goals. If the achievement of these stock price goals are met sooner than the derived service period, we will adjust our stock-based compensation expense to reflect the cumulative expense associated with the vested award. We will recognize stock-based compensation expense if service is provided by Mr. Baszucki over the requisite service period, regardless of whether the stock price goals are achieved.

Additionally, we may expend substantial funds in connection with the tax withholding and remittance obligations that arise upon the vesting and/or settlement of our outstanding RSUs, including the CEO Long-Term Performance Award. Under U.S. tax laws, employment and income tax withholding and remittance obligations for RSUs arise in connection with the vesting and settlement of the RSUs. To fund the employment and income tax withholding and remittance obligations arising in connection with the vesting and settlement of vested RSUs that are not otherwise satisfied, we will either (i) withhold shares of our Class A common stock that would otherwise be issued with respect to such vested RSUs and pay the relevant tax authorities in cash to satisfy such tax obligations or (ii) have the holders of such vested RSUs use a broker or brokers to sell a portion of such shares into the market, with the proceeds of such sales to be delivered to us for us to remit to the relevant taxing authorities, in order to satisfy such employment and income tax withholding and remittance obligations. Any such expenditures by us of substantial funds to satisfy a portion of our tax withholding and remittance obligations that arise upon the vesting and/or settlement of RSUs may have an adverse effect on our financial condition and results of operations.

## **Risks Related to Government Regulations**

***We are subject to various governmental export control, trade sanctions, and import laws and regulations that require our compliance and may subject us to liability if we violate these controls.***

We are subject to laws and regulations that could limit our ability to offer access or full access to our Platform and experiences to certain persons and in certain countries or territories. For example, certain U.S. laws and regulations administered and enforced by U.S. Department of the Treasury's Office of Foreign Assets Control, referred to as OFAC, may limit our ability to give users, developers, and creators access to certain aspects of our Platform and experiences. We refer to OFAC collectively with other applicable export control and economic sanctions laws and regulations, as the Trade Control Laws and Regulations. Trade Control Laws and Regulations are complex and dynamic, and monitoring and ensuring compliance can be challenging. In addition, we rely on our payment processors for compliance with certain of these Trade Control Laws and Regulations, preventing paid activity by users, developers, and creators that attempt to access our Platform from various jurisdictions comprehensively sanctioned by OFAC, including Cuba, Iran, North Korea, Syria, and sanctioned regions of Ukraine. Users, developers, and creators from certain of these countries and territories have access to our Platform and experiences and there can be no guarantee we will be found to have been in full compliance with Trade Control Laws and Regulations during all relevant periods. Any failure by us or our payment processors to comply with the Trade Control Laws and Regulations may lead to violations of the Trade Control Laws and Regulations that could expose us to liability. Additionally, following Russia's invasion of Ukraine, the United States and other countries imposed certain economic sanctions and severe export control restrictions against Russia, and the United States and other countries could impose wide sanctions and export restrictions and take other actions should the conflict further escalate. Any failure to comply with applicable laws and regulations also could have negative consequences for us, including reputational harm, government investigations, and monetary penalties.

In addition, various foreign governments may also impose controls, export license requirements, and/or restrictions applicable to our Platform and experiences. Compliance with such applicable regulatory requirements may create delays in the introduction of our Platform in some international markets or prevent certain international users from accessing our Platform.

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***Changes in tax laws could have a material adverse effect on our business, cash flow, results of operations or financial conditions.***

We are subject to tax laws, regulations, and policies of several taxing jurisdictions. Changes in tax laws, as well as other factors, could cause us to experience fluctuations in our tax obligations and effective tax rates and otherwise adversely affect our tax positions and/or our tax liabilities. For example, the United States recently enacted a 1% excise tax on stock buybacks and a 15% alternative minimum tax on adjusted financial statement income. Further, many countries, and organizations such as the Organization for Economic Cooperation and Development have proposed implementing changes to existing tax laws, including a proposed 15% global minimum tax. Any of these developments or changes in federal, state, or international tax laws or tax rulings could adversely affect our effective tax rate and our operating results. There can be no assurance that our effective tax rates, tax payments, or tax credits and incentives will not be adversely affected by these or other developments or changes in law.

***Governmental agencies may restrict access to platforms, our website, mobile applications or the internet generally, which could lead to the loss or slower growth of our user base.***

Governmental agencies in any of the countries in which we, our users, developers, or creators are located from time to time seek to and could seek to block access to impose restrictions on or require a license for our Platform, our website, operating system platforms, application stores or the internet generally for a number of reasons, including data security, privacy, data protection, confidentiality, or regulatory concerns which may include, among other things, governmental restrictions on certain content in a particular country, requirements to establish a local presence in a particular jurisdiction, and a requirement that user information be stored on servers in a country within which we operate. For example, China has recently limited that amount of time users under the age of 18 can spend on gaming platforms. Additionally, the publishing license granted to Tencent in December 2020 from the National Press and Publication Administration of the Chinese government could be withdrawn, which could significantly impair or eliminate the ability to publish and operate Luobulesi in China. Governmental agencies could issue fines or penalties if there are instances where we are found not to have been in compliance with regulations in any of these areas. Users generally need to access the internet, including in geographically diverse areas, and also mobile platforms such as the Apple App Store and the Google Play Store, to engage with experiences on our Platform. If governmental or other entities block, limit or otherwise restrict developers, creators, and users from accessing our Platform, or users from engaging with experiences on our Platform, we may need to take on more onerous obligations, limit the functionality of our Platform, and/or establish certain local entities, each of which could adversely affect our results of operations or subject us to additional fines and penalties.

***Because we store, process, and use data, some of which contains personal information, we are subject to complex and evolving federal, state, and international laws and regulations regarding privacy, data security, data protection, content, and other matters. Many of these laws and regulations are subject to change and uncertain interpretation, and could result in investigations, claims, changes to our business practices, increased cost of operations, and declines in user growth, retention, or engagement, any of which could significantly harm our business.***

We are subject to a variety of laws and regulations in the U.S. and other countries that involve matters central to our business, including user privacy, data security, data protection, rights of publicity, content, intellectual property, distribution, electronic contracts and other communications, competition, protection of minors, consumer protection, taxation, and online-payment services. The regulatory frameworks for privacy, data security, data protection, and data transfers worldwide are rapidly evolving and are likely to remain uncertain for the foreseeable future.

Certain privacy, biometrics, data security, and data protection laws and regulations, have placed and will continue to place significant privacy, data protection, and data security obligations on organizations such as ours and may require us to continue to change our policies and procedures. For example, the GDPR, which came into force in May 2018, imposed more stringent data protection requirements regarding EU personal data, and its provisions include increasing the maximum level of fines that EU regulators may impose for the most serious breaches of noncompliance of €20 million or 4% of annual global revenues of the previous year, whichever is greater. Such fines would be in addition to (i) the rights of individuals to sue for damages in respect of any data privacy breach which causes them to suffer harm, (ii) the right of individual member states to impose additional sanctions over and above the administrative fines specified in the GDPR, and (iii) the ability of supervisory authorities to impose orders requiring companies to modify their practices. If we are found not to be compliant with GDPR or similar requirements, we may be subject to significant fines and the risk of civil litigation. Further, even the perception of such noncompliance may result in reputational damage, and our business may be seriously harmed.

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In July 2020, the Court of Justice of the EU invalidated the EU-U.S. Privacy Shield framework, which provided companies with one mechanism to comply with data protection requirements when transferring personal data from the EU to the U.S. On September 8, 2020 the Federal Data Protection and Information Commissioner of Switzerland issued an opinion concluding that the Swiss-U.S. Privacy Shield did not provide an adequate level of protection for data transfers from Switzerland to the U.S. pursuant to Swiss data protection law. We rely on alternative data transfer mechanisms such as the EU Commission's Standard Contractual Clauses ("SCCs"), which also underwent some changes. On June 4, 2021, the European Commission published two sets of new SCCs, which began to take effect on June 27, 2021. The old SCCs could still be used for new data transfers during a three-month transition that ended on September 27, 2021. Existing data transfers that rely on the old SCCs could continue to be in effect until December 27, 2022, after which all data transfers must use the new SCCs. Further, data protection authorities may require measures to be put in place in addition to SSCs for transfers to countries outside of the European Economic Area ("EEA"), as well as Switzerland and the United Kingdom. Our third-party service providers may be affected similarly by these changes. In addition to other impacts, we may experience additional costs associated with increased compliance burdens following this decision, and we and our customers face the potential for regulators in the EEA, Switzerland, or the United Kingdom to apply different standards to the transfer of personal data from the EEA, Switzerland, or the United Kingdom to the U.S. and other non-EEA countries, and to block, or require ad hoc verification of measures taken with respect to, certain data flows from the EEA, Switzerland, and the United Kingdom to the U.S. and other non-EEA countries. We also may be required to engage in new contract negotiations with third parties that aid in processing data on our behalf, to the extent that any of our service providers, or consultants have been relying on invalidated or insufficient contractual protections for compliance with evolving interpretations of and guidance for cross-border data transfers pursuant to the GDPR. In such cases, we may not be able to find alternative service providers which could limit our ability to process personal data from the EEA, Switzerland, or the United Kingdom and increase our costs.

Brexit has created uncertainty with regard to the regulation of data protection in the United Kingdom. The United Kingdom maintains the Data Protection Act of 2018 and the UK GDPR, which collectively implement and complement the GDPR and provide for penalties for noncompliance of up to the greater of £17.5 million or four percent of worldwide revenues, uncertainty remains regarding the future of data protection in the United Kingdom. On June 28, 2021, the European Commission announced a decision of "adequacy" concluding that the United Kingdom ensures an equivalent level of data protection to the GDPR, which provides some relief regarding the legality of continued personal data flows from the EEA to the U.K. Such adequacy decision must, however, be renewed after four years and may be modified or revoked in the interim. We cannot fully predict how the Data Protection Act, the UK GDPR and other United Kingdom data protection laws or regulations may develop in the medium to longer term, nor the effects of divergent laws and guidance regarding how data transfers to and from the United Kingdom will be regulated. We continue to monitor and review the impact of any resulting changes to EU, United Kingdom or Swiss law or guidance that could affect our operations. For example, we are monitoring potential developments with the SCCs and similar clauses for the United Kingdom and Switzerland. We are also evaluating the UK's AADC, which focuses on online safety and protection of children's privacy online. The AADC became effective September 2, 2021 and noncompliance with the AADC may result in audits or other proceedings by the United Kingdom's Information Commissioner Office ("ICO"), the regulatory body set up to uphold information rights in the United Kingdom, and other regulators in the EEA or Switzerland, as noncompliance with the AADC may indicate noncompliance with applicable data protection law. In addition, we are monitoring developments with the DSA, which came into force on November 16, 2022 and will become fully applicable on February 17, 2024. The DSA imposes new content moderation obligations, notice and transparency obligations, advertising restrictions and other requirements on digital platforms to protect consumers and their rights online. Noncompliance with the DSA could result in fines of up to 6% of annual global revenues, which are in addition to the ability of civil society organizations and NGOs to lodge class action lawsuits. We may incur liabilities, expenses, costs, and other operational losses under the GDPR and laws and regulations of applicable EU Member States and the United Kingdom relating to privacy, data security and data protection in connection with any measures we take to comply with them.

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Other jurisdictions have adopted laws and regulations addressing privacy, data protection, and data security, many of which share similarities with the GDPR. For example, Law no. 13.709/2018 of Brazil, the Lei Geral de Proteção de Dados Pessoais or LGPD, entered into effect on September 18, 2020, authorizing a private right of action for violations. Penalties may include fines of up to 2% of the organization's revenue in Brazil in the previous year or 50M reais (approximately \$9.5 million U.S. dollars). The LGPD applies to businesses (both inside and outside Brazil) that process the personal data of users who are located in Brazil. The LGPD provides users with the similar rights as the GDPR regarding their data. A Brazilian Data Protection Authority, Brazilian National Data Protection Authority (Autoridade Nacional de Proteção de Dados) has been established to provide rules and guidance on how to interpret and implement the LGPD's requirements, including regarding notice of processing, data transfer requirements, and other compliance obligations, such as security measures, recordkeeping, training, and governance. Additionally, the Personal Information Protection Law, or PIPL of the People's Republic of China ("PRC"), was adopted on August 20, 2021, and went into effect on November 1, 2021. The PIPL shares similarities with the GDPR, including extraterritorial application, data minimization, data localization, and purpose limitation requirements, and obligations to provide certain notices and rights to citizens of the PRC. The PIPL allows for fines of up to 50 million renminbi or 5% of a covered company's revenue in the prior year. Our approach with respect to the LGPD and PIPL may be subject to further evaluation and change, our compliance measures may not be fully adequate and may require modification, we may expend significant time and cost in developing and maintaining a privacy governance program, data transfer or localization mechanisms, or other processes or measures to comply with the LGPD, the PIPL, and any implementing regulations or guidance under these regimes, and we may potentially face claims, litigation, investigations, or other proceedings or liability regarding the LGPD or PIPL and may incur liabilities, expenses, costs, and other operational losses under the LGPD and PIPL and any measures we take to comply with them.

In addition, the CCPA, which established a new privacy framework for covered businesses such as ours, went into effect in January 2020, requiring us to modify our data processing practices and policies and incur compliance related costs and expenses. The CCPA provides for civil penalties for violations, as well as a private right of action for data breaches, which may increase the likelihood and cost of data breach litigation. Additionally, the California Privacy Rights Act ("CPRA"), was approved in November 2020. The CPRA significantly modifies the CCPA, potentially resulting in further uncertainty and requiring us to incur additional costs and expenses in an effort to comply. The CPRA is effective as of January 1, 2023 and, among other things, gives California residents the ability to limit the use of their sensitive information, provides for penalties for CPRA violations concerning California residents under the age of 16, and establishes a new agency to implement and enforce the law. California also has enacted the ADCA, which will take effect on July 1, 2024. The ADCA implements into law certain principles taken from the AADC, among other things, and imposes substantial new obligations upon companies that offer online services, products, or features "likely to be accessed" by children, defined under the ADCA as anyone under 18 years of age. Further, the CCPA has prompted similar legislative developments in other states in the U.S., such as Virginia, which in March 2021 enacted a Consumer Data Protection Act that is effective as of January 1, 2023, Colorado, which in June 2021 enacted a Colorado Privacy Act that will go into effect July 1, 2023, Utah, which in March 2022 enacted a Utah Consumer Privacy Act that will go into effect December 31, 2023, and Connecticut, which in May 2022 enacted the Act Concerning Personal Data Privacy and Online Monitoring that will go into effect on December 31, 2023. These developments create the potential for a patchwork of overlapping but different state laws. Some countries also are considering or have passed legislation requiring local storage and processing of data, or similar requirements, which could increase the cost and complexity of operating our products and services and other aspects of our business. The potential effects of new and evolving legislation relating to privacy, data security, and data protection are far-reaching, create the potential for a patchwork of overlapping but different laws, and may require us to modify practices and policies, incur substantial costs and expenses in an effort to comply, or restrict our operations.

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We believe we take reasonable efforts to comply with all applicable laws, policies, legal obligations and certain industry codes of conduct relating to privacy, data security, and data protection. However, it is possible that the obligations imposed on us by applicable privacy, data security, and data protection laws and regulations, or industry codes of conduct or other actual or asserted obligations relating to privacy, data security, or data protection, may be interpreted and applied in a manner that is inconsistent from one jurisdiction to another and may conflict with other rules or our practices in other jurisdictions. Additionally, due to the nature of our service, we are unable to maintain complete control over data security or the implementation of measures that reduce the risk of a data security incident. For example, our customers may accidentally disclose their passwords or store them on a mobile device that is "SIM swapped," lost or stolen, creating the perception that our systems are not secure against third-party access. Any failure or perceived failure by us to comply with our privacy policies, our obligations to users or other third parties relating to privacy, data security or data protection, or our other policies or obligations relating to privacy, data security or data protection, or any actual or perceived compromise of security, including any such compromise that results in the unauthorized release or transfer of personal information or other user, developer or creator data, may result in governmental investigations and enforcement actions, litigation, claims or public statements against us by consumer advocacy groups or others and could cause our developers, creators, and users to lose trust in us, any or all of which could have an adverse effect on our business, financial condition or results of operations.

***United States or international rules that permit ISPs to limit internet data consumption by users, including unreasonable discrimination in the provision of broadband internet access services, could harm our business.***

The current legislative and regulatory landscape regarding the regulation of the Internet and, in particular, Internet neutrality, in the United States is subject to uncertainty. In January 2018, the Federal Communications Commission, or FCC, released an order that repealed the "open internet rules," often known as "net neutrality," which prohibit mobile providers in the U.S. from impeding access to most content, or otherwise unfairly discriminating against content providers like us and also prohibit mobile providers from entering into arrangements with specific content providers for faster or better access over their data networks. The FCC order repealing the open internet rules went into effect in June 2018 and was largely upheld by the District of Columbia Court of Appeals in *Mozilla Corp. v. Federal Communications Commission*. In response to this decision California and a number of states implemented their own net neutrality rules, some of which largely mirrored the repealed federal regulations. Further, in July 2021, President Biden signed an Executive Order on Promoting Competition in the American Economy, which directed the FCC to reinstate through appropriate rulemaking net neutrality rules. The FCC has not yet moved to implement this Executive Order. We cannot predict the outcome of any litigation or whether the FCC order or state initiatives regulating providers will be modified, overturned, or vacated by legal action, federal legislation (the "FCC"), or the degree to which this repeal would adversely affect our business, if at all. Similarly, the EU requires equal access to internet content, but as part of its Digital Single Market initiative, the EU may impose network security and disability access requirements, which could increase our costs. If the FCC's repeal of the open internet rules is maintained, state initiatives are modified, overturned, or vacated, or the EU modifies its open internet rules, mobile and internet providers may be able to limit our users' ability to access our Platform or make our Platform a less attractive alternative to our competitors' applications. Were that to happen, our ability to retain existing users or attract new users may be impaired, or costs could increase, and our business would be significantly harmed.

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***We are subject to laws and regulations worldwide, many of which are unsettled and still developing which could increase our costs or adversely affect our business.***

We are subject to a variety of laws in the U.S. and abroad that affect our business. As a global Platform with users in over 180 countries, we are subject to a myriad of regulations and laws regarding consumer protection, including the use of prepaid cards, subscriptions, advertising, electronic marketing, protection of minors, privacy, biometrics, data security, data protection and data localization requirements, artificial intelligence, online services, online gaming, anti-competition, freedom of speech, labor, real estate, taxation, escheatment, intellectual property ownership and infringement, tax, export and national security, tariffs, anti-corruption and telecommunications, all of which are continuously evolving and developing. The scope and interpretation of the laws that are or may be applicable to us, which in some cases can be enforced by private parties in addition to government entities, are often uncertain and may be conflicting, particularly laws outside the U.S., and compliance with laws, regulations and similar requirements may be burdensome and expensive. Laws and regulations may be inconsistent from jurisdiction to jurisdiction, which may increase the cost of compliance and doing business and expose us to possible litigation, penalties or fines. Any such costs, which may rise in the future as a result of changes in these laws and regulations or in their interpretation, could make our Platform less attractive to our users, developers, or creators or cause us to change or limit our ability to sell our Platform. We have policies and procedures designed to ensure compliance with applicable laws and regulations, but we cannot assure you that we will not experience violations of such laws and regulations or our policies and procedures.

We are potentially subject to a number of foreign and domestic laws and regulations that affect the offering of certain types of content, such as that which depicts violence, many of which are ambiguous, still evolving and could be interpreted in ways that could harm our business or expose us to liability. Foreign governments, may censor our Platform in their countries, restrict access to our Platform from their countries entirely, impose other restrictions that may affect their citizens' ability to access our Platform for an extended period of time or even indefinitely, require data localization, or impose other laws or regulations that we cannot comply with, would be difficult for us to comply with, or would require us to rebuild our Platform or the infrastructure for our Platform. Numerous countries, including Germany, have regulations relating to this area and they may impose significant fines for failure to comply with certain content removal and disclosure obligations. Other countries, including Singapore, India, Turkey, Mexico, Australia, France, and the United Kingdom, have implemented or are considering similar legislation imposing penalties for failure to remove certain types of content. On the other hand, some users, developers, and creators may choose not to use our Platform if we actively police content. Further, new content related regulations, including the DSA, which came into force on November 16, 2022 and will become fully applicable on February 17, 2024, may increase our compliance cost.

In addition, there are ongoing academic, political, and regulatory discussions in the U.S., Canada, Europe, United Kingdom, Australia, and other jurisdictions regarding whether certain mechanisms that may be included in the experiences on our Platform, such as features commonly referred to as "loot boxes," and certain genres of experiences, such as social casino, that may reward gambling, should be subject to a higher level or different type of regulation than other genres of experiences to protect consumers, in particular minors and persons susceptible to addiction, and, if so, what such regulation should include. In July 2022, Spanish gambling regulators introduced a bill aimed at prohibiting minors from accessing "loot boxes", which if passed, may require us to limit the availability of certain features in Spain. Similar limitations will likely be imposed in the United Kingdom. Other countries may adopt similar rules, which may have a negative impact on our revenue. In addition, it is possible that similar lawsuits could be filed against us in Brazil or possibly other jurisdictions. Also, new regulation by the U.S. federal government and its agencies, such as the FTC, state agencies or foreign jurisdictions, which may vary significantly, could require that certain content in the experiences on our Platform be modified or removed, increase the costs of operating or monitoring the experiences on our Platform, impact user engagement and thus the functionality and effectiveness of our Platform or otherwise harm our business performance. It is difficult to predict how existing or new laws may be applied. If we become liable, directly or indirectly, under these laws or regulations, we could be harmed, and we may be forced to implement new measures to reduce our exposure to this liability. This may require us to expend substantial resources or to modify our Platform, which would harm our business, financial condition and results of operations. In addition, the increased attention focused upon liability issues as a result of lawsuits and legislative proposals could harm our reputation or otherwise impact the growth of our business. Any costs incurred as a result of this potential liability could harm our business, financial condition, or results of operations.

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It is also possible that a number of laws and regulations may be adopted or construed to apply to us or our users or our developers in the U.S. and elsewhere that could restrict the online and mobile industries, including developer, creator, and user privacy, data protection, data security, advertising, user acquisition practices, taxation, content suitability, copyright, distribution and antitrust, and our Platform, experiences or components thereof may be deemed or perceived illegal or unfair practices. Furthermore, the growth and development of electronic commerce and virtual items may prompt calls for more stringent consumer protection laws that may impose additional burdens on companies such as us and developers, creators, and users conducting business through the internet and mobile devices. We anticipate that scrutiny and regulation of our industry will increase and we will be required to devote legal and other resources to addressing such regulation. For example, existing laws or new laws regarding the marketing of in-app purchases, labeling of our free experiences or regulation of currency, banking institutions, unclaimed property, or money transmission may be interpreted to cover experiences made with our technologies and the revenue and bookings that we receive from our Platform. If that were to occur, we may be required to maintain certain records and seek licenses, authorizations or approvals from relevant regulators, the granting of which may be dependent on us meeting certain capital, operational, and other requirements and we may be subject to additional regulation and oversight and other operational requirements, all of which could significantly increase our operating costs. Changes in current laws or regulations or the imposition of new laws and regulations in the U.S. or elsewhere, or any withdrawal by us from certain countries because of such actions, would adversely affect our DAUs and other operating metrics, including by giving our competitors an opportunity to penetrate geographic markets that we cannot access. As a result, our user growth, retention, and engagement may be significantly harmed.

***Legal and regulatory restrictions on virtual currencies like Robux may adversely affect our Platform, experiences, and virtual items on our Platform, which may negatively impact our revenue, bookings, business, and reputation.***

Users can purchase a license to use Robux to enrich their experience in various ways on our Platform. For example, Robux are often used to obtain virtual clothes and accessories for users' avatars. The regulations that apply to virtual currencies in the jurisdictions in which we operate are subject to change. It is possible that regulators in the U.S. or elsewhere may take regulatory actions in the future that restrict our ability to license Robux, allow users to acquire or use other digital goods available on our platform, or that prohibit developers or creators on our Platform from earning Robux. We also make prepaid gift cards available for sale internationally that may be used to redeem Robux, and regulators may impose restrictions or bans on the sale of such prepaid gift cards. Any such restrictions or prohibitions may adversely affect our Platform, business, revenue, and bookings. In the United States, the SEC, its staff, and similar state regulators have deemed certain virtual currencies to be securities subject to regulation under the federal and state securities laws. While we do not consider Robux to be a security, if Robux were subject to the federal or state securities laws of the U.S., we may be required to redesign our Platform considerably, in a manner that would be disruptive to operations and costly to implement, which may threaten the viability of the Platform. We may also be subject to enforcement or other regulatory actions by federal or state regulators, as well as private litigation, which could be costly to resolve.

The increased use of interactive entertainment offerings like ours by consumers, including younger consumers, may prompt calls for more stringent consumer protection laws and regulations throughout the world that may impose additional burdens on companies such as ours making virtual currencies like Robux available for sale. Any such changes would require us to devote legal and other resources to address such regulation. For example, some existing laws regarding the regulation of currency, money transmitters and other financial institutions, and unclaimed property have been interpreted to cover virtual currencies, like Robux.

Although we have structured Robux, as well as our sales of other digital goods and prepaid cards on our Platform, with applicable laws and regulations in mind, including applicable laws relating to money laundering and money transmission services, and believe we are in compliance with all applicable laws, it is possible that a relevant regulator may disagree, which could expose us to penalties. If a relevant regulator disagreed with our analysis of and compliance with applicable laws, we may be required to seek licenses, authorizations, or approvals from those regulators, which may be dependent on us meeting certain capital and other requirements and may subject us to additional regulation and oversight, all of which could significantly increase our operating costs.

Changes in current laws or regulations or the imposition of new laws and regulations in the U.S. or elsewhere that prohibit us from making Robux available on our Platform would require us to make significant changes to our Platform, which would materially impair our business, financial condition, and operating results.

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***We are subject to the Foreign Corrupt Practices Act and similar anti-corruption and anti-bribery laws, and anti-money laundering laws, and non-compliance with such laws can subject us to criminal or civil liability and harm our business, financial condition and results of operations.***

We are subject to the Foreign Corrupt Practices Act, U.S. domestic bribery laws, the UK Bribery Act and other anti-corruption and anti-bribery laws, and anti-money laundering laws in the countries in which we conduct activities. Anti-corruption and anti-bribery laws have been enforced aggressively in recent years and are interpreted broadly to generally prohibit companies, their employees, agents, representatives, business partners and third-party intermediaries from authorizing, offering or providing, directly or indirectly, improper payments or benefits to recipients in the public or private sector in order to influence official action, direct business to any person, gain any improper advantage, or obtain or retain business. As we increase our international business, our risks under these laws may increase.

With regard to our international business, we have engaged with business partners and third-party intermediaries to market our solutions and obtain necessary permits, licenses and other regulatory approvals. In addition, we or our employees, agents, representatives, business partners or third-party intermediaries have had direct or indirect interactions with officials and employees of government agencies or state-owned or affiliated entities. We can be held liable for the corrupt or other illegal activities of our employees, agents, representatives, business partners or third-party intermediaries, even if we do not authorize such activities. As we increase our international sales and business, our risks under these laws may increase.

These laws also require that we keep accurate books and records and maintain internal controls and compliance procedures designed to prevent any such actions. While we have policies, training and procedures to address compliance with such laws, we cannot assure you that none of our employees, agents, representatives, business partners or third-party intermediaries will take actions in violation of our policies and applicable law, for which we may be ultimately held responsible.

Detecting, investigating, and resolving actual or alleged violations of anti-corruption and anti-bribery laws and anti-money laundering laws can require a significant diversion of time, resources, and attention from senior management, as well as significant defense costs and other professional fees. In addition, noncompliance with anti-corruption, and anti-bribery, or anti-money laundering laws could subject us to whistleblower complaints, investigations, sanctions, settlements, prosecution, enforcement actions, fines, damages, other civil or criminal penalties or injunctions against us, our officers, or our employees, disgorgement of profits, suspension or debarment from contracting with the U.S. government or other persons, reputational harm, adverse media coverage, and other collateral consequences. If any subpoenas or investigations are launched, or governmental or other sanctions are imposed, or if we do not prevail in any possible civil or criminal proceeding, our reputation, business, financial condition, prospects and results of operations and the price of our Class A common stock could be harmed. Responding to any investigation or action will likely result in a materially significant diversion of management's attention and resources and significant defense costs and other professional fees.

***We may incur liability as a result of content published using our Platform or as a result of claims related to content generated by our developers, creators, and users, including copyright infringement, and legislation regulating content on our Platform may require us to change our Platform or business practices.***

Our success relies in part on the ability of developers and creators to drive engagement with content that is challenging, engaging, fun, interesting, and novel. Developers and creators are responsible for clearing the rights to all of the content they upload to our service, but some developers or creators may upload content that infringes the terms and rights of third parties in violation of our Terms of Use. We rely upon legal protections in various jurisdictions to protect us from claims of monetary damages for content that is uploaded to and stored on our system at the direction of our users but those protections may change or disappear over time, increasing our exposure for claims of copyright or other intellectual property infringement. If we should lose or fail to qualify for statutory or other legal protections that immunize us from monetary damages for intellectual property infringement, the damages could be significant and have a material impact on our business. While we have implemented measures designed to limit our exposure to claims of intellectual property infringement, intellectual property owners may allege that we failed to take appropriate measures to prevent infringing activities on our systems, that we turned a blind eye to infringement, or that we facilitated, induced or contributed to infringement.

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Even though we are not required to monitor uploaded content for copyright infringement in the U.S., we have chosen to do so through the services of a third-party audio monitoring service. We now monitor all uploaded sound recordings to exclude recordings owned or controlled by the major record labels and any other record labels who provide their music to the third-party audio monitoring service. These record labels register certain of their content with our service provider. When audio is uploaded to our Platform, we check the service provider's system to exclude recordings owned or controlled by these record labels from being published on our Platform. If our monitoring proves ineffective or we cease to rely upon a third-party monitoring service to exclude certain content from our platform, our risk of liability may increase.

In the past, certain record companies and music publishers, either directly or through their authorized representatives, claimed that we are subject to liability for allegedly infringing content that was uploaded and may continue to exist on our Platform. We vigorously disputed such claims of infringement by such labels and publishers and reached settlements. However, we could be subject to additional claims in the future. An adverse judgment against us in any such lawsuit could require us to settle any claims for an undetermined amount which could have a material impact on our business, financial condition, or results of operations.

The EU enacted copyright laws such as the Copyright Directive that came into effect on June 6, 2019 that may require us to use best efforts in accordance with the high industry standards of professional diligence to exclude infringing content from our Platform that may be uploaded by our users. Member states of the EU had until June 7, 2021 to pass legislation to implement the Copyright Directive in their respective countries. To comply with this new law, we may have to devote significant time and resources to develop and execute on a plan to implement technologies to prevent infringing content from being uploaded to our Platform and, to the extent infringing content makes it onto our Platform, to expeditiously remove such content and implement measures to prevent re-uploads of such content. Although the EU law does not mandate monitoring, there may be no practical way for us to comply with the law's stringent new requirements (to the extent they may be applicable) without adopting some form of robust content identification systems. In addition, the monitoring and reporting obligations of the Digital Services Act may apply also with respect to copyright infringements that would fall outside the scope of the Copyright Directive.

We may also be required to enter into license agreements with various licensors, including record labels, music publishers, performing rights organizations, and collective management organizations, to obtain licenses that authorize the storage and use of content uploaded by our users. We may not be able to develop technological solutions to comply with these license agreements on economically reasonable terms and there is no guarantee that we will be able to enter into agreements with all relevant rights holders on terms that we deem reasonable. Compliance may therefore negatively impact our financial prospects.

## **Risks Related to Intellectual Property**

***Claims by others that we infringe their proprietary technology or other rights, the activities of our users or the content of the experiences on our Platform could subject us to liability and harm our business.***

We have been and may in the future become subject to intellectual property disputes, and may become subject to liability, costs, and awards of damages and/or injunctive relief as a result of these disputes. Our success depends, in part, on our ability to develop and commercialize our Platform without infringing, misappropriating or otherwise violating the intellectual property rights of third parties. However, there is no assurance that our technologies or Platform will not be found to infringe, misappropriate or otherwise violate the intellectual property rights of third parties. We also have agreements with third parties to manufacture and distribute merchandise based on user content on our Platform, and there is a possibility that such content could be found to be infringing. Lawsuits are time-consuming and expensive to resolve and they divert management's time and attention. Further, because of the substantial amount of discovery required in connection with intellectual property litigation, we risk compromising our confidential information during this type of litigation. Companies in the internet, technology, and gaming industries own large numbers of patents, copyrights, trademarks, domain names, and trade secrets and frequently enter into litigation based on allegations of infringement, misappropriation, or other violations of intellectual property or other rights. As we face increasing competition and gain a higher profile, the possibility of intellectual property rights and other claims against us grows. Our technologies may not be able to withstand any third-party claims against their use. In addition, many companies have the capability to dedicate substantially greater resources to enforce their intellectual property rights and to defend claims that may be brought against them.

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We have a number of issued patents. We have also filed a number of additional U.S. and foreign patent applications but these applications may not successfully result in issued patents. Any patent litigation against us may involve patent holding companies or other adverse patent owners that have no relevant product revenue, and therefore, our patents and patent applications may provide little or no deterrence as we would not be able to reach meaningful damages if we assert them against such entities or individuals. If a third party is able to obtain an injunction preventing us from accessing such third-party intellectual property rights, or if we cannot license or develop alternative technology for any infringing aspect of our business, we would be forced to limit or cease access to our Platform or cease business activities related to such intellectual property. In addition, we may need to settle litigation and disputes on terms that are unfavorable to us. We may be required to make substantial payments for legal fees, settlement fees, damages, royalties, license or other fees in connection with a claimant securing a judgment against us. Although we carry general liability insurance, our insurance may not cover potential claims of this type or may not be adequate to cover all liability that may be imposed. We cannot predict the outcome of lawsuits and cannot ensure that the results of any such actions will not have an adverse effect on our business, financial condition, or results of operations. Any intellectual property claim asserted against us, or for which we are required to provide indemnification, may require us to do one or more of the following:

- cease selling or using or recall products that incorporate the intellectual property rights that we allegedly infringe, misappropriate, or violate;
- make substantial payments for legal fees, settlement payments, or other costs or damages;
- obtain a license, which may not be available on reasonable terms or at all, to sell or use the relevant technology; or
- redesign or rebrand the allegedly infringing products to avoid infringement, misappropriation, or violation, which could be costly, time-consuming, or impossible.

Furthermore, certain federal statutes in the U.S. may apply to us with respect to various activities of our users, including the DMCA, which provides immunity from monetary damages for online service providers such as us for, among other things, infringing content uploaded to our Platform by our users provided we comply with certain statutory requirements, and Section 230 of the Communications Decency Act ("CDA"), which addresses blocking and screening of content on the internet and provides immunity to platforms that censor communications that they deem to be inappropriate. For example, we filter communications to eliminate speech we determine to be offensive based on our objective of creating a civil and safe place for all users. Bills have recently been proposed in Congress calling for a range of changes to Section 230 of the CDA which include a complete repudiation of the statute to modifications of it in such a way as to remove certain social media companies from its protection. If Section 230 of the CDA were so repealed or amended, we could potentially be subject to liability if we continue to censor speech, even if that speech were offensive to our users, or we could experience a decrease in user activity and revenues if we are unable to maintain a safe environment for our users if certain blocking and screening activities are prohibited by law. In addition, certain states have either passed or are debating laws that would create potential liability for moderating or removing certain user content. While we believe these laws are of dubious validity under the U.S. Constitution and in light of Section 230 of the CDA, they nevertheless present some risk to our content-moderation efforts going forward.

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While we rely on a variety of statutory and common-law frameworks and defenses, including those provided by the DMCA, the CDA, the fair-use doctrine in the U.S. and the E-Commerce Directive in the EU, differences between statutes, limitations on immunity, requirements to maintain immunity, and moderation efforts in the many jurisdictions in which we operate may affect our ability to rely on these frameworks and defenses, or create uncertainty regarding liability for information or content uploaded by developers, creators, or users or otherwise contributed by third parties to our Platform. As an example, Article 17 of the Directive on Copyright in the Digital Single Market was passed in the EU, which affords copyright owners some enforcement rights that may conflict with U.S. safe harbor protections afforded to us under the DMCA. Member states in the EU are in the process of determining how Article 17 will be implemented in their particular country. In addition, the EU's Digital Services Act entered into force on November 16, 2022, and will become fully applicable on February 17, 2024. The Digital Services Act imposes additional obligations as provided under the E-Commerce Directive and includes new content moderation obligations, notice and transparency obligations, advertising restrictions and other requirements on digital platforms to protect consumers and their rights online. In countries in Asia and Latin America, generally there are not similar statutes to the CDA or the Digital Services Act. The laws of countries in Asia and Latin America generally provide for direct liability if a platform is involved in creating such content or has actual knowledge of the content without taking action to take it down. Further, laws in some Asian countries also provide for primary or secondary liability, which can include criminal liability, if a platform failed to take sufficient steps to prevent such content from being uploaded. Although these and other similar legal provisions provide limited protections from liability for platforms like ours, if we are found not to be protected by the safe harbor provisions of the DMCA, CDA or other similar laws, or if we are deemed subject to laws in other countries that may not have the same protections or that may impose more onerous obligations on us, including Article 17, we may owe substantial damages and our brand, reputation, and financial results may be harmed.

Even if the claims do not result in litigation or are resolved in our favor, these claims, and the time and resources necessary to resolve them, could divert the resources of our management and harm our business and operating results. Moreover, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our Class A common stock. We expect that the occurrence of infringement claims is likely to grow as the market for our Platform grows. Accordingly, our exposure to damages resulting from infringement claims could increase, and this could further exhaust our financial and management resources.

***Indemnity provisions in various agreements potentially expose us to substantial liability for intellectual property infringement and other losses.***

Our agreements with third parties generally include indemnification provisions under which we agree to indemnify these third parties for losses suffered or incurred as a result of claims of intellectual property infringement, or other liabilities relating to or arising from our software, services, Platform or other contractual obligations. Large indemnity payments could harm our business, results of operations, and financial condition. Although we normally contractually limit our liability with respect to such indemnity obligations, those limitations may not be fully enforceable in all situations, and we may still incur substantial liability under those agreements. Any dispute with a third-party with respect to such obligations could have adverse effects on our relationship with such party and harm our business and results of operations.

***Failure to protect or enforce our intellectual property rights or the costs involved in such enforcement would harm our business.***

Our success depends to a significant degree on our ability to obtain, maintain, protect, and enforce our intellectual property rights, including our proprietary software technology, know-how, and our brand. We rely on a combination of trademarks, trade secret laws, patents, copyrights, service marks, contractual restrictions, and other intellectual property laws and confidentiality procedures to establish and protect our proprietary rights. However, the steps we take to obtain, maintain, protect, and enforce our intellectual property rights may be inadequate. We will not be able to protect our intellectual property rights if we are unable to enforce our rights or if we do not detect unauthorized use of our intellectual property rights. If we fail to protect our intellectual property rights adequately, or fail to continuously innovate and advance our technology, our competitors could gain access to our proprietary technology and develop and commercialize substantially identical products, services or technologies. In addition, defending our intellectual property rights might entail significant expense and may not ultimately be successful.

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Further, any patents, trademarks, or other intellectual property rights that we have or may obtain may be challenged or circumvented by others or invalidated or held unenforceable through administrative processes, including re-examination, inter partes review, interference and derivation proceedings and equivalent proceedings in foreign jurisdictions, such as opposition proceedings, or litigation. In addition, despite our pending patent applications, we cannot assure you that our patent applications will result in issued patents. Even if we continue to seek patent protection in the future, we may be unable to obtain or maintain patent protection for our technology. In addition, any patents issued from pending or future patent applications or licensed to us in the future may not provide us with competitive advantages, or may be successfully challenged by third parties. Furthermore, legal standards relating to the validity, enforceability, and scope of protection of intellectual property rights are uncertain. Despite our precautions, it may be possible for unauthorized third parties to copy our Platform and use information that we regard as proprietary to create products that compete with ours. Patent, trademark, copyright, and trade secret protection may not be available to us in every country in which our products are available. The value of our intellectual property could diminish if others assert rights in or ownership of our trademarks and other intellectual property rights, or trademarks that are similar to our trademarks. We may be unable to successfully resolve these types of conflicts to our satisfaction. In some cases, litigation or other actions may be necessary to protect or enforce our trademarks and other intellectual property rights. In addition, the laws of some foreign countries may not be as protective of intellectual property rights as those in the U.S., and mechanisms for enforcement of intellectual property rights may be inadequate. As we expand our global activities, our exposure to unauthorized copying and use of our Platform and proprietary information will likely increase. Moreover, policing unauthorized use of our technologies, trade secrets, and intellectual property may be difficult, expensive and time-consuming. Accordingly, despite our efforts, we may be unable to prevent third parties from infringing upon, misappropriating or otherwise violating our intellectual property rights.

We rely, in part, on trade secrets, proprietary know-how, and other confidential information to maintain our competitive position. While we enter into confidentiality and invention assignment agreements with our employees and consultants and enter into confidentiality agreements with other third parties, including suppliers and other partners, we cannot guarantee that we have entered into such agreements with each party that has or may have had access to our proprietary information, know-how and trade secrets or that has or may have developed intellectual property in connection with their engagement with us. Moreover, we cannot assure you that these agreements will be effective in controlling access to, distribution, use, misuse, misappropriation, reverse engineering, or disclosure of our proprietary information, know-how, and trade secrets. Further, these agreements may not prevent our competitors from independently developing technologies that are substantially equivalent or superior to our Platform. These agreements may be breached, and we may not be able to detect any such breach and may not have adequate remedies for any such breach even if we know about it.

***We use open source software on our Platform and in connection with certain experiences on our Platform, which may pose particular intellectual property risks to and could have a negative impact on our business.***

We have in the past and may in the future continue to use open source software in our codebase and our Platform. Some open source software licenses require users who make available open source software as part of their proprietary software to publicly disclose all or part of the source code to such proprietary software or make available any derivative works of such software free of charge, under open source licensing terms. The terms of various open source licenses have not been interpreted by courts, and there is a risk that such licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our use of the open source software. Enforcement activity for open source licenses can also be unpredictable. Were it determined that our use was not in compliance with a particular license, we may be required to release our proprietary source code, defend claims, pay damages for breach of contract or copyright infringement, grant licenses to our patents, re-engineer our games or products, discontinue distribution in the event re-engineering cannot be accomplished on a timely basis, or take other remedial action that may divert resources away from our game development efforts, any of which could negatively impact our business. Open source compliance problems can also result in damage to reputation and challenges in recruitment or retention of engineering personnel.

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## Risks Related to Ownership of our Class A Common Stock

### ***The public trading price of our Class A common stock is volatile, and could decline regardless of our operating performance.***

To date, the public trading price of our Class A common stock has been volatile, similar to other newly public companies that have historically experienced highly volatile trading prices. The public trading price of our Class A common stock may fluctuate in response to various factors, including those listed in this Annual Report on Form 10-K, some of which are beyond our control. These fluctuations could cause you to lose all or part of your investment in our Class A common stock since you might be unable to sell your shares at or above the price you paid. Factors that could cause fluctuations in the public trading price of our Class A common stock include the following:

- the number of shares of our Class A common stock made available for trading;
  - sales or expectations with respect to sales of shares of our Class A common stock by holders of our Class A common stock;
  - price and volume fluctuations in the overall stock market from time to time;
  - volatility in the trading prices and trading volumes of technology stocks;
  - changes in operating performance and stock market valuations of other technology companies generally, or those in our industry in particular;
  - failure of securities analysts to maintain coverage of us, changes in financial estimates by securities analysts who follow us or our failure to meet these estimates or the expectations of investors;
  - any plans we may have to provide or not provide disclosure about certain key metrics, financial guidance or projections, which may increase the probability that our financial results are perceived as not in line with analysts' expectations;
  - if we do provide disclosure about certain key metrics, financial guidance or projections, any changes with respect to timing or our failure to meet those projections;
  - announcements by us or our competitors of new services or platform features;
  - the public's reaction to our press releases, other public announcements and filings with the SEC;
  - rumors and market speculation involving us or other companies in our industry;
  - actual or anticipated changes in our results of operations or fluctuations in our results of operations;
  - actual or anticipated developments in our business, our competitors' businesses or the competitive landscape generally;
  - litigation involving us, our industry or both, or investigations by regulators into our operations or those of our competitors;
  - actual or perceived privacy or security breaches or other incidents;
  - developments or disputes concerning our intellectual property or other proprietary rights;
  - announced or completed acquisitions of businesses, services or technologies by us or our competitors;
  - new laws or regulations, public expectations regarding new laws or regulations or new interpretations of existing laws or regulations applicable to our business;
  - changes in accounting standards, policies, guidelines, interpretations, or principles;
  - any significant change in our management or other key personnel;
  - other events or factors, including those resulting from war, such as Russia's invasion of Ukraine, incidents of terrorism, pandemics, or wildfires, earthquakes or severe weather and power outages or responses to these events; and
  - general economic conditions and slow or negative growth of our markets.
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In addition, stock markets, and the market for technology companies in particular, have experienced price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. Stock prices of many companies, including technology companies, have fluctuated in a manner often unrelated to the operating performance of those companies. In the past, following periods of volatility in the overall market and the market price of a particular company's securities, securities class action litigation has often been instituted against these companies. This litigation, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources.

***The dual class stock structure of our common stock has the effect of concentrating voting control in our Founder, President, CEO and Chair of our Board of Directors, David Baszucki, which limits or precludes your ability to influence corporate matters, including the election of directors and the approval of any change of control transaction.***

Our Class B common stock has 20 votes per share and our Class A common stock has one vote per share. Our Founder, President, CEO and Chair of our Board of Directors, and largest stockholder, David Baszucki and his affiliates, beneficially own 100% of our outstanding Class B common stock, together as a single class, representing a substantial percentage of the voting power of our capital stock, which voting power may increase over time as Mr. Baszucki exercises or vests in his equity awards. Mr. Baszucki and his affiliates could exert substantial influence over matters requiring approval by our stockholders. This concentration of ownership may limit or preclude your ability to influence corporate matters for the foreseeable future, including the election of directors, amendments of our organizational documents, and any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction requiring stockholder approval. In addition, this may prevent or discourage unsolicited acquisition proposals or offers for our capital stock that you may believe are in your best interest as one of our stockholders. We believe we are eligible for, but do not intend to take advantage of, the "controlled company" exemption to the corporate governance rules for NYSE-listed companies. The dual class stock structure of our common stock which permits Mr. Baszucki and his affiliates to exert this influence will remain in place until the earlier of (i) the date that is specified by the affirmative vote of the holders of two-thirds of the then-outstanding shares of Class B common stock, (ii) the date on which less than 30% of the Class B common stock that was outstanding on March 2, 2021, (iii) March 10, 2036, (iv) nine months after the death or permanent disability of Mr. Baszucki, and (v) nine months after the date that Mr. Baszucki no longer serves as our CEO, or as a member of our Board of Directors. Future transfers of Class B common stock will generally result in those shares converting to Class A common stock, subject to limited exceptions.

***We cannot predict the effect our dual class structure may have on the trading price of our Class A common stock.***

We cannot predict whether our dual class structure will result in a lower or more volatile trading price of our Class A common stock, in adverse publicity, or other adverse consequences. For example, certain index providers, such as S&P Dow Jones, exclude companies with multiple classes of common stock from being added to certain stock indices, including the S&P 500. As a result, the dual class structure of our common stock may trigger actions or publications by stockholder advisory firms or institutional investors critical of our corporate governance practices or capital structure, or prevent the inclusion of our Class A common stock in certain indices and, as a result, large institutional investors, mutual funds, exchange-traded funds, and other investment vehicles that attempt to passively track those indices may not invest in our Class A common stock. Any exclusion from certain indices could result in a less active trading market for our Class A common stock. As a result, the trading price of our Class A common stock could be adversely affected. Delaware law and provisions in our amended and restated certificate of incorporation and amended and restated bylaws could make a merger, tender offer or proxy contest difficult, thereby depressing the market price of our Class A common stock.

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***Delaware law and provisions in our amended and restated certificate of incorporation and amended and restated bylaws could make a merger, tender offer or proxy contest difficult, thereby depressing the market price of our Class A common stock.***

Our status as a Delaware corporation and the anti-takeover provisions of the Delaware General Corporation Law may discourage, delay or prevent a change in control by prohibiting us from engaging in a business combination with an interested stockholder for a period of three years after the date of the transaction in which the person became an interested stockholder, even if a change of control would be beneficial to our existing stockholders. In addition, our amended and restated certificate of incorporation and amended and restated bylaws will contain provisions that may make the acquisition of our company more difficult, including the following:

- any amendments to our amended and restated certificate of incorporation or our amended and restated bylaws will require the approval of at least 66 $\frac{2}{3}$ % of our then-outstanding voting power;
- our Board of Directors is classified into three classes of directors with staggered three-year terms and stockholders will only be able to remove directors from office for cause;
- upon the conversion of our Class A common stock and Class B common stock into a single class of common stock, our stockholders will only be able to take action at a meeting of stockholders and will not be able to take action by written consent for any matter;
- our amended and restated certificate of incorporation does not provide for cumulative voting;
- vacancies on our Board of Directors will be able to be filled only by our Board of Directors and not by stockholders;
- a special meeting of our stockholders may only be called by the chairperson of our Board of Directors, our CEO, our President or a majority of our Board of Directors;
- certain litigation against us can only be brought in Delaware;
- our amended and restated certificate of incorporation authorizes 100 million shares of undesignated preferred stock, the terms of which may be established and shares of which may be issued without further action by our stockholders; and
- advance notice procedures apply for stockholders to nominate candidates for election as directors or to bring matters before an annual meeting of stockholders.

These provisions, alone or together, could discourage, delay or prevent a transaction involving a change in control of our company. These provisions could also discourage proxy contests and make it more difficult for stockholders to elect directors of their choosing and to cause us to take other corporate actions they desire, any of which, under certain circumstances, could limit the opportunity for our stockholders to receive a premium for their shares of our Class A common stock, and could also affect the price that some investors are willing to pay for our Class A common stock.

***Our amended and restated bylaws provide that the Court of Chancery of the State of Delaware and the federal district courts of the United States will be the exclusive forums for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.***

Our amended and restated bylaws provide that the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, another State court in Delaware or the federal district court for the District of Delaware) is the exclusive forum for the following (except for any claim as to which such court determines that there is an indispensable party not subject to the jurisdiction of such court (and the indispensable party does not consent to the personal jurisdiction of such court within ten days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than such court or for which such court does not have subject matter jurisdiction):

- any derivative action or proceeding brought on behalf of us;
  - any action asserting a claim of breach of a fiduciary duty;
  - any action asserting a claim against us arising under the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws (as either may be amended from time to time); and
  - any action asserting a claim against us that is governed by the internal affairs doctrine.
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This provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act, or any other claim for which the U.S. federal courts have exclusive jurisdiction.

Our amended and restated bylaws further provide that the federal district courts of the U.S. will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act.

These exclusive-forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage lawsuits against us and our directors, officers and other employees. Any person or entity purchasing or otherwise acquiring any interest in any of our securities shall be deemed to have notice of and consented to these provisions. There is uncertainty as to whether a court would enforce such provisions, and the enforceability of similar choice of forum provisions in other companies' charter documents has been challenged in legal proceedings. We also note that stockholders cannot waive compliance (or consent to noncompliance) with the federal securities laws and the rules and regulations thereunder. It is possible that a court could find these types of provisions to be inapplicable or unenforceable, and if a court were to find either exclusive-forum provision in our amended and restated bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving the dispute in other jurisdictions, which could significantly harm our business.

***If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about us, our business or our market, or if they change their recommendation regarding our Class A common stock adversely, the market price and trading volume of our Class A common stock could decline.***

The market price and trading volume for our Class A common stock will depend in part on the research and reports that securities or industry analysts publish about us, our business, our market or our competitors. The analysts' estimates are based upon their own opinions and are often different from our estimates or expectations. If any of the analysts who cover us change their recommendation regarding our Class A common stock adversely, provide more favorable relative recommendations about our competitors or publish inaccurate or unfavorable research about our business, the price of our Class A common stock would likely decline. If few securities analysts commence coverage of us, or if one or more of these analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets and demand for our securities could decrease, which could cause the price and trading volume of our Class A common stock to decline.

***Our Class A common stock price may be volatile due to third-party data regarding our experiences.***

In addition, third parties regularly publish data about us and other mobile, gaming, and social platform companies with respect to DAUs, revenue, bookings, top experience or game charts, hours engaged and other information concerning social game application usage. These metrics are proprietary to the provider, and in many cases do not accurately reflect the actual levels of bookings, revenue or usage of our experiences across all platforms. There is a possibility that third parties could change their methodologies for calculating these metrics in the future. To the extent that securities analysts or investors base their views of our business or prospects on such third-party data, the price of our Class A common stock may be volatile and may not reflect the performance of our business.

***Additional issuances of our stock could result in significant dilution to our stockholders.***

Additional issuances of our stock will result in dilution to existing holders of our capital stock. Also, to the extent outstanding additional shares subject to options and warrants to purchase our capital stock are authorized and exercised, there will be further dilution. The amount of dilution could be substantial depending upon the size of the issuance or exercise. As part of our business strategy, we may acquire or make investments in companies, products or technologies and issue equity securities to pay for any such acquisition or investment. Any such issuances of additional capital stock may cause stockholders to experience significant dilution of their ownership interests and the per share value of our Class A common stock to decline.

***We do not expect to pay dividends in the foreseeable future.***

We have never declared nor paid cash dividends on our capital stock. We currently intend to retain any future earnings to finance the operation and expansion of our business, and we do not anticipate declaring or paying any dividends to holders of our capital stock in the foreseeable future. Consequently, you may need to rely on sales of our Class A common stock after price appreciation, which may never occur, as the only way to realize any future gains on your investment.

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## **Risks Related to the Notes and our Indebtedness**

### ***We may not be able to generate sufficient cash to service our debt and other obligations, including our obligations under the 2030 Notes.***

Our ability to make payments on our indebtedness, including the 2030 Notes, and our other obligations will depend on our financial and operating performance, which is subject to prevailing economic and competitive conditions and to certain financial, business and other factors beyond our control. We cannot assure you that we will maintain a level of cash flows from operating activities sufficient to permit us to pay the principal, premium, if any, and interest on our indebtedness, including the 2030 Notes, and other obligations.

If we are unable to service our debt and other obligations from cash flows, we may need to refinance or restructure all or a portion of our debt obligations prior to maturity. Our ability to refinance or restructure our debt and other obligations will depend upon the condition of the capital markets and our financial condition at such time. Any refinancing or restructuring could be at higher interest rates and may require us to comply with more onerous covenants, which could further restrict our business operations. If our cash flows are insufficient to service our debt and other obligations, we may not be able to refinance or restructure any of these obligations on commercially reasonable terms or at all and any refinancing or restructuring could have a material adverse effect on our business, results of operations, or financial condition.

If our cash flows are insufficient to fund our debt and other obligations and we are unable to refinance or restructure these obligations, we could face substantial liquidity problems and may be forced to reduce or delay investments and capital expenditures, or to sell material assets or operations to meet our debt and other obligations. We cannot assure you that we would be able to implement any of these alternative measures on satisfactory terms or at all or that the proceeds from such alternatives would be adequate to meet any debt or other obligations then due. If it becomes necessary to implement any of these alternative measures, our business, results of operations, or financial condition could be materially and adversely affected.

### ***Our indebtedness could have important consequences to us.***

Our indebtedness could have important consequences to us, including the following:

- making it more difficult for us to satisfy our obligations with respect to the 2030 Notes and our other indebtedness;
  - requiring us to dedicate a substantial portion of our cash flow from operations to debt service payments on our and our subsidiaries' debt, which reduces the funds available for working capital, capital expenditures, acquisitions and other general corporate purposes;
  - requiring us to comply with restrictive covenants in the indenture that governs the 2030 Notes, or the Indenture, which limit the manner in which we conduct our business;
  - limiting our flexibility in planning for, or reacting to, changes in the industry in which we operate;
  - placing us at a competitive disadvantage compared to any of our less leveraged competitors;
  - increasing our vulnerability to both general and industry-specific adverse economic conditions; and
  - limiting our ability to obtain additional debt or equity financing to fund future working capital, capital expenditures, acquisitions or other general corporate requirements and increasing our cost of borrowing.
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## **General Risks**

### ***Any legal proceedings or claims against us could be costly and time-consuming to defend and could harm our reputation regardless of the outcome.***

We are and/or may in the future become subject to legal proceedings and claims that arise in the ordinary course of business, including intellectual property, privacy, biometrics, data security, data protection, product liability, consumer protection, employment, class action, whistleblower, contract, securities, and other litigation claims, and governmental and other regulatory investigations and proceedings. For example, on March 9, 2022, an alleged shareholder filed a putative securities class action against us and certain of our executives and directors, alleging violations of Sections 11, 12(a)(2), and 15 of the Securities Act in connection with the registration statement for our direct listing. The parties have stipulated to a dismissal of the Superior Court case, and the matter was dismissed on August 2, 2022, but we anticipate the shareholder will refile this action in Federal Court. Additionally, we have been and may continue to be subject to legal proceedings asserting claims arising from allegations that we disabled access to virtual items found to violate our Terms of Use. In this and similar lawsuits brought on behalf of child users, the court may allow minors to disaffirm or avoid enforcement of our Terms of Use, depending on the circumstances. Such matters can be time-consuming, divert management's attention and resources, cause us to incur significant expenses or liability, or require us to change our business practices. The expense of litigation and the timing of this expense from period to period are difficult to estimate, subject to change, and could adversely affect our financial condition and results of operations. Because of the potential risks, expenses, and uncertainties of litigation, we may, from time to time, settle disputes, even where we have meritorious claims or defenses, by agreeing to settlement agreements. Any of the foregoing could adversely affect our business, financial condition, and results of operations.

### ***Catastrophic events may disrupt our business.***

Natural disasters or other catastrophic events may cause damage or disruption to our operations, international commerce, and the global economy, and thus could harm our business. We have our headquarters and a large employee presence in San Mateo, California, an area which in recent years has been increasingly susceptible to fires, severe weather events, and power outages, any of which could disrupt our operations, and which contains active earthquake zones. In the event of a major earthquake, hurricane, or catastrophic event such as fire, power loss, rolling blackouts, telecommunications failure, pandemic, cyber-attack, war, or terrorist attack, we may be unable to continue our operations and may endure system interruptions, reputational harm, delays in our Platform development, lengthy interruptions in our Platform, breaches of security, and loss of critical data, all of which would harm our business, results of operations, and financial condition. Acts of terrorism and similar events would also cause disruptions to the internet or the economy as a whole. In addition, the insurance we maintain would likely not be adequate to cover our losses resulting from disasters or other business interruptions. Our disaster recovery plan may not be sufficient to address all aspects of any unanticipated consequence or incident, we may not be able to maintain business continuity at profitable levels or at all, and our insurance may not be sufficient to compensate us for the losses that could occur.

### ***Our operations are subject to the effects of a rising rate of inflation and volatile global economic conditions.***

The United States, Europe and other key global markets have recently experienced historically high levels of inflation. If the inflation rate continues to increase, it will likely affect all of our expenses, including, but not limited to, employee compensation expenses and energy expenses and it may reduce consumer discretionary spending, which could affect the buying power of our users, developers, and creators and lead to a reduced demand for our Platform.

Additionally, geopolitical developments, such as the war in Ukraine and tensions with China, and the responses by central banking authorities to control inflation, can increase levels of political and economic unpredictability globally and increase the volatility of global financial markets. Adverse macroeconomic conditions, including lower consumer confidence, slower growth or recession, changes to fiscal and monetary policy, inflation, higher interest rates, currency fluctuations, the availability and cost of credit, and the strength of the economies in which we and our users are located, have adversely affected and may continue to adversely affect our consolidated financial condition and results of operations.

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***If we are determined to be an “investment company,” it will significantly affect our operational flexibility and our operating results.***

If the SEC determines that we are required to register as an “investment company” it would result in the imposition of additional corporate governance and operational requirements through the application of the federal Investment Company Act of 1940. Any such burdens could be material. Among the particular repercussions for us as an “investment company” under the Investment Company Act of 1940, could be a short or long-term affect to liquidity and an increase our cost of capital and operational expenses, all of which would adversely affect our operating results. It is possible that such an outcome could threaten the viability of our business.

**Item 1B. Unresolved Staff Comments**

None.

**Item 2. Properties**

As of December 31, 2022, our corporate headquarters consisted of approximately 427,271 square feet of office space in San Mateo, California, with lease terms expiring between 2027 and 2031. In addition, in March 2022, we signed a new lease in San Mateo, California for office space of approximately 438,385 square feet consisting of two buildings with lease terms of approximately 13 years and 12 years each. The Company has obtained possession of one of the buildings comprising 218,554 square feet, which it has not yet occupied. Possession of the second building comprising 219,831 square feet is expected to be obtained in the second quarter of 2023.

On February 11, 2023, the Company executed a lease assignment as sub-lessee pursuant to which the Company will sublease approximately 179,496 square feet of office space in San Mateo, California for a lease term of approximately 7 years (the “Sub-Lessee Agreement”). Concurrent with the execution of the Sub-Lessee Agreement, the Company executed a sublease as sub-lessor pursuant to which it will sublease approximately 78,911 square feet of its San Mateo, California corporate headquarters to the sub-lessee for a lease term of approximately 4 years (the “Sub-Lessor Agreement”). Both the Sub-Lessee Agreement and Sub-Lessor Agreement are contingent upon each respective landlord’s consent, amongst other contingencies.

We lease additional office space internationally in Canada, the United Kingdom, and China. We also operate several data centers in the U.S. in Florida, Georgia, Illinois, New Jersey, Texas, Virginia, California, and Washington and around the world including in France, Germany, Hong Kong, Japan, Poland, Singapore, the Netherlands, India, Australia, and the United Kingdom pursuant to various lease agreements. We believe our existing facilities are adequate to meet our current requirements.

We believe our existing facilities including the planned expansion under newly signed leases are adequate to meet our current requirements and for our operations in the foreseeable future.

**Item 3. Legal Proceedings**

The information set forth under the heading “Legal Proceedings” in Note 9, Commitments and Contingencies, in Part II, Item 8 of this Annual Report on Form 10-K is incorporated herein by reference.

**Item 4. Mine Safety Disclosures**

None.



## Part II

### Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Our Class A common stock, par value \$0.0001 per share, is listed on the New York Stock Exchange ("NYSE"), under the symbol "RBLX" and began trading on March 10, 2021. Prior to that date, there was no public trading market for our Class A common stock.

Our Class B common stock is not listed nor traded on any stock exchange, but is convertible into shares of our Class A common stock on a one-for-one basis.

#### Holders of Record

As of February 15, 2023, there were 1,596 stockholders of record of our Class A common stock. The actual number of holders of our Class A common stock is greater than the number of record holders and includes stockholders who are beneficial owners, but whose shares are held in street name by brokers or other nominees. The number of holders of record presented here also does not include stockholders whose shares may be held in trust by other entities.

As of February 15, 2023, there were 3 holders of record of our Class B common stock. All shares of our Class B common stock are beneficially owned by David Baszucki.

#### Dividend Policy

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain any future earnings and do not expect to pay any dividends in the foreseeable future. Any future determination to declare cash dividends will be made at the discretion of our Board of Directors, subject to applicable laws, and will depend on a number of factors, including our financial condition, results of operations, capital requirements, contractual restrictions, general business conditions and other factors that our Board of Directors may deem relevant.

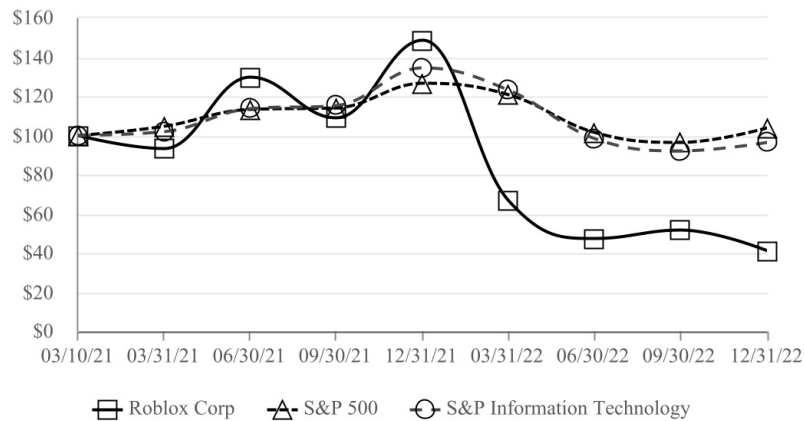
#### Stock Performance Graph

*The performance graph below shall not be deemed "soliciting material" or to be "filed" with the SEC, for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any of our filings under the Securities Act.*

The performance graph below shows the cumulative total return to our stockholders between March 10, 2021 (the date that our Class A common stock commenced trading on the NYSE) through December 31, 2022, in comparison to the S&P 500 Index and the S&P 500 Information Technology Index. The graph assumes (i) that \$100 was invested in each of our Class A common stock, the S&P 500 Index, and the S&P 500 Information Technology Index at their respective closing prices on March 10, 2021 and (ii) reinvestment of gross dividends. The stock price performance shown in the graph represents past performance and should not be considered an indication of future stock price performance.

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**Comparison of 22 Month Cumulative Total Return for Roblox Corp, S&P 500, and S&P Information Technology\***



\*\$100 invested on 3/10/21 in stock or 2/28/21 in index, including reinvestment of dividends. Fiscal year ending December 31.

**Unregistered Sales of Equity Securities**

Other than any sales that were already disclosed under a Current Report on Form 8-K or Quarterly Report on Form 10-Q during the year ended December 31, 2022, there have been no other sales of unregistered securities by the Company.

**Issuer Purchases of Equity Securities**

None.

**Item 6. [Reserved]**

**Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations**

*The following discussion and analysis of our financial condition, results of operations and cash flows should be read in conjunction with the consolidated financial statements and the related notes appearing under “Consolidated Financial Statements and Supplementary Data” in Item 8 of this filing. This discussion and analysis and other parts of this Annual Report on Form 10-K contain forward-looking statements, such as those relating to our plans, objectives, expectations, intentions, and beliefs, that involve risks, uncertainties and assumptions. Our actual results could differ materially from these forward-looking statements as a result of many factors, including those discussed in the section titled “Risk Factors,” “Special Note Regarding Forward-Looking Statements”, and “Special Note Regarding Operating Metrics” included elsewhere in this Annual Report on Form 10-K. Our historical results are not necessarily indicative of the results that may be expected for any periods in the future. Unless the context otherwise requires, all references in this report to “Roblox,” the “Company”, “we,” “our,” “us,” or similar terms refer to Roblox Corporation and its subsidiaries.*

*This section of our Annual Report on Form 10-K discusses our financial condition as of and results of operations for the fiscal years ended December 31, 2022 and 2021, as well as year-to-year comparisons between fiscal years 2022 and fiscal 2021. A discussion of our financial condition as of and results of operations for the fiscal year ended 2020 and year-to-year comparisons between fiscal 2021 and fiscal 2020 that is not included in this Annual Report on Form 10-K can be found in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our Annual Report on Form 10-K for the year ended December 31, 2021.*

*Amounts reported in millions are rounded based on the amounts in thousands. As a result, the sum of the components reported in millions may not equal the total amount reported in millions due to rounding. In addition, percentages presented are calculated from the underlying numbers in thousands and may not add to their respective totals due to rounding.*

## **Overview**

People from around the world come to Roblox every day to connect with friends. Together they play, learn, communicate, explore, and expand their friendships, all in 3D digital worlds that are entirely user-generated, built by our community of developers. We call this emerging category “human co-experience,” which we consider to be the new form of social interaction. Our platform is powered by user-generated content and draws inspiration from gaming, entertainment, social media, and even toys.

Our Roblox human co-experience platform consists of the Roblox Client, the Roblox Studio, and the Roblox Cloud (collectively, the “Roblox Platform” or the “Platform”). Roblox Client is the free application that allows users to explore 3D digital worlds. Roblox Studio is the free toolset that allows developers and creators to build, publish, and operate 3D experiences and other content accessed with the Roblox Client. Roblox Cloud includes the services and infrastructure that power our human co-experience Platform.

Our mission is to connect a billion people with optimism and civility. We are constantly improving the ways in which the Roblox Platform supports shared experiences, ranging from how these experiences are built by an engaged community of developers, to how they are enjoyed and safely accessed by users across the globe.

Our primary areas of investment have been, and we expect will continue to be, our developer and creator community, and the people, technology, real estate, and infrastructure required to keep improving the Roblox Platform. These areas of focus are how we drive the business and are reflected in our operating cost structure, which primarily consists of four major areas: payment processing and other fees, compensation and benefits, developer earnings, and direct infrastructure.

## **Key Metrics**

We believe our performance is dependent upon many factors, including the key metrics described below that we track and review to measure our performance, identify trends, formulate financial projections, and make strategic decisions.

## **Operating Metrics**

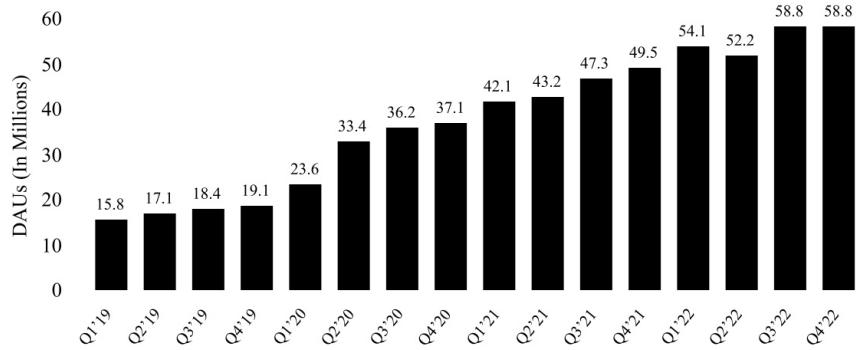
We manage our business by tracking several operating metrics, including daily active users (“DAUs”), hours engaged, and average bookings per DAU (“ABPDAU”). As a management team, we believe each of these operating metrics provides useful information to investors and others. For complete definitions and limitations of these metrics, refer to the section titled “Special Note Regarding Operating Metrics” of this Annual Report on Form 10-K.

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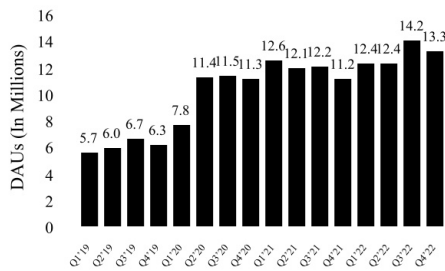
## DAUs

We define a DAU as a user who has logged in and visited Roblox through our website or application on a unique registered account on a given calendar day. If a registered, logged in user visits Roblox more than once within a 24-hour period that spans two calendar days, that user is counted as a DAU only for the first calendar day. We track DAUs as an indicator of the size of the audience engaged on our Platform. DAUs are also broken out by geographic region to help us understand the global engagement on our Platform. We believe that the growth in DAUs reflects the increasing value of our Platform.

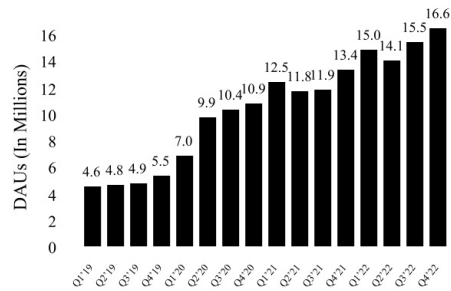
**Daily Active Users  
Global**

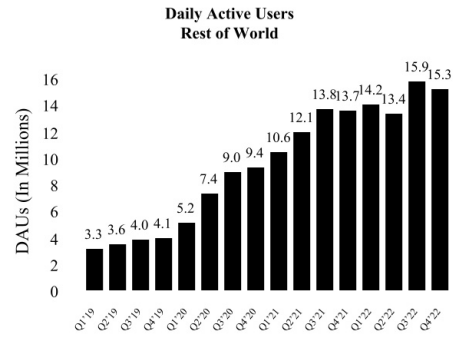
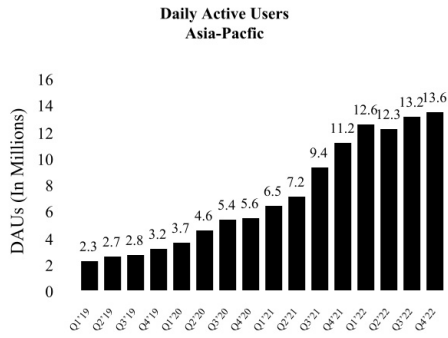


**Daily Active Users  
US & Canada**



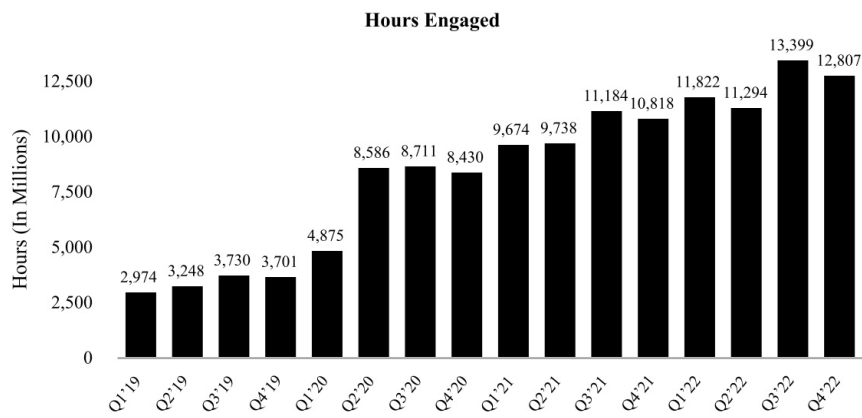
**Daily Active Users  
Europe**





**Hours engaged**

We define hours engaged as the time spent by our users on the Platform, which includes time spent in experiences and also within features such as chat and avatar personalization. We believe that the growth in hours engaged reflects the increasing value of our Platform.



**ABPDAU**

We define ABPDAU as bookings in a given period divided by the DAUs for the same period. We use ABPDAU as a way to understand our monetization across our users through the sale of virtual currency and subscriptions. Refer to the section titled "Non-GAAP Financial Measures" for the definition of and discussion on bookings, including its limitations as a non-GAAP financial measure.

### Average Bookings per Daily Active User



### Non-GAAP Financial Measures

In addition to our results determined in accordance with GAAP, we believe the following non-GAAP financial measures are useful in evaluating our performance. We use this non-GAAP financial information to evaluate our ongoing operations, for internal planning and forecasting purposes and to evaluate our operating performance for compliance with certain covenants specified in the restrictive covenants included in the indenture that governs the 2030 Notes (the "Indenture"). We believe that this non-GAAP financial information may be helpful to investors because it provides consistency and comparability with past financial performance. However, non-GAAP financial measures have limitations in their usefulness to investors because they have no standardized meaning prescribed by GAAP and are not prepared under any comprehensive set of accounting rules or principles. In addition, other companies, including companies in our industry, may calculate similarly titled non-GAAP financial measures differently or may use other measures to evaluate their performance, all of which could reduce the usefulness of our non-GAAP financial information as a tool for comparison. As a result, our non-GAAP financial information is presented for supplemental informational purposes only and should not be considered in isolation from, or as a substitute for financial information presented in accordance with GAAP.

### Bookings

Bookings represent the sales activity in a given period without giving effect to certain non-cash adjustments, as detailed below. Substantially all of our bookings are generated from sales of virtual currency, which can be converted to virtual items on the Roblox Platform. Sales of virtual currency reflected as bookings include one-time purchases or monthly subscriptions purchased via payment processors or through prepaid cards. Bookings are initially recorded in deferred revenue and recognized as revenues over the estimated period of time the virtual items purchased with the virtual currency are available on the Roblox Platform (estimated to be the average lifetime of a paying user) or as the virtual items purchased with the virtual currency are consumed. Bookings also include an insignificant amount from advertising and licensing arrangements.

We believe bookings provide a timelier indication of trends in our operating results that are not necessarily reflected in our revenue as a result of the fact that we recognize the majority of revenue over the estimated average lifetime of a paying user. The change in deferred revenue constitutes the vast majority of the reconciling difference from revenue to bookings. By removing these non-cash adjustments, we are able to measure and monitor our business performance based on the timing of actual transactions with our users and the cash that is generated from these transactions. Over the long-term, the factors impacting our revenue and bookings trends are the same. However, in the short-term, there are factors that may cause revenue and bookings trends to differ in any period.

	Year Ended December 31,		
	2022	2021	2020
	(in thousands)		
Bookings	\$ 2,872,258	\$ 2,725,706	\$ 1,882,543

The following table presents a reconciliation of revenue, the most directly comparable financial measure calculated in accordance with GAAP, to bookings, for each of the periods presented (in thousands):

	Year Ended December 31,		
	2022	2021	2020
<b>Reconciliation of revenue to bookings:</b>			
Revenue	\$ 2,225,052	\$ 1,919,181	\$ 923,885
Add (deduct):			
Change in deferred revenue	662,378	819,927	965,919
Other	(15,172)	(13,402)	(7,261)
Bookings	<u>\$ 2,872,258</u>	<u>\$ 2,725,706</u>	<u>\$ 1,882,543</u>

#### Free cash flow

We define free cash flow as net cash provided by operating activities less purchases of property, equipment, and intangible assets acquired through asset acquisitions. We believe that free cash flow is a useful indicator of our unit economics and liquidity that provides information to management and investors about the amount of cash generated from our core operations that, after the purchases of property, equipment, and intangible assets acquired through acquisitions, can be used for strategic initiatives.

	Year Ended December 31,		
	2022	2021	2020
	(in thousands)		
Free cash flow	\$ (58,367)	\$ 557,980	\$ 411,220

The following table presents a reconciliation of net cash from operating activities, the most directly comparable financial measure calculated in accordance with GAAP, to free cash flow, for each of the periods presented (in thousands):

	Year Ended December 31,		
	2022	2021	2020
<b>Reconciliation of net cash from operating activities to free cash flow:</b>			
Net cash provided by operating activities	\$ 369,296	\$ 659,109	\$ 524,340
Add (deduct):			
Acquisition of property and equipment	(426,163)	(93,273)	(104,153)
Purchases of intangible assets	(1,500)	(7,856)	(8,967)
Free cash flow	<u>\$ (58,367)</u>	<u>\$ 557,980</u>	<u>\$ 411,220</u>

Acquisition of property and equipment primarily includes servers, infrastructure equipment and tenant improvements.

### Adjusted EBITDA

Adjusted EBITDA for purposes of the table below is calculated in accordance with the calculation of "Consolidated EBITDA" as that term is defined in the indenture governing the 2030 Notes (the "Indenture"). Adjusted EBITDA is a measure of operating performance as used in certain covenant calculations specified in the Indenture that is not calculated in accordance with GAAP and may not conform to the calculation of EBITDA in other circumstances. Management believes that, when considered together with reported amounts, this measure is useful to investors and management in understanding our ongoing operations and operating trends for purposes of analyzing the covenants specified in the Indenture. Adjusted EBITDA should be considered in connection with our consolidated financial statements and results presented in accordance with GAAP.

	Year Ended December 31,		
	2022	2021	2020
	(in thousands)		
Adjusted EBITDA	\$ 356,456	\$ 673,926	\$ 600,177

The following table presents a reconciliation of consolidated net loss, the most directly comparable financial measure calculated in accordance with GAAP, to Adjusted EBITDA, for each of the periods presented (in thousands):

	Year Ended December 31,		
	2022	2021	2020
<b>Reconciliation of consolidated net loss to Adjusted EBITDA:</b>			
Consolidated net loss	\$ (934,141)	\$ (503,480)	\$ (257,691)
Add (deduct):			
Interest income	(38,842)	(92)	(1,822)
Interest expense	39,903	6,998	—
Other (income)/expense, net	5,744	1,796	32
Provision for/(benefit from) income taxes	3,552	(320)	(6,656)
Depreciation and amortization	130,083	75,622	43,808
Stock-based compensation expense	589,498	341,942	79,158
Change in fair value of warrants	—	—	1,890
Accretion and amortization on marketable securities	—	—	5
Change in deferred revenue	662,378	819,927	965,919
Change in deferred cost of revenue	(101,719)	(172,828)	(230,404)
Fees related to equity offering	—	50,586	5,938
Fees related to certain legal settlements	—	53,775	—
Adjusted EBITDA	<u>\$ 356,456</u>	<u>\$ 673,926</u>	<u>\$ 600,177</u>

### Impact of COVID-19

Although the COVID-19 pandemic caused general business disruption worldwide beginning in January 2020, it resulted in an increase in our operational performance, cash flows, and financial condition. We experienced an increase in user and bookings growth following the implementation of shelter-in-place orders to mitigate the COVID-19 pandemic. The COVID-19 pandemic accelerated adoption of our Platform, which generated additional opportunities for us.

However, this increase in engagement and monetization was temporary and we have seen it moderate as children continue return to classrooms and shelter-in-place orders have been lifted. We have early indication on some persistence of certain COVID impacts such as increased frequency of visits to the Platform compared to pre-COVID impacted periods, but there is still uncertainty around long-term effects of the COVID-19 pandemic or recovery from the COVID-19 pandemic to the Platform. There can be no assurance that, as a result of the COVID-19 pandemic, recovery from it, or other global economic conditions (including fluctuation in foreign currency exchange rates, interest rates and inflation), users will not reduce their discretionary spending on Robux, will renew their subscriptions or may otherwise increase or maintain their usage of our Platform, which may adversely impact our revenue and financial condition.



As it relates to our employees, in the second quarter of 2022, we shifted to our “future of work” plan, which includes a hybrid model where the majority of our employees work from one of our offices between one to five days per week and the remaining employees work remotely.

We continue to monitor the COVID-19 pandemic and may take further actions as may be required by government authorities or that we determine are in the best interests of our employees, customers, and business partners if and as infection rates or hospitalizations increase. The full extent to which the COVID-19 pandemic or recovery from the COVID-19 pandemic will directly or indirectly impact the global economy, the lasting social effects, and impact on our business, results of operations and financial condition will depend on future developments that are highly uncertain and cannot be accurately predicted. For additional details, refer to the section titled “Risk Factors—The global COVID-19 pandemic has significantly affected our business and operations.”

### **Change in Accounting Estimate**

Every quarter, we complete an assessment of our estimated paying user life, which is used for revenue recognition of durable virtual items and calculated based on historical monthly retention data for each paying user cohort to project future participation on the Roblox Platform. In 2021, our estimated paying user life was 23 months. In the first quarter of 2022, we updated our estimated paying user life to 25 months, which was subsequently updated again to 28 months in the third quarter of 2022. Based on the carrying amount of deferred revenue and deferred cost of revenue as of December 31, 2021, the changes in estimates discussed above resulted in a decrease in revenue of \$344.9 million and a decrease in cost of revenue of \$79.3 million during the twelve months ended December 31, 2022.

Refer to the heading “Critical Accounting Policies and Estimates — Revenue Recognition” later in this section below for a complete discussion on the Company’s revenue recognition policies.

### **Components of Results of Operations**

#### **Revenue**

We generate substantially all of our revenue through the sale of virtual items on the Roblox Platform. Users can purchase and spend Robux to obtain virtual items to enhance their social experience on the Roblox Platform. We recognize revenue over the estimated period of time the virtual items are available to the user on the Roblox Platform (estimated average lifetime of a paying user) or at the time the virtual item is consumed. The average lifetime of a paying user is calculated based on the monthly retention data for each paying user cohort. We then calculate the average retention period by determining the weighted-average period paying users have spent on the Platform and are projected to participate in the Roblox environment. The average lifetime for a paying user as of December 31, 2022 was 28 months, and as of December 31, 2021 and December 31, 2020 was 23 months. Refer to the heading “Change in Accounting Estimate” in the section above for more information on the change in this estimate year over year.

Other revenue streams include an insignificant amount of revenue from advertising, licenses, and royalties. All of our revenue is recorded net of taxes assessed by a government authority that are both imposed on and concurrent with specific revenue transactions between us and our users, and estimated chargebacks and refunds.

## Costs and Expenses

We allocate shared costs, such as facilities (including rent, depreciation on equipment and leasehold improvements shared by all departments) and software costs, to all departments based on headcount. As such, allocated shared costs are reflected in each expense category, with the exception of cost of revenue and developer exchange fees.

Personnel costs generally include salaries, benefits, travel-related expenses, and stock-based compensation and are reflected in each expense category, with the exception of cost of revenue and developer exchange fees. In the years ended December 31, 2022, 2021, and 2020, personnel costs were \$1,180.5 million, \$748.9 million, and \$292.9 million, respectively.

During the year ended December 31, 2021, we recorded a one-time catch-up of stock-based compensation expense of \$21.3 million related to the restricted stock units ("RSUs") granted prior to the Direct Listing of our Class A common stock on the NYSE (the "Direct Listing"), that vest upon the satisfaction of both a service condition and a liquidity event-related performance vesting condition, the latter of which was satisfied on the effective date of our final prospectus dated March 2, 2021 (the "Effective Date") and filed with the SEC pursuant to Rule 424(b)(4) on March 10, 2021. In addition, stock-based compensation expense attributable to the CEO Long-Term Performance Award granted in February 2021 – refer to "CEO Long-Term Performance Award" section below for more discussion on this award – and RSUs granted to employees subsequent to our Direct Listing account for a large portion of personnel costs during 2021.

## Cost of revenue

Cost of revenue primarily consists of third-party payment processing fees charged by the various distribution channels in connection with sales of our virtual currency. We initially defer payment processing fees and recognize them as expense over the same period as the respective revenue.

We intend to use nearly all of any efficiencies earned in this area over time to increase earnings for our developers and creators. Additionally, cost of revenue as a percentage of revenue is affected by shifts in user purchasing preferences and trends. Specifically, we have observed a shift of our sales toward prepaid card distribution channels, which are subject to lower processing fees compared to other distribution channels, such as the Apple App Store and Google Play Store.

## Developer exchange fees

Developer exchange fees represent the amount earned by developers and creators on the Platform. Developers and creators are able to exchange their earned Robux for real-world currency under certain conditions outlined in our Developer Exchange Program. Developers and creators can earn Robux through sale of access to their experiences and enhancements in their experiences, sale of content and tools between developers through the Studio Marketplace, and the sale of items to users through the Avatar Marketplace. Developers can also earn Robux through our engagement-based reward program that rewards developers based on the number of hours spent in their experiences by Roblox Premium subscribers.

Over the next few years, a major goal is to increase our developer and creator earnings as much as possible through cost efficiencies realized in other areas of our business, while maintaining reasonable margins.

## Infrastructure and trust & safety

Infrastructure and trust & safety expenses consist primarily of expenses related to the operation of our data centers and technical infrastructure. These costs include third-party service providers costs, such as cloud computing or other hosting and data storage, rent and facilities-related expenses for our co-located data centers and edge data centers that we lease and operate, network and bandwidth costs, as well as depreciation and associated support and maintenance of our servers and infrastructure equipment. In the years ended December 31, 2022, 2021, and 2020, depreciation expense related to infrastructure and trust & safety was \$108.0 million, \$60.8 million, and \$40.4 million, respectively.

Infrastructure and trust & safety expenses also include personnel costs for and allocated overhead expenses related to employees whose primary responsibilities relate to supporting our infrastructure and trust & safety initiatives. In the year ended December 31, 2022, 2021, and 2020, stock-based compensation related to infrastructure and trust & safety was \$56.2 million, \$35.3 million, and \$7.4 million, respectively.

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We plan to continue increasing the capacity, capability, and reliability of our infrastructure to support more sophisticated content, more users, and increased engagement. We expect to increase the dollar amount of our investment in infrastructure for the foreseeable future as we continue to build out our global infrastructure. We intend to achieve scalability and operating leverage by building and maintaining our own technical infrastructure.

**Research and development**

Research and development expenses consist primarily of personnel costs and allocated overhead expenses for our engineering, design, product management, data science, and other employees engaged in maintaining and enhancing the functionality of the Platform. We plan to increase research and development expenses for the foreseeable future primarily driven by increased headcount to develop new features, functionality, and innovation of our product.

**General and administrative**

General and administrative expenses consist primarily of personnel costs and allocated overhead for our finance and accounting, legal, human resources, talent acquisition, and other administrative teams. General and administrative expenses also include professional services fees such as outside legal, accounting, audit, and outsourcing services, and other corporate expenses, as well as certain accruals and settlements associated with legal proceedings. We plan to increase general and administrative expenses for the foreseeable future to support the growth of the business.

**Sales and marketing**

Sales and marketing expenses consist primarily of user acquisition expenses and personnel costs and allocated overhead for our marketing, business development, and developer relations functions. Other expenses include those associated with market research, branding, public relations, and developer relations programs, including our annual Roblox Developer Conference. We plan to increase our sales and marketing expenses for the foreseeable future, primarily driven by increased headcount to support our developer relations and brand partnership teams.

**Interest income**

Interest income consists primarily of interest earned on our cash, cash equivalents, and restricted cash balances (if any).

**Interest expense**

Interest expense consists primarily of contractual interest and amortization of debt issuance costs on our 2030 Notes.

**Other income/(expense), net**

Other income (expense), net primarily includes foreign currency exchange gains and losses.

**Provision for/(benefit from) income taxes**

Provision for/(benefit from) income taxes consists primarily of state, foreign and U.S. federal income taxes. We maintain a full valuation allowance on all of our deferred tax assets as we have concluded that it is not likely that the deferred assets will be utilized.

## Results of Operations

The following tables set forth our results of operations for the periods presented in dollars and as a percentage of our revenue for each of the periods presented (in thousands, except percentages):

	Year Ended December 31,			
	2022		2021	
Revenue	\$ 2,225,052	100 %	\$ 1,919,181	100 %
Cost and expenses:				
Cost of revenue <sup>(1)</sup>	547,658	25 %	496,870	26 %
Developer exchange fees	623,855	28 %	538,321	28 %
Infrastructure and trust & safety <sup>(2)</sup>	689,081	31 %	456,498	24 %
Research and development <sup>(2)</sup>	873,477	39 %	533,207	28 %
General and administrative <sup>(2)</sup>	297,317	13 %	303,020	16 %
Sales and marketing <sup>(2)</sup>	117,448	5 %	86,363	4 %
Total cost and expenses	3,148,836	142 %	2,414,279	126 %
Loss from operations	(923,784)	(42)%	(495,098)	(26)%
Interest income	38,842	2 %	92	— %
Interest expense	(39,903)	(2)%	(6,998)	— %
Other income/(expense), net	(5,744)	— %	(1,796)	— %
Loss before income taxes	(930,589)	(42)%	(503,800)	(26)%
Provision for/(benefit from) income taxes	3,552	— %	(320)	— %
Consolidated net loss	(934,141)	(42)%	(503,480)	(26)%
Net loss attributable to the noncontrolling interest <sup>(3)</sup>	(9,775)	— %	(11,829)	(1)%
Net loss attributable to common stockholders	\$ (924,366)	(42)%	\$ (491,651)	(26)%
Net loss per share attributable to common stockholders, basic and diluted	\$ (1.55)		\$ (0.97)	
Weighted-average shares used in computing net loss per share attributable to common stockholders—basic and diluted	595,559		505,858	

(1) Depreciation of servers and infrastructure equipment included in infrastructure and trust & safety.

(2) Includes stock-based compensation as follows:

	Year Ended December 31,	
	2022	2021
Infrastructure and trust & safety	\$ 56,197	\$ 35,255
Research and development	398,899	219,851
General and administrative	109,607	72,929
Sales and marketing	24,795	13,907
Total stock-based compensation	\$ 589,498	\$ 341,942

During the year ended December 31, 2021, we recorded a one-time catch-up of stock-based compensation expense of \$21.3 million related to the RSUs granted prior to our Direct Listing that vest upon the satisfaction of both the service condition and a liquidity event-related performance vesting condition which was satisfied on the Effective Date.

(3) Our consolidated financial statements include our majority-owned subsidiary Roblox China Holding Corp. The ownership interest of a minority investor, Songhua River Investment Limited, is recorded as a noncontrolling interest.

## Comparison of the Years Ended December 31, 2022, and 2021

### Revenue

	Year Ended December 31,		2021 to
	2022	2021	2022
			% Change
	(dollars in thousands)		
Revenue	\$ 2,225,052	\$ 1,919,181	16 %

Revenue in the year ended December 31, 2022 increased \$305.9 million, or 16%, compared to the year ended December 31, 2021. The increase is primarily due to a higher amortization of prior period deferred revenue and an increase in bookings. The increase in bookings was primarily driven by a higher average number of daily unique paying users during 2022, which increased from approximately 678,000 in 2021 to approximately 725,000 in 2022. The average number of daily unique paying users represents the number of user accounts that made a purchase on the Platform, including via redemption of prepaid cards for Robux, on an average daily basis during the respective period. The overall increase in revenue was offset by changes in our estimated paying user life, which increased from 23 months as of December 31, 2021 to 28 months as of December 31, 2022.

Refer to the heading “Changes in Accounting Estimate” earlier in this section above for more information on the change in paying user life estimates.

### Cost of revenue

	Year Ended December 31,		2021 to
	2022	2021	2022
			% Change
	(dollars in thousands)		
Cost of revenue	\$ 547,658	\$ 496,870	10 %

Cost of revenue increased \$50.8 million, or 10%, for the year ended December 31, 2022 compared to the year ended December 31, 2021. The increase is primarily due to a net increase of \$49.2 million in payment processing fees related expense, primarily driven by the growth in our bookings and partially offset by lower amortization of payment processing fee expense from current period and prior period bookings resulting from the change in our paying user life estimate as those costs are amortized over the estimated paying user life.

Refer to the heading “Changes in Accounting Estimate” earlier in this section above for more information on the change in paying user life estimates.

### Developer exchange fees

	Year Ended December 31,		2021 to
	2022	2021	2022
			% Change
	(dollars in thousands)		
Developer exchange fees	\$ 623,855	\$ 538,321	16 %

Developer exchange fees increased \$85.5 million, or 16%, for the year ended December 31, 2022 compared to the year ended December 31, 2021. The increase is primarily driven by an increase in amounts earned by developers and creators due to the growth in bookings over the same period. However, increases to our Premium Payouts program (which is based on user engagement, not bookings) have contributed to developer exchange fees growing at a faster rate than bookings.

**Infrastructure and trust & safety**

	Year Ended December 31,		2021 to
	2022	2021	% Change
	(dollars in thousands)		
Infrastructure and trust & safety	\$ 689,081	\$ 456,498	51 %

Infrastructure and trust & safety expenses increased \$232.6 million, or 51%, for the year ended December 31, 2022 compared to the year ended December 31, 2021. The increase is primarily due to an increase of \$165.2 million related to our data center and technical infrastructure expenses associated with providing the Platform to our users as well as depreciation of our servers and infrastructure equipment. The increase was further driven by an increase of \$40.1 million in personnel costs, which includes an increase of \$20.9 million in stock-based compensation expense, primarily due to an increase in headcount to support our infrastructure growth.

**Research and development**

	Year Ended December 31,		2021 to
	2022	2021	% Change
	(dollars in thousands)		
Research and development	\$ 873,477	\$ 533,207	64 %

Research and development expenses increased \$340.3 million, or 64%, for the year ended December 31, 2022 compared to the year ended December 31, 2021. The increase is primarily due to an increase of \$302.1 million in personnel costs, which includes an increase of \$179.1 million in stock-based compensation expense. This increase is primarily due to continued growth in headcount supporting our engineering, design, and product teams. The increase was further supplemented by increases of \$19.3 million for facilities allocation, \$9.0 million for software, and \$5.6 million in amortization of intangible assets from acquisitions.

**General and administrative**

	Year Ended December 31,		2021 to
	2022	2021	% Change
	(dollars in thousands)		
General and administrative	\$ 297,317	\$ 303,020	(2) %

General and administrative expenses decreased \$5.7 million, or 2%, for the year ended December 31, 2022 compared to the year ended December 31, 2021. The decrease is primarily due to a decrease of \$97.0 million in professional services expenses, primarily driven by one-time fees related to the Direct Listing of \$50.7 million in early 2021 and further supplemented by charges related to the National Music Publishers Association lawsuit and other litigations (including settlements) during 2021, totaling \$58.4 million. The overall decrease in general and administrative expenses was offset by an increase in personnel costs of \$74.8 million to support increased headcount, which includes an increase of \$36.7 million in stock-based compensation expense, \$6.0 million for facilities allocation, \$3.4 million for general software allocation, \$3.3 million for travel and entertainment expenses, and \$2.1 million for recruiting expenses.

## Sales and marketing

	Year Ended December 31,		2021 to
	2022	2021	2022
			% Change
	(dollars in thousands)		
Sales and marketing	\$ 117,448	\$ 86,363	36 %

Sales and marketing expenses increased \$31.1 million, or 36%, for the year ended December 31, 2022 compared to the year ended December 31, 2021. The increase is primarily due to \$14.5 million in personnel costs, which includes an increase in stock-based compensation expense of \$10.9 million. Additionally, marketing and promotional expenses increased by \$11.6 million primarily due to advertising costs.

## Interest income, interest expense, other income/(expense), and provision for/(benefit from) income taxes

	Year Ended December 31,		2021 to
	2022	2021	2022
			% Change
	(dollars in thousands)		
Interest income	\$ 38,842	\$ 92	42,120 %
Interest expense	\$ (39,903)	\$ (6,998)	470 %
Other income/(expense), net	\$ (5,744)	\$ (1,796)	220 %
Provision for/(benefit from) income taxes	\$ 3,552	\$ (320)	N/A

Interest income increased \$38.8 million for the year ended December 31, 2022 compared to the year ended December 31, 2021. The increase is primarily due to a higher average amount invested in cash equivalents when compared to the prior period, coupled with rising interest rates.

Interest expense increased by \$32.9 million for the year ended December 31, 2022 compared to the year ended December 31, 2021. The increase is due to contractual interest and amortization of debt issuance costs for the 2030 Notes issued in October 2021.

Other income/(expense), net changed by \$3.9 million for the year ended December 31, 2022 compared to 2021. The change was primarily due to higher foreign exchange losses during the year ended December 31, 2022 as a result of foreign currency fluctuations.

Provision for/(benefit from) income taxes changed by \$3.9 million for the year ended December 31, 2022 as compared to prior year ended December 31, 2021. The change was primarily due to higher state income tax expense, mainly driven by tax attribute limitations for certain states, and an increase foreign income tax expense, primarily driven by increased foreign operations.

## Liquidity and Capital Resources

As of December 31, 2022 and 2021, our principal sources of liquidity were cash and cash equivalents of \$3.0 billion, which were held primarily for working capital purposes, capital expenditures and acquisitions.

Since our inception, we have financed our operations primarily through cash generated from operations and, to a lesser extent, sales of convertible preferred stock, borrowings under our credit facilities and, more recently, the sale of our 2030 Notes. We require payment upfront for substantially all of our bookings.

On October 29, 2021, we issued the 2030 Notes, which will mature on May 1, 2030, unless earlier repurchased or redeemed. Interest is payable semi-annually in arrears on May 1 and November 1 of each year, commencing on May 1, 2022. The net proceeds from the 2030 Notes issuance were approximately \$987.5 million and we intend to use the net proceeds for general corporate purposes, which may include capital purposes, capital expenditures and acquisitions.

As of December 31, 2022, contractual obligations related to the 2030 Notes are remaining payments of \$38.8 million each year from 2023 through 2029 and \$1,019.4 million due in 2030. These amounts represent principal and interest cash payments over the term of the 2030 Notes. Any future redemption of the 2030 Notes could impact the amount or timing of our cash payments. For more information regarding the 2030 Notes, see Note 8, "Debt" to the notes to consolidated financial statements.

As of December 31, 2022, we have non-cancelable lease arrangements for office facilities and space for data center operations expiring in various years through 2035. As of December 31, 2022, the Company had fixed lease payment obligations of \$739.2 million, with \$63.2 million payable within 12 months. For more information regarding the operating lease commitments, refer to Note 3, "Leases" to the notes to consolidated financial statements.

Our other purchase obligations primarily consist of non-cancelable obligations with our data center hosting providers and software vendors. As of December 31, 2022, we had other purchase obligations of \$234.4 million, with \$225.7 million payable within 12 months. For more information regarding our contractual obligations, refer to Note 9, "Commitments and Contingencies" to the notes to consolidated financial statements.

For all periods presented, we have generated losses from our operations and positive cash flows from operating activities. A substantial source of our cash provided by operating activities is our deferred revenue, which is included on our consolidated balance sheets as a liability. Deferred revenue consists of the unearned portion of bookings for which we have not yet satisfied our performance obligation. Our deferred revenue obligation is recognized as revenue over the estimated average lifetime of a paying user or as the virtual items are consumed.

We expect to continue to incur operating losses for the foreseeable future due to the investments that we intend to make in our business, including, but not limited, capital expenditures related to our technology infrastructure.

We believe our existing cash and cash equivalents, together with cash provided by operations, will be sufficient to meet our needs for the next 12 months. Our future capital requirements, however, will depend on many factors, including our growth rate, investment in our headcount, capital expenditures to build out new facilities and purchase hardware for infrastructure, timing and extent of spending to support our efforts to develop our Platform, and the effects of inflation on these various expenses, amongst other factors. We may in the future enter into arrangements to acquire or invest in complementary businesses, services, and technologies, including intellectual property rights. In the event that additional financing is required from outside sources, we may seek to raise additional funds at any time through equity, equity-linked arrangements, or debt. If we are unable to raise additional capital when desired and at reasonable rates, our business, results of operations, and financial condition would be adversely affected. See Part 1, Item 1A. "Risk Factors" for more information.

## Cash Flows

The following table summarizes our cash flows for the periods presented (in thousands):

	Year Ended December 31,	
	2022	2021
<b>Consolidated Statements of Cash Flows Data:</b>		
Net cash provided by operating activities	\$ 369,296	\$ 659,109
Net cash (used in) investing activities	\$ (441,051)	\$ (146,821)
Net cash provided by financing activities	\$ 43,642	\$ 1,598,124

## Operating activities

Our largest source of operating cash is cash collection from sales of Robux and monthly subscriptions. Our primary uses of cash from operating activities are for payment processing fees, personnel-related expenses, data center and infrastructure-related operations, developer exchange fees, and other operating expenses.



During the year ended December 31, 2022, cash and cash equivalents provided by operating activities was \$369.3 million, which consisted of a consolidated net loss of \$934.1 million, adjusted by non-cash charges of \$790.3 million and net cash inflows from the change in net operating assets and liabilities of \$513.1 million. The non-cash charges were primarily comprised of stock-based compensation of \$589.5 million and depreciation and amortization of \$130.1 million. The net cash and cash equivalent inflows from the change in our net operating assets and liabilities was primarily due to a \$662.4 million increase in deferred revenue and a \$67.8 million increase in our developer exchange liability, offset by a \$101.7 million increase in deferred cost of revenue, all of which was primarily due to increased bookings during 2022. The overall increase was partially offset by a \$72.5 million increase in our accounts receivable balance, net due to the timing of receipts and a \$47.9 million decrease in our operating lease liabilities.

#### ***Investing activities***

During the year ended December 31, 2022, cash and cash equivalents used in investing activities was \$441.1 million, primarily consisting of \$426.2 million of cash used in capital expenditures, \$13.4 million of payments made for acquired business (net of cash acquired), and \$1.5 million of payments related to the purchase of intangible assets.

#### ***Financing activities***

During the year ended December 31, 2022, cash and cash equivalents provided by financing activities was \$43.6 million, primarily consisting of proceeds of \$45.8 million from the exercise of stock options and purchase of shares under our employee stock purchase plan, partially offset by payments for software licenses totaling \$1.7 million.

#### **Off-Balance Sheet Arrangements**

As of December 31, 2022, we had \$9.9 million in letters of credit outstanding related to our office facilities in San Mateo, California and data center facilities in Ashburn, Virginia. We did not have any relationships with unconsolidated entities or financial partnerships, such as structured finance or special purpose entities that were established for the purpose of facilitating off-balance sheet arrangements or other purposes.

#### **Critical Accounting Policies and Estimates**

The preparation of these financial statements in accordance with U.S. GAAP requires us to make estimates and assumptions that affect the reported amounts in our consolidated financial statements and related notes. Our estimates are based on various factors that we believe are reasonable. Actual results may differ from these estimates. To the extent that there are differences between our estimates and actual results, our future financial statement presentation, financial condition, results of operations, and cash flows will be affected.

An accounting policy is considered to be critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time the estimate is made, and if different estimates that reasonably could have been used, or changes in the accounting estimates that are reasonably likely to occur periodically, could materially impact the consolidated financial statements.

We believe that the accounting policies discussed below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

Refer to Note 1, "Overview and Summary of Significant Accounting Policies", to our consolidated financial statements included in this Annual Report on Form 10-K for a full description of our revenue recognition and stock-based compensation policies.

## Revenue Recognition

In accordance with ASC 606, *Revenue from Contracts with Customers*, revenue is recognized when control of the service is transferred to the customer. The amount of revenue recognized reflects the consideration that the Company expects to be entitled to in exchange for these services. To achieve the core principle of this standard, the Company determines revenue recognition by:

- identifying the contract, or contracts, with the customer;
- identifying the performance obligations in the contract;
- determining the transaction price;
- allocating the transaction price to performance obligations in the contract; and
- recognizing revenue when, or as, the Company satisfies performance obligations by transferring the promised services.

The Company derives substantially all of its revenue from the sale of virtual items on the Roblox Platform.

### *Roblox Platform*

The Company operates the Roblox Platform as live services that allow users to play and socialize with others for free. Within the experience, however, users can purchase virtual currency ("Robux") to obtain virtual items to enhance their social experience. Proceeds from the sale of Robux are initially recorded in deferred revenue and recognized as revenues as a user purchases and uses virtual items. The Company's identified performance obligation is to provide users with the ability to acquire, use, and hold virtual items on the Roblox Platform over the estimated period of time the virtual items are available to the user or until the virtual items are consumed.

Users can purchase Robux as one-time purchases or through monthly subscriptions via payment processors or through prepaid cards. Payments from users are non-refundable and relate to non-cancellable contracts for a fixed price that specify Company's obligations. Revenue is recorded net of taxes assessed by government authorities that are both imposed on and concurrent with specific revenue transactions between the Company and its users, and estimated chargebacks and refunds.

The satisfaction of Company's performance obligation is dependent on the nature of the virtual item purchased and as a result, the Company categorizes its virtual items as either consumable or durable.

- Consumable virtual items represent items that can be consumed by a specific user action. Common characteristics of consumable virtual items may include items that are no longer displayed on the user's inventory after a short period of time or do not provide the user any continuing benefit following consumption. For the sale of consumable virtual items, the Company recognizes revenue as the items are consumed.
- Durable virtual items represent items which result in a persistent change to a users' character or item set (e.g., virtual hat, pet, or house). These items are generally available to the customer to hold, use, or display for as long as they are on the Roblox Platform. The Company recognizes revenue from the sale of durable virtual items ratably over the estimated period of time the items are available to the user which is estimated as the average lifetime of a paying user.

To separately account for consumable and durable virtual items, the Company specifically identifies each purchase for the majority of virtual items purchased on the Roblox Platform. For the remaining population, the Company estimates the amount of consumable and durable virtual items purchased based on data from specifically identified purchases and the expected behavior of the users within similar experiences. The estimation of consumable and durable virtual items purchased for the population of purchases not specifically identified requires management's judgment as the Company evaluates and estimates the expected behavior of users in the population using information from known purchases in similar experiences.

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The average lifetime of a paying user estimate is calculated based on historical monthly retention data for each user cohort to project future participation on the Roblox Platform. Determining the estimated average lifetime of a paying user requires management's judgment as the Company analyzes the most recent trends in player cohort activity and other qualitative factors. The Company also considers results from prior analyses in determining the estimated average lifetime of a paying user. The Company believes this estimate is the best representation of the average life of the durable virtual items. The estimated paying user life was 28 months, 23 months, and 23 months as of December 31, 2022, 2021, and 2020, respectively.

The Company offers prepaid cards through online and physical retailers, as well as on the Company website. The Company estimates expected breakage by taking into consideration historical patterns of redemption and escheatment laws as applicable.

### **Stock-Based Compensation Expense**

The Company measures and recognizes stock-based compensation expense for all stock-based awards, including stock options, unregistered restricted stock awards ("RSAs"), restricted stock units ("RSUs"), and performance stock units ("PSUs") granted to employees, directors, and non-employees, and stock purchase rights granted under the 2020 ESPP to employees, based on the estimated grant date fair value of the awards. The Company records forfeitures when they occur for all stock-based awards.

The fair value of each stock option and stock purchase right granted is estimated using the Black-Scholes option-pricing model and is recognized as compensation expense on a straight-line basis over the requisite service period of the awards. The Black-Scholes option pricing model requires certain subjective inputs and assumptions, including the fair value of the Company's Class A common stock, the expected term, risk-free interest rates, expected stock price volatility, and expected dividend yield of our Class A common stock. The assumptions used to determine the fair value of the option awards represent management's best estimates. These estimates involve inherent uncertainties and the application of management's judgment. These assumptions and estimates are as follows:

- Fair value of Class A common stock—Prior to the Direct Listing, we estimated the fair value of Class A common stock, as discussed below in the section titled "Common Stock Valuations." After the completion of the Direct listing, the fair value of our Class A common stock is determined based on the NYSE closing price on the date of grant.
- Expected term—The expected term represents the period that stock-based awards are expected to be outstanding. The expected term assumptions are determined based on the vesting terms, estimated exercise behavior, post-vesting cancellations and contractual lives of the awards.
- Risk-free interest rates—The risk-free interest rate is based on the implied yields in effect at the time of the grant of U.S. Treasury notes with terms approximately equal to the expected term of the award.
- Expected stock price volatility—Prior to the Direct Listing, we used the historical volatility of the Class A common stock price of similar publicly-traded peer companies. After the completion of the Direct Listing, we continue to use the historical volatility of the stock price of similar publicly traded peer companies since we have not established sufficient public trading history.
- Expected dividend yield—We utilize a dividend yield of zero, as we have no history or plan of declaring dividends on its common stock.

The fair value of RSUs is estimated based on the fair value of our common stock on the date of grant. Prior to the Direct Listing, we estimated the fair value of Class A common stock, as discussed below in the section titled "Common Stock Valuations." For RSUs granted subsequent to the Direct listing, the fair value of our Class A common stock is determined based on the NYSE closing price on the date of grant.

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### **CEO Long-Term Performance Award**

In February 2021, the Leadership Development and Compensation Committee of the Company's Board of Directors granted the CEO a Long-Term Performance Award ("CEO Long-Term Performance Award"), an RSU award that includes a service and a market condition. The fair value of the CEO Long-Term Performance Award was determined using a Monte Carlo simulation model. The fair value of the common stock underlying the award was determined by the Company's Board of Directors along with management by considering a number of objective and subjective factors. The Company estimated the expected term based on the time period from the valuation date to the end of the performance period. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant for zero-coupon U.S. Treasury notes. The expected volatility is derived from the historical stock volatility of selected peers over a period equivalent to the expected term of the CEO Long-Term Performance Award. The associated stock-based compensation is recorded over the derived service period, using the accelerated attribution method. If the stock price goals are met sooner than the derived service period, the Company will adjust the stock-based compensation expense to reflect the cumulative expense associated with the vested portion of the CEO Long-Term Performance Award. Provided that David Baszucki continues to be the CEO of the Company, stock-based compensation expense is recognized over the derived service period, regardless of whether the stock price goals are achieved.

### **Common Stock Valuations**

Prior to the Direct Listing, due to the absence of a public trading market for our common stock, and in accordance with the American Institute of Certified Public Accountants Accounting and Valuation Guide: Valuation of Privately-Held Company Equity Securities Issued as Compensation, our Board of Directors along with management exercised its reasonable judgment and considered numerous objective and subjective factors to determine the best estimate of fair value of our common stock, including:

- the prices at which we or other holders sold our common and convertible preferred stock to outside investors in arms-length transactions;
- contemporaneous valuations performed by an unrelated third-party valuation firm;
- our operating and financial performance;
- the lack of marketability of our common stock;
- the valuation of comparable companies;
- the industry outlook;
- the likelihood of achieving a liquidity event, such as an initial public offering or a sale of our company given prevailing market conditions; and
- the U.S. and global economic and capital market conditions and outlook.

We determined the fair value of our common stock using the most observable inputs available to us, including income approaches as well as recent sales of our stock. The income approach estimated the value of our business based on the future cash flows we expected to generate discounted to their present value using an appropriate discount rate to reflect the risk of achieving the expected cash flows.

We also considered any secondary transactions involving our capital stock. In our evaluation of those transactions, we considered the facts and circumstances of each transaction to determine the extent to which they represented a fair value exchange. Factors considered include transaction volume, timing, whether the transactions occurred among willing and unrelated parties, and whether the transactions involved investors with access to our financial information.

### **Recent Accounting Pronouncements**

See section "Recent Accounting Pronouncements" within Item 8. Financial Statements and Supplementary Information, Note 1, "Overview and Summary of Significant Accounting Policies", for discussion of recent accounting pronouncements.

## **Item 7A. Quantitative and Qualitative Disclosures About Market Risk**

We are exposed to market risks in the ordinary course of our business. Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily the result of fluctuations in interest rates and foreign currency exchange rates.

### **Foreign Currency Exchange Risk**

The majority of our revenue is generated in U.S. dollars, with revenue generated in Euros, Canadian dollars, Australian dollars, and the British pound primarily comprising the remainder of our revenue. Our expenses are generally denominated in the currencies of the jurisdictions in which we conduct our operations, which are primarily in the U.S., United Kingdom, Canada, Europe, and China. Our results of current and future operations and cash flows are, therefore, subject to fluctuations due to changes in foreign currency exchange rates. However, the impact of foreign currency exchange rates has not been material to our historical operating results. Further, as the impact of foreign currency exchange rates has not been material to our historical operating results, we have not entered into derivative or hedging transactions, but we may do so in the future if our exposure to foreign currency becomes more significant.

Due to fluctuations in exchange rates resulting from the current macroeconomic environment, and in part, strengthening of the U.S. dollar in relation to the Euro and British pound, we have, and may in the future experience negative impacts to our revenue and operating expenses denominated in currencies other than the U.S. dollar.

### **Interest Rate Risk**

Our cash and cash equivalents primarily consist of cash on hand and highly liquid investments in money market instruments. As of December 31, 2022, we had cash and cash equivalents of \$3.0 billion. We do not enter into investments for trading or speculative purposes. Our investment policy and strategy are focused on the preservation of capital and supporting our liquidity requirements. Our money market instruments have very low interest rate risk because of their short-term maturities and an immediate 10% increase or decrease in interest rates would not have a material effect on the fair market value of our portfolio. Further, any such impacts would only be realized if we sold the investments prior to maturity. We therefore do not expect our operating results or cash flows to be materially affected by a sudden change in market interest rates.

In October 2021, we issued \$1.0 billion aggregate principal amount of the 2030 Notes. The 2030 Notes were issued at par and we incurred approximately \$12.5 million in debt issuance costs. Interest on the 2030 Notes is payable semiannually in arrears on May 1 and November 1 of each year, beginning on May 1, 2022, and the entire outstanding principal amount of the 2030 Notes is due at maturity on May 1, 2030. The 2030 Notes have a fixed interest rate; therefore, we have no financial statement risk associated with changes in interest rates with respect to the 2030 Notes. Additionally, we carry the 2030 Notes at face value less unamortized discount and debt issuance cost, and we present the fair value of the 2030 Notes for disclosure purposes only. The fair market value of the 2030 Notes is exposed to interest rate risk. The fair value of our 2030 Notes will fluctuate with movements in interest rates, increasing in periods of declining rates of interest and declining in periods of increasing rates of interest.

### **Inflation Risk**

Inflationary factors, such as increases in overhead costs, may adversely affect our results of operations. We do not believe that inflation has had a material effect on our business, financial condition or results of operations to date. If our costs were to become subject to significant inflationary pressures, we may not be able to fully offset such higher costs through price increases. Our inability or failure to do so could harm our business, financial condition or results of operations. Additionally, increased inflation rates may reduce consumer discretionary spending, which could affect the buying power of our users, developers, and creators and lead to a reduced demand for our Platform.

**Item 8. Consolidated Financial Statements and Supplementary Data**

**ROBLOX CORPORATION  
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## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Roblox Corporation

### Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Roblox Corporation and subsidiaries (the "Company") as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive income (loss), convertible preferred stock and stockholders' equity (deficit), and cash flows, for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 28, 2023, expressed an unqualified opinion on the Company's internal control over financial reporting.

### Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

### Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the Audit and Compliance Committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

**Revenue Recognition** — Refer to Note 1 to the financial statements

#### *Critical Audit Matter Description*

The Company derives substantially all of its revenue from the sale of virtual items on the Roblox platform. The Company's performance obligation when selling virtual items to users is to provide those users with the ability to acquire, use, and hold virtual items on the Roblox platform over the estimated period of time the virtual items are available to the user, which is estimated as the average lifetime of a paying user (for durable virtual items) or until the virtual items are consumed (for consumable virtual items). To separately identify, and account for consumable and durable virtual items, the Company specifically identifies each purchase for the majority of virtual items purchased on the Roblox Platform. For the remaining population, the Company estimates the amount of consumable and durable virtual items purchased based on data from specifically identified purchases and the expected behavior of the users within similar experiences.

Significant judgement is exercised by management when (1) estimating the average lifetime of a paying user ("customer life"), which includes analyzing the most recent trends in player cohort activity (2) estimating the amount of consumable and durable virtual items purchased for the remaining population of purchases that are not specifically identified

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("remaining population allocation"), which includes evaluating and estimating the expected behavior of users in the population using information from known purchases in similar experiences.

Given the complexity of estimating the customer life and the remaining population allocation, auditing these estimates required a high degree of auditor judgement and increased extent of effort when performing audit procedures to evaluate the Company's judgements and conclusions.

*How the Critical Audit Matter Was Addressed in the Audit*

Our audit procedures related to the Company's estimated customer life and remaining population allocation included the following, among others:

- We obtained an understanding of the Company's methodology for developing the estimated customer life and remaining population allocation.
- For the customer life estimate, we (1) tested the accuracy and completeness of the historical monthly retention data for player cohorts, (2) tested the mathematical accuracy of the Company's calculations to project future retention, and (3) assessed the impact of qualitative factors to evaluate management's judgement on future retention utilizing competitor information that is publicly available and most recent historical trends in cohort activity.
- For the remaining population allocation estimate, we (1) tested the underlying data for specifically identified purchases used in management's analysis by selecting a sample of virtual items that were purchased as well as a sample of items from the Roblox Platform and confirming that such items were properly categorized between a consumable or a durable virtual item, (2) tested the mathematical accuracy of the percentage of consumable and durable goods for the specifically identified purchases, (3) compared the composition of the virtual items purchased that were specifically identified to those that were not specifically identified to evaluate if the nature of the goods are similar, and (4) tested that the percentage of consumable and durable virtual items for the specifically identified purchases was applied to the remaining population.

*/s/ DELOITTE & TOUCHE LLP*

San Jose, California  
February 28, 2023

We have served as the Company's auditor since 2019.

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## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Roblox Corporation

### Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Roblox Corporation and subsidiaries (the "Company") as of December 31, 2022, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2022, of the Company and our report dated February 28, 2023, expressed an unqualified opinion on those financial statements.

### Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

### Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ DELOITTE & TOUCHE LLP

San Jose, California  
February 28, 2023

**ROBLOX CORPORATION**  
**CONSOLIDATED BALANCE SHEETS**  
(in thousands, except par values)

	As of December 31,	
	2022	2021
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 2,977,474	\$ 3,004,300
Accounts receivable—net of allowances	379,353	307,349
Prepaid expenses and other current assets	61,641	32,091
Deferred cost of revenue, current portion	420,136	406,025
Total current assets	3,838,604	3,749,765
Property and equipment—net	592,346	271,352
Operating lease right-of-use assets	526,030	221,285
Deferred cost of revenue, long-term	225,132	137,524
Intangible assets, net	54,717	59,666
Goodwill	134,335	118,071
Other assets	4,323	2,933
Total assets	\$ 5,375,487	\$ 4,560,596
<b>Liabilities and Stockholders' equity</b>		
Current liabilities:		
Accounts payable	\$ 71,182	\$ 64,395
Accrued expenses and other current liabilities	236,006	180,769
Developer exchange liability	231,704	163,906
Deferred revenue—current portion	1,941,943	1,758,022
Total current liabilities	2,480,835	2,167,092
Deferred revenue—net of current portion	1,095,291	616,834
Operating lease liabilities	494,590	194,616
Long-term debt, net	988,984	987,723
Other long-term liabilities	10,752	1,408
Total liabilities	5,070,452	3,967,673
Commitments and contingencies (Note 9)		
Stockholders' equity		
Common stock, \$0.0001 par value; 5,000,000 authorized as of December 31, 2022 and December 31, 2021, 604,674 and 585,878 shares issued and outstanding as of December 31, 2022 and December 31, 2021, respectively; Class A common stock—4,935,000 shares authorized as of December 31, 2022 and December 31, 2021, 553,337 and 534,541 shares issued and outstanding as of December 31, 2022 and December 31, 2021, respectively; Class B common stock—65,000 shares authorized as of December 31, 2022 and December 31, 2021, 51,337 shares issued and outstanding as of December 31, 2022 and December 31, 2021	59	58
Additional paid-in capital	2,213,603	1,568,638
Accumulated other comprehensive income	671	62
Accumulated deficit	(1,908,307)	(983,941)
Total Roblox Corporation Stockholders' equity	306,026	584,817
Noncontrolling interests	(991)	8,106
Total Stockholders' equity	305,035	592,923
Total Liabilities and Stockholders' equity	\$ 5,375,487	\$ 4,560,596

The accompanying notes are an integral part of these consolidated financial statements.

**ROBLOX CORPORATION**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
(in thousands, except per share amounts)

	Year Ended December 31,		
	2022	2021	2020
Revenue	\$ 2,225,052	\$ 1,919,181	\$ 923,885
Cost and expenses:			
Cost of revenue <sup>(1)</sup>	547,658	496,870	239,898
Developer exchange fees	623,855	538,321	328,740
Infrastructure and trust & safety	689,081	456,498	264,226
Research and development	873,477	533,207	201,433
General and administrative	297,317	303,020	97,341
Sales and marketing	117,448	86,363	58,384
Total cost and expenses	3,148,836	2,414,279	1,190,022
Loss from operations	(923,784)	(495,098)	(266,137)
Interest income	38,842	92	1,822
Interest expense	(39,903)	(6,998)	—
Other income/(expense), net	(5,744)	(1,796)	(32)
Loss before income taxes	(930,589)	(503,800)	(264,347)
Provision for/(benefit from) income taxes	3,552	(320)	(6,656)
Consolidated net loss	(934,141)	(503,480)	(257,691)
Net loss attributable to the noncontrolling interest	(9,775)	(11,829)	(4,437)
Net loss attributable to common stockholders	\$ (924,366)	\$ (491,651)	\$ (253,254)
Net loss per share attributable to common stockholders, basic and diluted	\$ (1.55)	\$ (0.97)	\$ (1.39)
Weighted-average shares used in computing net loss per share attributable to common stockholders—basic and diluted	595,559	505,858	182,108

(1) Depreciation of servers and infrastructure equipment included in infrastructure and trust & safety.

The accompanying notes are an integral part of these consolidated financial statements.

**ROBLOX CORPORATION**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME/(LOSS)**  
(in thousands)

	Year Ended December 31,		
	2022	2021	2020
Consolidated net loss	\$ (934,141)	\$ (503,480)	\$ (257,691)
Other comprehensive income/(loss), net of tax:			
Foreign currency translation adjustments	1,287	(55)	168
Net change in unrealized gains (losses) on available-for-sale marketable securities	—	—	(33)
Other comprehensive income/(loss), net of tax	1,287	(55)	135
Total comprehensive loss, including noncontrolling interests	(932,854)	(503,535)	(257,556)
Less: net loss attributable to noncontrolling interests	(9,775)	(11,829)	(4,437)
Less: cumulative translation adjustments attributable to noncontrolling interests	678	(27)	84
Other comprehensive loss attributable to noncontrolling interests, net of tax	(9,097)	(11,856)	(4,353)
Total comprehensive loss attributable to common stockholders	\$ (923,757)	\$ (491,679)	\$ (253,203)

The accompanying notes are an integral part of these consolidated financial statements.

**ROBLOX CORPORATION**  
**CONSOLIDATED STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY/(DEFICIT)**  
(in thousands)

	Convertible Preferred Stock		Class A and Class B Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Non-Controlling Interest	Total Stockholders' Equity/(Deficit)
	Shares	Amount	Shares	Amount					
<b>Balance at January 1, 2020</b>	324,304	\$ 187,191	166,768	\$ 17	\$ 101,671	\$ 39	\$ (239,036)	\$ 24,360	\$ (112,949)
Issuance of common stock upon exercise of stock options and settlement of RSUs	—	—	20,871	2	15,156	—	—	—	15,158
Issuance of common stock from asset purchase	—	—	80	—	2,854	—	—	—	2,854
Issuance of common stock from acquisition of businesses	—	—	933	—	35,203	—	—	—	35,203
Issuance of unregistered restricted stock awards granted in conjunction with a business combination	—	—	388	—	5,493	—	—	—	5,493
Issuance of Series G preferred stock	23,645	149,669	—	—	—	—	—	—	—
Issuance of Series D-1 warrants upon exercise of warrants for cash <sup>(1)</sup>	1,573	8,225	—	—	—	—	—	—	—
Conversion of Series A preferred stock to common stock	(11,642)	(233)	11,642	1	232	—	—	—	233
Conversion of Series D preferred stock to common stock	(645)	(25)	645	—	25	—	—	—	25
Stock-based compensation	—	—	—	—	79,158	—	—	—	79,158
Other	—	—	—	—	—	(33)	—	—	(33)
Cumulative translation adjustments	—	—	—	—	—	84	—	84	168
Consolidated net loss	—	—	—	—	—	—	(253,254)	(4,437)	(257,691)
<b>Balance at December 31, 2020</b>	337,235	\$ 344,827	201,327	\$ 20	\$ 239,792	\$ 90	\$ (492,290)	\$ 20,007	\$ (232,381)
Issuance of common stock upon exercises of stock options	—	—	33,372	3	65,284	—	—	(45)	65,242
Issuance of unregistered restricted stock awards in connection with the acquisition of a business	—	—	487	—	31,274	—	—	—	31,274
Issuance of common stock under Employee Stock Purchase Plan	—	—	191	—	11,268	—	—	—	11,268
Issuance of Series H preferred stock, net	11,889	534,286	—	—	—	—	—	—	—
Conversion of convertible preferred stock to common stock in connection with the direct listing	(349,124)	(879,113)	349,124	35	879,078	—	—	—	879,113
Stock-based compensation	—	—	—	—	341,942	—	—	—	341,942
Vesting of restricted stock units	—	—	1,376	—	—	—	—	—	—
Other	—	—	1	—	—	—	—	—	—
Cumulative translation adjustments	—	—	—	—	—	(28)	—	(27)	(55)
Consolidated net loss	—	—	—	—	—	—	(491,651)	(11,829)	(503,480)
<b>Balance at December 31, 2021</b>	—	\$ —	585,878	\$ 58	\$ 1,568,638	\$ 62	\$ (983,941)	\$ 8,106	\$ 592,923
Issuance of common stock upon exercise of stock options	—	—	9,615	1	22,777	—	—	—	22,778
Issuance of unregistered restricted stock awards in connection with the acquisition of a business	—	—	385	—	10,138	—	—	—	10,138
Issuance of common stock under Employee Stock Purchase Plan	—	—	575	—	22,702	—	—	—	22,702
Vesting of restricted stock units	—	—	8,169	—	—	—	—	—	—
Withholding taxes related to net share settlement of restricted stock units	—	—	(3)	—	(150)	—	—	—	(150)
Stock-based compensation	—	—	—	—	589,498	—	—	—	589,498
Other	—	—	55	—	—	—	—	—	—
Cumulative translation adjustments	—	—	—	—	—	609	—	678	1,287
Consolidated net loss	—	—	—	—	—	—	(924,366)	(9,775)	(934,141)
<b>Balance at December 31, 2022</b>	—	\$ —	604,674	\$ 59	\$ 2,213,603	\$ 671	\$ (1,908,307)	\$ (991)	\$ 305,035

(1) Exercise of warrants for gross proceeds of \$0.1 million and a reclassification of warrant liability fair market value of \$8.1 million as of the exercise date.

The accompanying notes are an integral part of these consolidated financial statements.

**ROBLOX CORPORATION**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(in thousands)

	Year Ended December 31,		
	2022	2021	2020
<b>Cash flows from operating activities:</b>			
Consolidated net loss	\$ (934,141)	\$ (503,480)	\$ (257,691)
Adjustments to reconcile net loss including noncontrolling interests to net cash, cash equivalents, and restricted cash provided by operations:			
Depreciation and amortization	130,083	75,622	43,808
Stock-based compensation expense	589,498	341,942	79,158
Change in fair value of warrants	—	—	1,890
Operating lease non-cash expense	69,100	43,794	—
Other non-cash charges/(credits)	361	680	1,139
Amortization of debt issuance costs	1,261	216	—
Changes in operating assets and liabilities, net of effect of acquisitions:			
Accounts receivable	(72,479)	(61,044)	(156,865)
Accounts payable	10,302	23,369	4,488
Prepaid expenses and other current assets	(33,769)	(13,593)	(4,826)
Other assets	(1,221)	(1,367)	1,373
Developer exchange liability	67,798	82,994	49,905
Accrued expenses and other current liabilities	19,560	58,809	30,906
Other long-term liability	10,159	(1,189)	(4,460)
Operating lease liabilities	(47,875)	(34,743)	—
Deferred revenue	662,378	819,927	965,919
Deferred cost of revenue	(101,719)	(172,828)	(230,404)
Net cash, cash equivalents, and restricted cash provided by operating activities	369,296	659,109	524,340
<b>Cash flows from investing activities:</b>			
Acquisition of property and equipment	(426,163)	(93,273)	(104,153)
Payments related to business combination, net of cash acquired	(13,388)	(45,692)	(40,919)
Purchases of short-term investments	—	—	(5,991)
Maturities of short-term investments	—	—	63,000
Purchases of intangible assets	(1,500)	(7,856)	(8,967)
Net cash, cash equivalents, and restricted cash used in investing activities	(441,051)	(146,821)	(97,030)
<b>Cash flows from financing activities:</b>			
Proceeds from issuance of preferred stock for warrant exercises	—	—	147
Proceeds from issuance of common stock	45,752	76,177	15,156
Payment of term license related obligations	(1,656)	—	—
Payment of withholding taxes related to net share settlement of restricted stock units	(150)	—	—
Net proceeds from issuance of preferred stock	—	534,286	149,669
Proceeds from 2030 Notes	—	990,000	—
Payment of debt issuance costs	(154)	(2,339)	—
Payments related to business combination, after acquisition date	(150)	—	—
Net cash, cash equivalents, and restricted cash provided by financing activities	43,642	1,598,124	164,972
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	1,287	(55)	168
Net increase/(decrease) in cash, cash equivalents, and restricted cash	(26,826)	2,110,357	592,450
Cash, cash equivalents, and restricted cash			
Beginning of year	3,004,300	893,943	301,493
End of year	\$ 2,977,474	\$ 3,004,300	\$ 893,943
Supplemental disclosure of cash flow information:			
Cash paid for interest	\$ 38,965	—	—
Cash paid for income taxes	\$ 953	—	—
Supplemental disclosure of noncash investing and financing activities:			
Property and equipment additions in accounts payable and accrued expenses	\$ 57,199	\$ 50,388	\$ 13,990
Fair value of common stock and unregistered restricted units issued as consideration for business combination	\$ 10,138	\$ 31,274	\$ 40,696
Fair value of common stock issued in exchange for intangible asset purchase	—	—	\$ 2,854
Conversion of convertible preferred stock to common stock upon direct listing	—	\$ 879,113	—
Unpaid debt issuance costs	—	\$ 154	—

The accompanying notes are an integral part of these consolidated financial statements.

**ROBLOX CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**1. Overview and Summary of Significant Accounting Policies**

**Organization and Description of Business**—Roblox Corporation (the “Company” or “Roblox”) was incorporated under the laws of the state of Delaware in March 2004. The Company operates a human co-experience platform (the “Roblox Platform” or “Platform”) where users interact with each other to explore and create immersive, user-generated, 3D experiences. Users are free to immerse themselves in experiences on the Roblox Platform and can acquire experience-specific enhancements or avatar items by using purchased Robux, our virtual currency. Any user can be a developer or creator on the Platform using Roblox Studio, a set of free software tools. Developers build the experiences that are published on Roblox and can earn Robux through microtransactions in their experiences, through engagement-based payouts, and by selling virtual items in the Roblox virtual economy.

**Direct Listing**—On March 10, 2021, the Company completed a direct listing of its Class A common stock (“Direct Listing”) on the New York Stock Exchange (“NYSE”). The Company incurred fees primarily related to financial advisory service, audit and legal expenses, in connection with the Direct Listing and recorded general and administrative expenses of \$50.7 million during the first quarter of the fiscal year ended March 31, 2021. Immediately prior to the Direct Listing, all shares of outstanding convertible preferred stock were converted into an equivalent number of shares of Class A common stock.

**Basis of Presentation and Summary of Significant Accounting Policies**

**Fiscal Year**—The Company’s fiscal year ends on December 31. For example, references to fiscal 2022, 2021, and 2020 refer to the fiscal year ending December 31, 2022, December 31, 2021, and December 31, 2020, respectively.

**Basis of Presentation**—The accompanying consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States (“U.S. GAAP”), and applicable rules and regulations of the Securities and Exchange Commission (“SEC”).

**Principles of Consolidation**—The consolidated financial statements include the accounts of the Company and subsidiaries over which the Company has control. All intercompany transactions and balances have been eliminated. The consolidated financial statements include 100% of the accounts of wholly owned and majority owned subsidiaries, and the ownership interest of minority investors is recorded as noncontrolling interest.

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**Use of Estimates**—The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Significant estimates and assumptions reflected in the consolidated financial statements include, but are not limited to, the estimated period of time the virtual items are available to the user, which is estimated as the average lifetime of a paying user, and the estimated amount of consumable and durable virtual items purchased for which the Company lacks specific information that we use for revenue recognition, useful lives of property and equipment and intangible assets, fair value of assets and liabilities acquired through acquisitions, accrued liabilities (including accrued developer exchange fees), contingent liabilities, valuation of deferred tax assets and liabilities, stock-based compensation, the discount rate used in measuring our operating lease liabilities, the carrying value of operating lease right-of-use assets, and evaluation of recoverability of goodwill, intangible assets and long-lived assets. Management believes that the estimates, and judgments upon which they rely, are reasonable based upon information available to them at the time that these estimates and judgments are made. Actual results could differ from those estimates and any such differences may be material to the consolidated financial statements. To the extent that there are material differences between these estimates and actual results, the Company's consolidated financial statements will be affected.

The COVID-19 pandemic has created, and may continue to create, significant uncertainty in macroeconomic conditions. The full extent to which the COVID-19 pandemic or recovery from the COVID-19 pandemic will directly or indirectly impact the global economy, the lasting social effects, and impact on the Company's business, results of operations, and financial condition are highly uncertain and cannot be accurately predicted. As events continue to evolve and additional information becomes available, the Company's estimates and assumptions may change materially in future periods.

**Foreign Currency Transactions**—The functional currency of the Company's international subsidiaries is the U.S. dollar, with the exception of a Chinese subsidiary wholly owned by Roblox China Holding Corp., as discussed in Note 14, "Joint Venture" to the notes to these consolidated financial statements. We translate the financial statements of our non-U.S. dollar functional subsidiary to U.S. dollars using the period-end exchange rate for assets and liabilities and the average exchange rate for the period for revenues and expenses. The effects of foreign currency translation are included in stockholders' equity/(deficit) as a component of accumulated other comprehensive income and periodic movements are summarized as a line item in the consolidated statements of comprehensive income.

We reflect foreign exchange transaction gains and losses resulting from the conversion of the transaction currency to the functional currency, which includes gains and losses from the remeasurement of assets and liabilities, as a component of other income (expense), net.

**Stock Split**—On January 31, 2020, the Company's Board of Directors approved an amendment to its certificate of incorporation to effect a split of shares of the issued and outstanding common stock and convertible preferred stock at a 2-for-1 ratio. The stock split was approved by the Company's stockholders and effected on January 31, 2020.

All issued and outstanding shares of common stock and convertible preferred stock, dividend rates, conversion rates, options to purchase common stock, exercise prices, and the related per-share amounts contained in these consolidated financial statements have been adjusted to reflect this stock split for all periods presented.

**Segments**—The Company operates as a single operating and reportable segment, which is at the consolidated entity level. The chief operating decision maker of the Company is its chief executive officer ("CEO"), who makes resource allocation decisions and assesses performance based on financial information presented on a consolidated basis.

## **Revenue Recognition**

### *Revenue Recognition Policy*

In accordance with ASC 606, *Revenue from Contracts with Customers*, revenue is recognized when control of the service is transferred to the customer. The amount of revenue recognized reflects the consideration that the Company expects to be entitled to in exchange for these services. To achieve the core principle of this standard, the Company determines revenue recognition by:

- identifying the contract, or contracts, with the customer;
  - identifying the performance obligations in the contract;
  - determining the transaction price;
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- allocating the transaction price to performance obligations in the contract; and
- recognizing revenue when, or as, the Company satisfies performance obligations by transferring the promised services.

The Company derives substantially all of its revenue from the sale of virtual items on the Roblox Platform.

#### *Roblox Platform*

The Company operates the Roblox Platform as live services that allow users to play and socialize with others for free. Within the experience, however, users can purchase virtual currency ("Robux") to obtain virtual items to enhance their social experience. Proceeds from the sale of Robux are initially recorded in deferred revenue and recognized as revenues as a user purchases and uses virtual items. The Company's identified performance obligation is to provide users with the ability to acquire, use, and hold virtual items on the Roblox Platform over the estimated period of time the virtual items are available to the user or until the virtual items are consumed.

Users can purchase Robux as one-time purchases or through monthly subscriptions via payment processors or through prepaid cards. Payments from users are non-refundable and relate to non-cancellable contracts for a fixed price that specify Company's obligations. Revenue is recorded net of taxes assessed by government authorities that are both imposed on and concurrent with specific revenue transactions between the Company and its users, and estimated chargebacks and refunds.

The satisfaction of Company's performance obligation is dependent on the nature of the virtual item purchased and as a result, the Company categorizes its virtual items as either consumable or durable.

- Consumable virtual items represent items that can be consumed by a specific user action. Common characteristics of consumable virtual items may include items that are no longer displayed on the user's inventory after a short period of time or do not provide the user any continuing benefit following consumption. For the sale of consumable virtual items, the Company recognizes revenue as the items are consumed.
- Durable virtual items represent items which result in a persistent change to a users' character or item set (e.g., virtual hat, pet, or house). These items are generally available to the customer to hold, use, or display for as long as they are on the Roblox Platform. The Company recognizes revenue from the sale of durable virtual items ratably over the estimated period of time the items are available to the user which is estimated as the average lifetime of a paying user.

To separately account for consumable and durable virtual items, the Company specifically identifies each purchase for the majority of virtual items purchased on the Roblox Platform. For the remaining population, the Company estimates the amount of consumable and durable virtual items purchased based on data from specifically identified purchases and the expected behavior of the users within similar experiences. The estimation of consumable and durable virtual items purchased for the population of purchases not specifically identified requires management's judgment as the Company evaluates and estimates the expected behavior of users in the population using information from known purchases in similar experiences.

The average lifetime of a paying user estimate is calculated based on historical monthly retention data for each user cohort to project future participation on the Roblox Platform. Determining the estimated average lifetime of a paying user requires management's judgment as the Company analyzes the most recent trends in player cohort activity and other qualitative factors. The Company also considers results from prior analyses in determining the estimated average lifetime of a paying user. The Company believes this estimate is the best representation of the average life of the durable virtual items. The estimated paying user life was 28 months, 23 months, and 23 months as of December 31, 2022, 2021, and 2020, respectively.

As part of the process above, in the first quarter of 2022, the Company updated its estimated paying user life to 25 months, which was subsequently updated again to 28 months in the third quarter of 2022. Based on the carrying amount of deferred revenue and deferred cost of revenue as of December 31, 2021, these changes in estimates resulted in a decrease in revenue of \$344.9 million and a decrease in cost of revenue of \$ 79.3 million during the year ended December 31, 2022.

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The Company offers prepaid cards through online and physical retailers, as well as on the Company website. The Company estimates expected breakage by taking into consideration historical patterns of redemption and escheatment laws as applicable.

#### *Principal Agent Considerations*

The Company evaluates the sales of Robux via third-party payment processors to determine whether its revenues should be reported gross or net of fees either retained by the payment processor or paid to the developers and creators ("Developer Exchange Fees"). The Company is the principal in the transaction with the end user as a result of controlling, hosting, and integrating the delivery of the virtual items to the end user. The Company records revenue gross as a principal and records fees paid to payment processors as a component of cost of revenue and fees paid to developers and creators as a component of developer exchange fees expense.

#### *Other Revenue*

Other revenue primarily consists of revenue from advertising, licenses, and royalties. The Company recognizes revenue based on the performance obligations of the underlying agreements, in an amount that reflects the consideration that the Company expects to be entitled to.

**Cost of Revenue**—Cost of revenue primarily consists of payment processing fees charged by various distribution channels.

**Deferred Cost of Revenue**—The Company defers contract costs that are direct and incremental to obtaining user contracts (i.e., sales of Robux). Deferred cost of revenue consists of payment processing fees charged by third-party payment processors. Payment processing fees are amortized over the estimated period of time the virtual items are available to the user on the Roblox Platform (based on the nature of the virtual item as either consumable or durable) in proportion to the revenue recognized. The Company classifies deferred cost of revenue as short-term or long-term based on when the Company expects to recognize the expense. Short-term and long-term deferred cost of revenue are included on the Company's consolidated balance sheets. Deferred cost of revenue is periodically reviewed for impairment.

**Concentration of Credit Risk and Significant Customers**—Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents and accounts receivables. Cash and cash equivalents are deposited with high quality financial institutions and may, at times, exceed federally insured limits. Management believes that the financial institutions that hold the Company's deposits are financially creditworthy and, accordingly, minimal credit risk exists with respect to those balances. Generally, these deposits may be redeemed upon demand and, therefore, bear minimal interest rate risk.

The Company uses various distribution channels to collect and remit payments from users. As of December 31, 2022 and 2021, one distribution channel accounted for 37% and 35% of our accounts receivable, respectively, while a second distribution channel accounted for 19% of our accounts receivable as of both periods.

For the years ended December 31, 2022, 2021, and 2020, one distribution channel processed 32%, 35%, and 35% of our overall revenue transactions, respectively, and a second distribution channel processed 18%, 19%, and 19% of our overall revenue transactions, respectively.

**Fair Value Hierarchy**—Assets and liabilities recorded at fair value in the consolidated financial statements are categorized based upon the level of judgment associated with the inputs used to measure their fair value. Hierarchical levels, which are directly related to the amount of subjectivity, associated with the inputs to the valuation of these assets or liabilities are as follows:

**Level 1**—Inputs that are unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date.

**Level 2**—Inputs (other than quoted prices included in Level 1) that are either directly or indirectly observable for the asset or liability through correlation with market data at the measurement date and for the duration of the instrument's anticipated life.

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**Level 3**—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities and which reflect management’s best estimate of what market participants would use in pricing the asset or liability at the measurement date. Consideration is given to the risk inherent in the valuation technique and the risk inherent in the inputs to the model.

In determining fair value, the Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible as well as considers counterparty credit risk in its assessment of fair value.

**Cash, Cash Equivalents and Restricted Cash**—Cash and cash equivalents primarily consisted of cash in hand and money market instruments with maturities of 90 days or less from the date of purchase.

We had no restricted cash balances as of December 31, 2022, and 2021.

**Accounts Receivable and Related Allowance**—Accounts receivable represent amounts due to us based on contractual obligations with our customers. Payments made by the Company’s users are collected by payment processors and remitted to the Company generally within 30 days of invoicing. The Company maintains allowances for potential credit losses when deemed necessary. The Company has not experienced any material credit losses to date. In cases where the Company is aware of circumstances that may impair a specific customer’s ability to meet its financial obligations, it records a specific allowance as a reduction to the accounts receivable balance to reduce it to its net realizable value. In addition, the Company holds a reserve for chargebacks and refunds based on historical data and current trends and projections. Specific allowances, chargeback, and refund reserves have not been material for any of the periods presented.

**Property and Equipment—Net**—Property and equipment are recorded at historical cost less accumulated depreciation and amortization. Depreciation and amortization are recorded on a straight line basis over the estimated useful lives of the respective assets. Repair and maintenance costs are expensed as incurred. The estimated useful life for each asset category is as follows:

<b>Property and Equipment</b>	<b>Estimated Useful Life</b>
Servers and related equipment	5 years
Computer hardware and software	2 - 5 years
Furniture and fixtures	2 years
Leasehold improvements	Shorter of 10 years or remaining lease term

**Goodwill and Intangible Assets**—Goodwill represents the excess of the purchase price over the fair value of net assets acquired in a business combination and is allocated to reporting units expected to benefit from the business combination. Goodwill is not amortized but rather tested for impairment annually in the fourth quarter, or more frequently if events or changes in circumstances indicate that goodwill may be impaired. When conducting our annual goodwill impairment assessment, we perform a quantitative evaluation by comparing the estimated fair value of our single reporting unit, determined using the Company’s market capitalization as of the testing date, to its carrying value. Goodwill impairment is recognized when the quantitative assessment results in the carrying value exceeding the fair value, in which case an impairment charge is recorded to the extent the carrying value exceeds the fair value. There were no impairment charges to goodwill during any of the periods presented.

Intangible assets with finite lives are carried at cost, less accumulated amortization. Intangible assets with finite lives are generally amortized on a straight-line basis over the estimated useful life of the respective asset, generally up to five years.

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**Business Combinations and Asset Acquisitions** —To determine whether a transaction is accounted for as an asset acquisition or business combination, the Company applies a screen test to evaluate if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets. If the screen test does not result in substantially all of the fair value concentrated in a single identifiable asset or group of similar identifiable assets, the Company performs a second test to evaluate whether the assets and activities transferred include inputs and substantive processes that together, significantly contribute to the ability to create outputs, which would constitute a business. If the result of the second test indicates that the acquired assets and activities constitute a business, the Company accounts for the transaction as a business combination.

For business combinations, the purchase consideration is allocated to the tangible assets acquired, liabilities assumed, and intangible assets acquired based on their respective estimated fair values. The excess of the fair value of purchase consideration over their fair values is recorded as goodwill. The Company's estimates of fair value are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable, and as a result, actual results may differ from estimates. As a result, during the measurement period, which may be up to one year following the acquisition date, if new information is obtained about facts and circumstances that existed as of the acquisition date, the Company may record adjustments to the fair value of these assets and liabilities, with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded within the accompanying consolidated statements of operations.

The Company accounts for a transaction as an asset acquisition when substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets, or otherwise does not meet the definition of a business. Asset acquisition-related costs are capitalized as part of the asset or assets acquired.

**Software Development Costs**—The Company incurs costs related to developing the Roblox Platform and related support systems. The Company capitalizes development costs when preliminary development efforts are successfully completed, management has authorized and committed project funding, and it is probable that the project will be completed and the software will be used as intended. Development costs meeting the Company's capitalization criteria were not material during the periods presented.

**Impairment of Long-Lived Assets**—The Company periodically evaluates the carrying value of long-lived assets to be held and used when indicators of impairment exist. The carrying value of a long-lived asset to be held and used is considered impaired when the estimated separately identifiable undiscounted cash flows expected to result from the use of the asset and its eventual disposition are less than the carrying value of the asset. In that event, an impairment loss is recognized based on the amount by which the carrying value exceeds the fair value of the long-lived asset.

Significant judgment is required to estimate the amount and timing of future cash flows and the relative risk of achieving those cash flows. Assumptions and estimates about future values and remaining useful lives are complex and often subjective. They can be affected by a variety of factors, including external factors such as industry and economic trends, and internal factors such as changes in the Company's business strategy and internal forecasts.

There were no impairment charges of long-lived assets recorded during any of the periods presented.

**Developer Exchange Fees Expense**—The Company has established an incentive program for developers and creators to build and operate virtual worlds within the Roblox environment. Developers and creators may charge other users virtual currency to participate in their world. Under certain conditions as outlined in the Developer Exchange Program agreement with developers and creators, and in compliance with applicable law, these developers and creators can receive a cash payout based on the amount of accumulated earned Robux. The Company recognizes the expense as Robux are earned by qualified developers.

**Infrastructure and Trust & Safety Expense**—Infrastructure and trust & safety expense consists primarily of expenses related to the operation of our data centers and technical infrastructure in order to deliver our Platform to our users and are expensed as incurred. Infrastructure expenses also include personnel costs and allocated overhead for employees and team members whose primary responsibilities relate to supporting our infrastructure and trust & safety initiatives.

**Research and Development Cost**— Research and development costs consist primarily of personnel costs and allocated overhead and are expensed as incurred.

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**Stock-Based Compensation Expense**—The Company measures and recognizes stock-based compensation expense for all stock-based awards, including stock options, unregistered restricted stock awards (“RSAs”), restricted stock units (“RSUs”) and performance stock units (“PSUs”) granted to employees, directors, and non-employees, and stock purchase rights granted under the 2020 ESPP to employees, based on the estimated grant date fair value of the awards.

The fair value of each stock option and stock purchase right granted is estimated using the Black-Scholes option-pricing model and is recognized as compensation expense on a straight-line basis over the requisite service period of the awards. The Black-Scholes option pricing model requires certain subjective inputs and assumptions, including the fair value of the Company’s Class A common stock, the expected term, risk-free interest rates, expected stock price volatility, and expected dividend yield of our Class A common stock. The assumptions used to determine the fair value of the option awards represent management’s best estimates. These estimates involve inherent uncertainties and the application of management’s judgment. These assumptions and estimates are as follows:

- Fair value of Class A common stock— Prior to the Direct Listing, the fair value of the shares of Class A common stock underlying the stock options and RSUs has historically been determined by the Company’s Board of Directors along with management as there was no public market for the underlying common stock. The Company’s Board of Directors along with management determined the fair value of the Company’s common stock by considering a number of objective and subjective factors including: contemporaneous third-party valuations of its common stock, the valuation of comparable companies, sales of the Company’s common and convertible preferred stock to outside investors in arms-length transactions, the Company’s operating and financial performance, the lack of marketability, and the general and industry specific economic outlook, amongst other factors. After the completion of the Direct listing, the fair value of the Company’s Class A common stock is determined based on the NYSE closing price on the date of grant.
- Expected term—The expected term represents the period stock-based awards are expected to be outstanding. The expected term assumptions are determined based on the vesting terms, estimated exercise behavior, post-vesting cancellations and contractual lives of the awards.
- Risk-free interest rates—The risk-free interest rate is based on the implied yields in effect at the time of the grant of U.S. Treasury notes with terms approximately equal to the expected term of the award.
- Expected stock price volatility— Prior to the Direct Listing, the Company used the historical volatility of the Class A common stock price of similar publicly-traded peer companies. After the completion of the Direct Listing, the Company continues to use the historical volatility of the stock price of similar publicly traded peer companies since it has not established sufficient public trading history.
- Expected dividend yield—The Company utilizes a dividend yield of zero, as it has no history or plan of declaring dividends on its common stock.

RSUs granted by the Company prior to March 2021 vest upon the satisfaction of both a service-based vesting condition, which is typically four years, and a liquidity event-related performance vesting condition. The liquidity event-related performance vesting condition was satisfied on March 2, 2021 (the “Effective Date”) and the Company recorded a cumulative stock-based compensation expense as of the Direct Listing date for those RSUs for which the service-based vesting condition has been satisfied. Stock-based compensation related to the remaining service-based period after the liquidity event-related performance vesting condition was satisfied is recorded over the remaining requisite service period using the accelerated attribution method. For RSUs granted subsequent to the Direct Listing, we recognize stock-based compensation expense based on grant date fair value on a straight-line basis over the requisite service period for the entire award. The grant date fair value of our Class A common stock associated with our RSUs granted subsequent to the Direct Listing is determined based on the NYSE closing price on the date of grant.

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In February 2021, the Leadership Development and Compensation Committee of the Company's Board of Directors granted the CEO a Long-Term Performance Award ("CEO Long-Term Performance Award"), an RSU award that includes a service and a market condition. The fair value of the CEO Long-Term Performance Award was determined using a Monte Carlo simulation model. The fair value of the common stock underlying the award was determined by the Company's Board of Directors along with management by considering a number of objective and subjective factors. The Company estimated the expected term based on the time period from the valuation date to the end of the performance period. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant for zero-coupon U.S. Treasury notes. The expected volatility is derived from the historical stock volatility of selected peers over a period equivalent to the expected term of the CEO Long-Term Performance Award. The associated stock-based compensation is recorded over the derived service period, using the accelerated attribution method. If the stock price goals are met sooner than the derived service period, the Company will adjust the stock-based compensation expense to reflect the cumulative expense associated with the vested portion of the CEO Long-Term Performance Award. Provided that David Baszucki continues to be the CEO of the Company, stock-based compensation expense is recognized over the derived service period, regardless of whether the stock price goals are achieved.

The Company records forfeitures when they occur for all stock-based awards.

**Advertising Expense**—Costs for advertising are primarily expensed as incurred and are included in sales and marketing expense in our consolidated statement of operations. Advertising costs totaled \$36.2 million, \$26.8 million, and \$25.7 million for the years ended December 31, 2022, 2021, and 2020 respectively.

**Basic and Diluted Net Loss Per Common Share**—For the year ended December 31, 2020, basic and diluted net loss per share attributable to common stockholders is computed in conformity with the two-class method required for participating securities. The Company considers all series of its convertible preferred stock to be participating securities as the holders of such stock have the right to receive nonforfeitable dividends on a pari passu basis in the event that a dividend is paid on common stock. Under the two-class method, the net loss attributable to common stockholders is not allocated to the convertible preferred stock as the preferred stockholders do not have a contractual obligation to share in the Company's losses.

For all years presented, basic net loss per share is computed by dividing net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period. Diluted net loss per share is computed by giving effect to all potentially dilutive common stock equivalents to the extent they are dilutive. For purposes of this calculation, convertible preferred stock, stock options, RSAs, convertible preferred stock warrants, and common stock warrants, as applicable, are considered to be common stock equivalents but have been excluded from the calculation of diluted net loss per share attributable to common stockholders as their effect is anti-dilutive for all periods presented.

**Income Taxes**—The Company accounts for income taxes using the asset and liability method. Deferred income taxes are recognized by applying enacted statutory tax rates applicable to future years to differences between the consolidated financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the statement of operations in the period that includes the enactment date. The measurement of deferred tax assets is reduced, if necessary, by a valuation allowance for any tax benefit for which the future realization is uncertain.

The tax effects of a position are recognized only if it is more likely than not to be sustained based solely on its technical merits as of the reporting date. The Company considers many factors when evaluating and estimating its tax positions and tax benefits, which may require periodic adjustments.

**Leases**—Effective January 1, 2021, the Company adopted Accounting Standards Update ("ASU") No. 2016-02, "*Leases (Topic 842)*" along with all subsequent ASU clarifications and improvements that are applicable to the Company on January 1, 2021 utilizing the modified retrospective transition method, which requires a cumulative-effect adjustment, if any, to the opening balance of retained earnings to be recognized on the date of adoption with prior periods not restated.

The Company leases facilities under non-cancelable operating lease agreements. These leases have varying terms up to 12 years and contain leasehold improvement incentives, rent holidays and escalation clauses. In addition, some of these leases have renewal options for up to five years after expiration of the initial term. The Company determines if an arrangement contains a lease at inception. The Company determines if a contract contains a lease based on whether we have the right to obtain substantially all of the economic benefits from the use of an identified asset and whether we have the right to direct the use of an identified asset in exchange for consideration.

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Operating lease right-of-use (“ROU”) assets represent our right to use an underlying asset for the lease term. Operating lease liabilities represent our obligation to make lease payments arising from the lease at the commencement date and are recognized based on the present value of lease payments over the lease term at the lease commencement date. Operating lease ROU assets are recognized as the lease liability, adjusted for lease incentives received, initial direct costs and prepayments made.

In determining the present value of lease payments, the Company discounts future lease payments using its incremental borrowing rate (“IBR”) since the implicit rate in our various leases is unknown. The IBR represents the rate of interest the Company would have to pay to borrow on a collateralized basis over a similar term at an amount equal to the lease payments in a similar economic environment. The Company utilizes a market-based approach to estimate the IBR, which requires significant judgment. The Company primarily considers the current economic environment, lease term and currency in which the lease is denominated, as well as (i) yields on corporate bond with a credit rating similar to the Company; (ii) yields on our outstanding unsecured debt; and (iii) indicative pricing on both secured and unsecured debt received from potential lenders (if any). Certain lease agreements include options to renew or early terminate the lease, and we include such extension periods when it is reasonably certain that they will be exercised and include such periods beyond the early termination date when it is reasonably certain the early terminations will not be exercised.

Lease expense is recognized on a straight-line basis over the lease term.

Variable lease payments are expensed when the underlying uncertainty is resolved, which is generally when the obligation for those costs are incurred and are excluded from the measurement of the right-of-use assets and lease liabilities. Variable lease payments primarily include common-area maintenance, utilities, taxes or other operating costs, which are generally based on a percentage of actual expenses incurred or a fluctuating rate which is unknown at the inception of the contract.

Leases with an initial term of 12 months or less (“short-term leases”) are not recognized on the balance sheet. The Company recognizes lease expense for short-term leases on a straight-line basis over the lease term. The Company does not account for lease components (e.g., fixed payments including rent) separately from the non-lease components (e.g., common-area maintenance costs).

For the year ended December 31, 2020, rent expense totaled \$42.9 million.

### ***Recent Accounting Pronouncements***

#### **Accounting Pronouncements Recently Adopted**

In June 2016, the FASB issued ASU 2016-13, “*Financial Instruments-Credit Losses, Topic 326: Measurement of Credit Losses on Financial Instruments*,” which requires a financial asset measured at amortized cost basis to be presented at the net amount expected to be collected, with further clarifications made more recently regarding the treatment of accrued interest, transfers between classifications for loans and debt securities, recoveries, and the option to irrevocably elect the fair value option (on an instrument-by-instrument basis) for eligible financial assets at amortized costs. The new standard requires that an entity measure and recognize expected credit losses for financial assets held at amortized cost and replaces the incurred loss impairment methodology in prior U.S. GAAP with a methodology that requires consideration of a broader range of information to estimate credit losses. The Company adopted the guidance during the quarter ended September 30, 2021 on a modified retrospective basis as of January 1, 2021. The adoption of this standard did not result in any cumulative effect adjustment on the Company’s condensed consolidated financial statements upon adoption as of January 1, 2021.

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In February 2016, the FASB issued ASU No. 2016-02, "*Leases (Topic 842)*", which amends the existing accounting standards for leases. The new standard requires lessees to record an ROU asset and a corresponding lease liability on the balance sheet (with the exception of short-term leases). For lessees, leases will continue to be classified as either operating or financing in the income statement. The Company adopted the guidance on January 1, 2021 utilizing the modified retrospective transition method through a cumulative-effect adjustment at the beginning of the first quarter of 2021. The Company elected the package of practical expedients permitted under the transition guidance, which allowed the Company to carryforward its historical lease classification, assessment on whether a contract was or contains a lease, and initial direct costs for leases that existed prior to January 1, 2021. The Company also elected to combine its lease and non-lease components and not recognize ROU assets and lease liabilities for leases with an initial term of 12 months or less. The Company did not elect to apply the hindsight practical expedient when determining lease term and assessing impairment of ROU assets.

In August 2018, the FASB issued ASU No. 2018-15, "*Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract*," which aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The new standard requires capitalized costs to be amortized on a straight-line basis generally over the term of the arrangement, and the financial statement presentation for these capitalized costs would be the same as that of the fees related to the hosting arrangements. This new guidance was effective for the Company beginning on January 1, 2021 and did not have a material impact on the Company's consolidated financial statements.

In December 2019, the FASB issued ASU No. 2019-12, "*Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*". The purpose of the ASU was to reduce complexity in the accounting standards for income taxes by removing certain exceptions as well as clarifying certain allocations. This update removed the exception to the incremental approach for intra period tax allocation when there is a loss from continuing operation and income or a gain from other items (for example, discontinued operations or other comprehensive income). This update also addresses the split recognition of franchise taxes that are partially based on income between income-based tax and non-income-based tax. The Company elected to adopt the ASU on January 1, 2021 and the adoption did not have a material impact on the Company's consolidated financial statements.

#### **Recent Accounting Pronouncements Not Yet Adopted**

In October 2021, the FASB issued ASU 2021-08, "*Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers*". Under ASU 2021-08, an acquirer must recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with Topic 606, as if it had originated the contracts. Prior to this ASU, an acquirer generally recognizes contract assets acquired and contract liabilities assumed that arose from contracts with customers at fair value on the acquisition date. This guidance is effective for interim and annual periods beginning after December 15, 2022, with early adoption permitted. The Company plans to adopt ASU 2021-08 on a prospective basis effective January 1, 2023. The Company will continue to evaluate the impact of this ASU, which will depend on the contract assets and liabilities acquired in future business combinations.



## 2. Revenue from Contracts with Customers

### Disaggregation of Revenue

The following table summarizes revenue by region based on the billing country of users (in thousands, except percentages):

	Year Ended December 31,					
	2022		2021		2020	
	Amount	Percentage of Revenue	Amount	Percentage of Revenue	Amount	Percentage of Revenue
United States and Canada <sup>(1)</sup>	\$ 1,465,955	66 %	\$ 1,298,938	68 %	\$ 638,354	69 %
Europe	404,431	18	357,656	19	168,303	18
Asia-Pacific, including Australia and New Zealand	204,261	8	145,464	7	70,530	8
Rest of world	150,405	7	117,123	6	46,698	5
Total	\$ 2,225,052	100 %	\$ 1,919,181	100 %	\$ 923,885	100 %

(1) The Company's revenues in the U.S. were 62%, 63%, and 65% of consolidated revenues for each of the years ended December 31, 2022, 2021, and 2020, respectively.

No individual country, other than those disclosed above, exceeded 10% of the Company's total revenue for any period presented.

Durable virtual items accounted for 90%, 89%, and 87% of Roblox Platform revenue in the years ended December 31, 2022, 2021, and 2020, respectively. Consumable virtual items accounted for 10%, 11%, and 13% of Roblox Platform revenue in the years ended December 31, 2022, 2021, and 2020, respectively.

### Deferred Revenue

The Company receives payments from its users based on the payment terms established in its contracts. Such payments are initially recorded to deferred revenue and are recognized into revenue as the Company satisfies its performance obligations. The aggregate amount of revenue allocated to unsatisfied performance obligations is included in our deferred revenue balances.

The increase in the deferred revenue for the year ended December 31, 2022 was driven by sales during the period exceeding revenue recognized from the satisfaction our performance obligations, which includes the revenue recognized during the period that was included in the current portion deferred revenue balance at the beginning of the period.

## 3. Leases

The Company has operating leases for real estate and co-located data centers. The components of lease expense were as follows (in thousands):

	Year Ended December 31,	
	2022	2021
Operating lease expense	\$ 90,933	\$ 53,442
Variable and short-term lease expense	\$ 11,586	\$ 3,860

As of December 31, 2022 and 2021, we had short-term operating lease liabilities totaling \$ 73.2 million and \$51.3 million, respectively, included within accrued expenses and other current liabilities on our consolidated balance sheets.

The following table presents future lease payments under the Company's non-cancelable operating leases as of December 31, 2022 (in thousands):

Year ending December 31,		
2023	\$	63,226
2024		114,195
2025		103,100
2026		88,077
2027		66,767
Thereafter		303,844
Total lease payments	\$	739,209
Less: imputed interest <sup>(1)</sup>		171,384
Present value of lease liabilities	\$	567,825

(1) Calculated using each lease's incremental borrowing rate.

In addition, the Company has executed operating leases for real estate and co-located data centers which have not commenced as of December 31, 2022. The non-cancellable lease payments for these leases totaled \$354.5 million as of December 31, 2022, with lease terms ranging between 7 to 12 years.

Of the above amount, approximately \$212.5 million pertains to a lease signed by the Company on March 10, 2022 for office space in San Mateo, California of approximately 218,554 square feet, with a term of approximately 12 years and two renewal options of 5 years each. The Company expects to obtain possession of the office space in the second quarter of 2023. In addition, the Company expects to receive \$22.9 million in tenant improvement allowance for the office space.

The following table presents the weighted average remaining lease term and discount rates as of December 31, 2022 and December 31, 2021:

	As of December 31,	
	2022	2021
Weighted average remaining lease term	7.8	5.8
Weighted average discount rate	5.5 %	4.0 %

Supplemental cash and noncash information related to operating leases is as follows (in thousands):

	Year Ended December 31,			
	2022		2021	
Cash paid for amounts included in the measurement of lease liabilities <sup>(1)</sup>	\$	70,515	\$	52,942
Lease liabilities arising from obtaining new right-of-use assets (noncash)	\$	373,844	\$	70,068

(1) The years ended December 31, 2022 and December 31, 2021 excludes \$1.8 million and \$9.1 million, respectively, of leasehold incentives received from the landlord.

#### 4. Fair Value Measurements

##### Financial Assets

The composition of our financial assets measured at fair value on a recurring basis are set forth below (in thousands):

Financial Instrument	Fair Value Hierarchy	Fair Value December 31,	
		2022	2021
Financial Assets:			
Money market funds classified as cash equivalents	Level 1	\$ 1,903,880	\$ 2,853,055

## Financial Liabilities

The Company's financial liabilities that are not measured at fair value on a recurring basis consist of its 2030 Notes. Refer to Note 8, "Debt" to the Notes to Consolidated Financial Statements for more information.

As of December 31, 2022 and 2021, the estimated fair value of the 2030 Notes was approximately \$ 788.2 million and \$ 1,016.2 million, respectively, determined based on the trading price of the 2030 Notes on the last trading day of the reporting period in an inactive market, which represents a Level 2 input.

## 5. Acquisitions

### *Byfron Technologies, LLC Acquisition*

On October 11, 2022 (the "Byfron Acquisition Date"), the Company acquired all outstanding equity interests of Byfron Technologies, LLC ("Byfron"), a privately-held company that operates a security and anti-cheat software for game publishers. The acquisition has been accounted for as a business combination. The consideration totaled \$9.6 million, which included \$2.0 million of cash to be held back for 18 months following the Byfron Acquisition Date. The aggregate purchase consideration comprised of the following (in thousands):

	<b>Fair Value</b>
Cash paid	\$ 7,603
Cash holdback	2,000
<b>Total purchase price</b>	<b>\$ 9,603</b>

In connection with the acquisition, the Company also entered into agreements with the Byfron founders, which provide them \$ 9.6 million over a three year service period following the Byfron Acquisition Date, subject to their continued service with the Company during that period. The agreements were determined to primarily benefit the Company and were recognized separate from the business combination. The expense associated with these agreements will be recognized ratably over the requisite service period of three years as a component of research and development expense.

The following table summarizes the Company's allocation of the purchase consideration based on the fair value of assets acquired and liabilities assumed at the Byfron Acquisition Date (in thousands):

	<b>October 11, 2022</b>
Cash and cash equivalents	\$ 380
Goodwill	3,882
Identified intangible assets	5,500
Other assets	169
Other current liabilities	\$ (328)
<b>Total purchase price</b>	<b>\$ 9,603</b>

The following table presents details of the identifiable assets acquired (in thousands, except estimated useful life):

	<b>Carrying Amount</b>	<b>Estimated Useful Life (Years)</b>
Developed technology	\$ 5,500	5
<b>Total</b>	<b>\$ 5,500</b>	

Goodwill is primarily attributable to the assembled workforce and anticipated synergies arising from the acquisition. The goodwill recorded in the acquisition is expected to be deductible for income tax purposes.

### Hamul, Inc. Acquisition

On April 1, 2022 ("Hamul Acquisition Date"), the Company acquired all outstanding equity interests of Hamul, Inc. ("Hamul") a privately-held company that provides a platform for connecting gaming communities. The acquisition has been accounted for as a business combination. The fair value of the consideration transferred was \$19.3 million, which consisted of \$9.2 million paid in cash and 385,093 shares of Class A common stock with a fair value of \$ 4.0 million. The aggregate purchase consideration was comprised of the following (in thousands):

	<b>Fair Value</b>
Cash paid	\$ 9,185
Common stock issued	4,009
Replacement awards attributable to pre-acquisition service	6,129
Total purchase price	<u>\$ 19,323</u>

In connection with the acquisition, the Company entered into a stock-based consideration vesting agreement with the Hamul founders. The portion of the fair value of the common stock associated with pre-acquisition service of the Hamul founders represented a component of the total purchase consideration, as presented above. The remaining fair value of \$7.6 million of these issued shares was excluded from the purchase price. These shares, which are subject to the recipients' continued service with the Company, will be recognized ratably as stock-based compensation expense as a component of research and development expense over the requisite service period of 3 years following the Hamul Acquisition Date.

The total purchase consideration was allocated to the tangible and intangible assets acquired, and liabilities assumed, based upon their respective fair values as of the date of the acquisition. Management determined the preliminary fair values based on a number of factors. The excess of the purchase price over the net assets acquired was recorded as goodwill. Goodwill is attributable to the assembled workforce and anticipated synergies arising from the acquisition. The goodwill recognized is not expected to be deductible for income tax purposes.

The following table summarizes the Company's preliminary allocation of the purchase consideration based on the fair value of assets acquired and liabilities assumed at the Hamul Acquisition Date (in thousands):

	<b>April 1, 2022</b>
Cash and cash equivalents	\$ 3,020
Goodwill	12,382
Identified intangible assets	4,500
Deferred tax liabilities	(579)
Total purchase price	<u>\$ 19,323</u>

The following table presents details of the identifiable assets acquired (in thousands, except estimated useful life):

	<b>Carrying Amount</b>	<b>Estimated Useful Life (Years)</b>
Developed technology	\$ 4,500	5
Total	<u>\$ 4,500</u>	

### Guided Acquisition

On August 16, 2021 (the "Guided Acquisition Date"), the Company acquired all outstanding equity interests of Guided, Inc., ("Guided"), a privately-held company that operates a communications platform for connecting gaming communities. The acquisition has been accounted for as a business combination. The fair value of the consideration transferred was \$77.6 million, which consisted of \$46.3 million paid in cash and 0.5 million shares of Roblox's Class A common stock with a fair value of \$31.3 million. The aggregate purchase consideration for Guided was comprised of the following (in thousands):

	<b>Fair Value</b>
Cash paid	\$ 46,285
Roblox Class A common stock issued	22,744
Replacement awards attributable to pre-acquisition service	8,530
Total purchase price	<u>\$ 77,559</u>

The acquisition-related costs were not material and were recorded as general and administrative expenses in the Company's consolidated statements of operations for the year ended December 31, 2021.

In connection with the acquisition, the Company entered into a stock-based consideration vesting agreement with the Guided founder. The portion of the fair value of the common stock associated with pre-acquisition service of the Guided founder represented a component of the total purchase consideration, as presented above. The remaining fair value of \$8.5 million of these issued shares was excluded from the purchase price. These shares, which are subject to the recipients' continued service with the Company, will be recognized ratably as stock-based compensation expense as a component of research and development expense over the requisite service period of 3 years.

The total purchase consideration of the Guided acquisition was allocated to the tangible and intangible assets acquired, and liabilities assumed, based upon their respective fair values as of the date of the acquisition. Management determined the preliminary fair values based on a number of factors, including a valuation from an independent third-party valuation firm. The excess of the purchase price over the net assets acquired was recorded as goodwill. Goodwill is attributable to the assembled workforce and anticipated synergies arising from the acquisition. The goodwill recorded in the acquisition is not deductible for income tax purposes.

The following table summarizes the Company's allocation of the purchase consideration based on the fair value of assets acquired and liabilities assumed at the Guided Acquisition Date (in thousands):

	<b>August 16, 2021</b>
Cash and cash equivalents	\$ 593
Goodwill	58,503
Identified intangible assets	19,600
Deferred tax liabilities	(999)
Accrued expenses and other current liabilities	(138)
Total purchase price	<u>\$ 77,559</u>

The following table presents details of the identifiable intangible assets acquired at the Guided Acquisition Date (in thousands, except estimated useful life):

	<b>Carrying Amount</b>	<b>Estimated Useful Life (Years)</b>
Developed technology	\$ 19,100	5
Trade name	500	5
Total	<u>\$ 19,600</u>	

### Other Acquisitions

During the year ended December 31, 2021, the Company completed two individually immaterial acquisitions. These transactions were accounted for as asset acquisitions as they did not meet the definition of a business. The acquired assets consisted entirely of assembled workforce and had a fair value of \$8.5 million with an estimated useful life of 3 years. The aggregate purchase consideration consisted of \$8.5 million, paid in cash.

### Loom.ai Acquisition

On December 11, 2020, the Company acquired Loom.ai, a privately-held company specializing in real-time facial animation technology for 3D avatars using deep learning, computer vision and VFX. The acquisition has been accounted as a business combination. The acquisition date fair value of the consideration transferred was \$86.7 million, which consisted of cash and 1.3 million shares of Roblox's Class A common stock with a fair value of \$ 40.7 million. The aggregate purchase consideration for Loom.ai was comprised of the following (in thousands):

	Fair Value
Cash paid	\$ 45,998
Common stock issued	35,203
Replacement awards attributable to pre-acquisition service	5,493
Total purchase price	<u>\$ 86,694</u>

Cash consideration included reimbursement of acquisition-related transaction costs of \$ 0.8 million incurred by Loom.ai to execute the transaction. Additionally, the acquisition-related costs were not material and were recorded as general and administrative expenses in the Company's consolidated statements of operations for the year ended December 31, 2020.

In connection with the acquisition, the Company entered into stock-based consideration revestment agreements with the Loom.ai founders. The portion of the fair value of the common stock associated with pre-acquisition service of Loom.ai founders represented a component of the total purchase consideration, as presented above. The remaining fair value of \$9.2 million of these issued shares was excluded from the purchase price. These shares, which are subject to the recipients' continued service with the Company, will be recognized ratably as stock-based compensation expense as a component of research and development expense over the requisite service period of 3 years.

The total purchase consideration of the Loom.ai acquisition was allocated to the tangible and intangible assets acquired, and liabilities assumed, based upon their respective fair values as of the date of the acquisition. Management determined the fair values based on a number of factors, including a valuation from an independent third-party valuation firm. The excess of the purchase price over the net assets acquired was recorded as goodwill. Goodwill is attributable to the assembled workforce and anticipated synergies arising from the acquisition. Of the total goodwill recorded in connection with the acquisition of Loom.ai, \$6.7 million was deductible for tax purposes.

The following table summarizes the fair values of the assets acquired and liabilities assumed as of the acquisition date (in thousands):

	December 11, 2020
Cash and cash equivalents	\$ 5,080
Prepaid expenses and other current assets	45
Goodwill	59,568
Identified intangible asset - developed technology	29,000
Deferred tax liabilities	(6,681)
Accrued expenses and other current liabilities	(318)
Total purchase price	<u>\$ 86,694</u>

The identifiable intangible assets acquired consisted entirely of existing technology, which has a fair value of \$ 29.0 million and an estimated remaining useful life of 5 years as of December 31, 2020.

### *Imbellus Acquisition*

On November 30, 2020, the Company completed the acquisition of substantially all of the assets from Imbellus, Inc., a privately-held software company, which developed simulation-based cognitive assessments that measure human thought process. The asset acquisition consisted entirely of existing technology, which has a fair value of \$11.7 million and an estimated remaining useful life of 5 years as of December 31, 2020. The purchase consideration consisted of 80,000 shares of Roblox's Class A common stock, with a fair value of \$ 2.9 million, and \$8.8 million of cash including direct transaction costs.

## **6. Goodwill and Intangible Assets**

### **Goodwill**

Goodwill is recorded when the purchase price of an acquisition exceeds the fair value of the net tangible and identified intangible assets acquired.

The following table represents the changes to goodwill from December 31, 2020 to December 31, 2022 (in thousands):

	<b>Carrying Amount</b>
Balance as of December 31, 2020	\$ 59,568
Addition from acquisition	58,503
Balance as of December 31, 2021	\$ 118,071
Addition from acquisition	16,264
Balance as of December 31, 2022	\$ 134,335

There are no accumulated impairment losses for any period presented.

### **Intangible Assets**

The following tables present details of the Company's finite-lived intangible assets as of December 31, 2022 and December 31, 2021 (in thousands):

	<b>As of December 31, 2022</b>		
	<b>Gross Carrying Amount</b>	<b>Accumulated Amortization</b>	<b>Net Carrying Amount</b>
Developed technology	\$ 72,059	\$ (24,240)	\$ 47,819
Assembled workforce	10,000	(4,042)	5,958
Trade name	500	(133)	367
Total intangible assets	\$ 82,559	\$ (28,415)	\$ 54,144

	<b>As of December 31, 2021</b>		
	<b>Gross Carrying Amount</b>	<b>Accumulated Amortization</b>	<b>Net Carrying Amount</b>
Developed technology	\$ 62,059	\$ (11,233)	\$ 50,826
Assembled workforce	8,500	(708)	7,792
Trade name	500	(25)	475
Total intangible assets	\$ 71,059	\$ (11,966)	\$ 59,093

The above tables do not include \$0.6 million of indefinite lived intangible assets as of December 31, 2022 and December 31, 2021.

As of December 31, 2022, the weighted-average remaining useful lives of our finite-lived intangible assets were 3.3 years for developed technology, 3.7 years for trade names, 1.8 years for assembled workforce, and 3.1 years in total, for all finite-lived intangible assets.

Amortization expense was \$16.4 million, \$10.8 million, and \$1.1 million for the years ended December 31, 2022, 2021, and 2020, respectively.

Expected future amortization expenses related to the intangible assets as of December 31, 2022 were as follows (in thousands):

Year ending December 31,		
2023	\$	17,749
2024		16,696
2025		14,036
2026		4,613
2027		1,050
Thereafter		—
Total remaining amortization	\$	54,144

## 7. Other Balance Sheet Components

### Prepaid expenses and other current assets

Prepaid expenses and other current assets consisted of the following (in thousands):

	As of December 31,	
	2022	2021
Prepaid expenses	\$ 45,173	\$ 27,671
Other current assets	16,468	4,420
Total prepaid expenses and other current assets	\$ 61,641	\$ 32,091

### Property and equipment, net

Property and equipment, net, consisted of the following (in thousands):

	As of December 31,	
	2022	2021
Servers and related equipment and software	\$ 741,418	\$ 361,227
Computer hardware and software	23,647	16,154
Furniture and fixtures	446	179
Leasehold improvements	69,311	30,482
Construction in progress	24,306	16,837
Total property and equipment	859,128	424,879
Less: accumulated depreciation and amortization	(266,782)	(153,527)
Property and equipment—net	\$ 592,346	\$ 271,352

Construction in progress primarily relates to leasehold improvements for the Company's leased office buildings and network equipment infrastructure to support the Company's data centers.

Depreciation expense was \$113.7 million, \$64.9 million, and \$42.7 million for years ended December 31, 2022, 2021, and 2020, respectively.



### Accrued expenses and other current liabilities

Accrued expenses and other current liabilities consisted of the following (in thousands):

	As of December 31,	
	2022	2021
Accrued operating expenses	\$ 80,122	\$ 56,134
Short term operating lease liabilities	73,235	51,303
Accrued interest on the 2030 Notes	6,458	6,781
Taxes payable	49,361	43,286
Accrued compensation and other employee related liabilities	21,003	14,511
Other current liability	5,827	8,754
Total accrued expenses and other current liabilities	\$ 236,006	\$ 180,769

### 8. Debt

#### 2030 Notes

Long-term debt, net consisted of the following (in thousands):

	As of December 31,	
	2022	2021
<b>2030 Notes</b>		
Principal	\$ 1,000,000	\$ 1,000,000
Unamortized issuance costs	11,016	12,277
Net carrying amount	\$ 988,984	\$ 987,723

On October 29, 2021, the Company issued \$ 1.0 billion aggregate principal amount of its 3.875% Senior Notes due 2030 (the "2030 Notes"). The 2030 Notes mature on May 1, 2030. The 2030 Notes bear interest at a rate of 3.875% per annum. Interest on the 2030 Notes is payable semi-annually in arrears on May 1 and November 1 of each year, commencing on May 1, 2022.

The aggregate proceeds from offering of the 2030 Notes were approximately \$ 987.5 million, after deducting lenders costs and other issuance costs incurred by the Company. The issuance costs of \$ 12.5 million are amortized into interest expense using the effective interest method over the term of the 2030 Notes.

The Company may voluntarily redeem the 2030 Notes, in whole or in part, under the following circumstances:

- (1) at any time prior to November 1, 2024, the Company may on any one or more occasions redeem up to 40% of the aggregate principal amount of the 2030 Notes at a redemption price of 103.875% of the principal amount including accrued and unpaid interest, if any, with the net cash proceeds of certain equity offerings; provided that (1) at least 50% of the aggregate principal amount of 2030 Notes originally issued remains outstanding immediately after the occurrence of such redemption (excluding 2030 Notes held by the Company and its subsidiaries); and (2) the redemption occurs within 180 days of the date of the closing of such equity offerings.
- (2) on or after November 1, 2024, the Company may redeem all or a part of the 2030 Notes at the following redemption prices (expressed as percentages of principal amount), plus accrued and unpaid interest, if any, to, but excluding, the applicable redemption date:

Year	Percentage
2024	101.938 %
2025	100.969 %
2026 and thereafter	100.000 %

- (3) at any time prior to November 1, 2024, the Company may redeem all or a part of the 2030 Notes at a redemption price equal to 100% of the principal amount of 2030 Notes redeemed, including accrued and unpaid interest, if any, plus the applicable “make-whole” premium set forth in the indenture governing the 2030 Notes (the “Indenture”) as of the date of such redemption; and
- (4) in connection with any tender offer for the 2030 Notes, including an offer to purchase, if holders of not less than 90% in aggregate principal amount of the outstanding 2030 Notes validly tender and do not withdraw such notes in such tender offer and the Company (or any third party making such a tender offer in lieu of the Company) purchases all of the 2030 Notes validly tendered and not withdrawn by such holders, the Company (or such third party) will have the right, upon not less than 10, but not more than 60 days’ prior notice, given not more than 30 days following such purchase date to the holders of the 2030 Notes and the trustee, to redeem all of the 2030 Notes that remain outstanding following such purchase at a redemption price equal to the price offered to each holder of 2030 Notes (excluding any early tender or incentive fee) in such tender offer plus to the extent not included in the tender offer payment, accrued and unpaid interest, if any.

In certain circumstances involving a change of control triggering event (as defined in the Indenture), the Company will be required to make an offer to repurchase all, or at the holder’s option, any part, of each holder’s 2030 Notes at 101% of the aggregate principal amount, plus accrued and unpaid interest, if any, to the applicable repurchase date.

The 2030 Notes are unsecured obligations and the Indenture contains covenants limiting the Company and its subsidiaries’ ability to: (i) create certain liens and enter into sale and lease-back transactions; (ii) create, assume, incur or guarantee indebtedness; or (iii) consolidate or merge with or into, or sell or otherwise dispose of all of substantially all of the Company and its subsidiaries’ assets to another person. These covenants are subject to a number of limitations and exceptions set forth in the Indenture.

Interest expense recognized in the consolidated statements of operations related to the 2030 Notes was as follows (in thousands):

	Year Ended December 31,	
	2022	2021
Contractual interest expense	\$ 38,642	\$ 6,781
Amortization of debt issuance costs	1,261	216
<b>Total interest expense</b>	<b>\$ 39,903</b>	<b>\$ 6,997</b>

The debt issuance costs for the 2030 Notes are amortized to interest expense over the term of the 2030 Notes using an annual effective interest rate of 4.05%.

As of December 31, 2022, the Company was in compliance with all of its covenants under the Indenture.

## 9. Commitments and Contingencies

**Lease Commitments**—The Company leases office facilities and space for data center operations under operating leases expiring in various years through 2035. Certain of these arrangements have free or escalating rent payment provisions and optional renewal clauses. All of the Company’s leases are accounted for as operating leases. Refer to Note 3, “Leases” to the Notes to Consolidated Financial Statements for more information.

**Purchase Obligations**—Non-cancellable contractual purchase obligations, primarily related to the Company’s data center hosting providers and software vendors, as of December 31, 2022, are as follows (in thousands):

	Year ending December 31,						Thereafter	Total
	2023	2024	2025	2026	2027			
Purchase Obligations	\$ 225,707	\$ 7,073	\$ 1,366	\$ 201	\$ 56	\$ —	\$ 234,403	

**2030 Notes**—Future interest and principal payments related to the 2030 Notes, as of December 31, 2022, are as follows (in thousands):

	Year ending December 31,					Thereafter	Total
	2023	2024	2025	2026	2027		
2030 Notes, including interest	\$ 38,750	\$ 38,750	\$ 38,750	\$ 38,750	\$ 38,750	\$ 1,096,870	\$ 1,290,620

**Letters of Credit**—The Company has letters of credit in connection with our operating leases which are not reflected in the Company's consolidated balance sheets as of December 31, 2022 and 2021. The Company has not drawn down from the letters of credit and had \$9.9 million available in aggregate as of December 31, 2022 and 2021.

**Legal Proceedings**—The Company is and, from time to time may in the future become, involved in legal proceedings, claims and litigation in the ordinary course of business.

As of December 31, 2022, the Company has accrued for immaterial losses related to those litigation matters that the Company believes to be probable and for which an amount of loss can be reasonably estimated. The Company considered the progress of these cases, the opinions and views of its legal counsel and outside advisors, its experience and settlements in similar cases, and other factors in arriving at the conclusion that a potential loss was probable. The Company cannot determine a reasonable estimate of the maximum possible loss or range of loss for all of these matters given that they are at various stages of the litigation process and each case is subject to the inherent uncertainties of litigation. The Company may incur substantial legal fees, which are expensed as incurred, in defending against these legal proceedings. The maximum amount of liability that may ultimately result from any of these matters cannot be predicted with absolute certainty and the ultimate resolution of one or more of these matters could ultimately have a material adverse effect on our operations.

**Indemnification**—In the ordinary course of business, the Company enters into agreements that may include indemnification provisions. Pursuant to such agreements, the Company may indemnify, hold harmless and defend an indemnified party for losses suffered or incurred by the indemnified party. Some of the provisions will limit losses to those arising from third-party actions. In some cases, the indemnification will continue after the termination of the agreement. The maximum potential amount of future payments the Company could be required to make under these provisions is not determinable. To date, the Company has not incurred material costs to defend lawsuits or settle claims related to these indemnification provisions.

The Company has also entered into indemnification agreements with its directors and officers that may require the Company to indemnify its directors and officers against liabilities that may arise by reason of their status or service as directors or officers to the fullest extent permitted by Delaware corporate law. To date, the Company has not incurred any material costs and have not accrued any liabilities related to such obligations. The Company also currently has directors' and officers' insurance.

#### **10. Convertible Preferred Stock**

In January 2021, the Company issued 11,888,886 shares of Series H convertible preferred stock to certain institutional accredited investors in a private placement at a purchase price of \$45.00 per share for aggregate net proceeds of approximately \$534.3 million. There was no underwriter or placement agent used in connection with this sale.

The Company previously issued Series A, Series B, Series C, Series D, Series D-1, Series E, Series F, and Series G prior to 2021. In November 2020, pursuant to a conversion notice and an exchange agreement with entities affiliated with the Company's Founder, President, CEO and Chair of the Company's Board of Directors, all outstanding convertible preferred stock held by those entities were converted into our Class A common stock and thereafter all 57.3 million outstanding shares of Class A common stock held by those entities were exchanged for 57.3 million shares of Class B common stock. The rights of the holders of Class A common stock and Class B common stock are identical, except with respect to voting and conversion.

Immediately prior to the completion of the direct listing of the Company's Class A common stock (the "Direct Listing") on the New York Stock Exchange, all outstanding shares of the Company's convertible preferred stock converted into an aggregate of 349,123,976 shares of Class A common stock.

The following table summarizes the convertible preferred stock outstanding immediately prior to the conversion into common stock, and the rights and preferences of the Company's respective series preceding the Direct Listing in March 2021 (in thousands except per share data):

Series	Shares		Per share price at issuance	Per share conversion price	Aggregate Liquidation Preference	Carrying Value of Preferred
	Authorized	Outstanding				
A	28,000	16,358	\$ 0.02	\$ 0.02	\$ 327	\$ 313
B	45,532	45,532	\$ 0.03	\$ 0.03	1,070	1,054
C	95,290	95,290	\$ 0.03	\$ 0.03	2,935	4,150
D	54,860	54,215	\$ 0.04	\$ 0.04	2,150	2,097
D-1	44,706	44,706	\$ 0.09	\$ 0.09	4,172	12,998
E	24,340	24,340	\$ 1.03	\$ 1.03	25,000	24,906
F	33,149	33,149	\$ 4.53	\$ 4.53	150,000	149,640
G	23,645	23,645	\$ 6.34	\$ 6.34	150,000	149,669
H	12,222	11,889	\$ 45.00	\$ 45.00	535,000	534,286
Total	361,744	349,124			\$ 870,654	\$ 879,113

The following table summarizes the convertible preferred stock outstanding prior to the conversion into common stock, and the rights and preferences of the Company's respective series as of December 31, 2020 (in thousands except per share data):

Series	Shares		Per share price at issuance	Per share conversion price	Aggregate Liquidation Preference	Carrying Value of Preferred
	Authorized	Outstanding				
A	28,000	16,358	\$ 0.02	\$ 0.02	\$ 327	\$ 313
B	45,532	45,532	\$ 0.03	\$ 0.03	1,070	1,054
C	95,290	95,290	\$ 0.03	\$ 0.03	2,935	4,150
D	54,860	54,215	\$ 0.04	\$ 0.04	2,150	2,097
D-1	44,706	44,706	\$ 0.09	\$ 0.09	4,172	12,998
E	24,340	24,340	\$ 1.03	\$ 1.03	25,000	24,906
F	33,149	33,149	\$ 4.53	\$ 4.53	150,000	149,640
G	23,645	23,645	\$ 6.34	\$ 6.34	150,000	149,669
Total	349,522	337,235			\$ 335,654	\$ 344,827

#### 11. Stockholders' Equity (Deficit)

**Preferred Stock**—The amended and restated certificate of incorporation authorizes the issuance of 100.0 million shares of convertible preferred stock with a par value of \$0.0001 per share.

**Common Stock**—The Company's amended and restated certificate of incorporation authorizes the issuance of Class A common stock and Class B common stock. As of December 31, 2022, the Company is authorized to issue 4,935.0 million shares of Class A common stock and 65.0 million shares of Class B common stock. Holders of Class A common stock and Class B common stock are entitled to dividends on a pro rata basis, when, as, and if declared by the Company's Board of Directors, subject to the rights of the holders of the Company's convertible preferred stock. Holders of Class A common stock are entitled to one vote per share, and holders of Class B common stock are entitled to 20 votes per share. Each share of our Class B common stock is convertible into one share of our Class A common stock at any time and will convert automatically upon certain transfers and upon the earliest of (i) the date that is specified by the affirmative vote of the holders of two-thirds of the then-outstanding shares of Class B common stock, (ii) the date on which less than 30% of the Class B common stock that was outstanding on March 2, 2021 continues to remain outstanding, (iii) March 10, 2036, (iv) nine months after the death or permanent disability of Mr. David Baszucki, and (v) nine months after the date on which Mr. Baszucki no longer serves as our CEO or as a member of our Board of Directors. Class A common stock and Class B common stock are not redeemable at the option of the holder.

During the year ended December 31, 2021, 6.0 million shares of Class B common stock held by entities affiliated with Mr. Baszucki, Founder, President, CEO and Chair of our Board of Directors were converted to Class A common stock.

Class A and Class B common stock are referred to as common stock throughout the notes to the consolidated financial statements, unless otherwise noted.

The Company had reserved shares of common stock for future issuance as follows (in thousands):

	As of December 31,		
	2022	2021	2020
Stock options outstanding	51,591	63,267	98,502
RSUs outstanding	30,322	14,684	3,061
CEO Long-Term Performance Award	11,500	11,500	—
2022 PSU Grants	415	—	—
2020 Equity Incentive Plan	59,945	52,811	15,448
2020 Employee Stock Purchase Plan	11,093	5,809	—
Stock warrants outstanding	264	324	324
RSAs outstanding	500	468	388
Conversion of convertible preferred stock	—	—	337,235
Total	165,630	148,863	454,958

## 12. Stock-based Compensation

### 2004 Incentive Stock Plan

In 2004, the Company approved the 2004 Incentive Stock Plan (the "2004 Plan"), under which the Board of Directors may grant incentive stock options to employees and nonstatutory stock options to employees, members of the Board of Directors and consultants of the Company and its subsidiaries.

Under the 2004 Plan, incentive stock options and nonstatutory stock options may be granted at a price not less than fair value and 85% of the fair value, respectively (110% of fair value for incentive stock options granted to holders of 10% or more of voting stock). Fair value is determined by the Board of Directors. Options are exercisable over periods not to exceed 10 years (five years for incentive stock options granted to holders of 10% or more of the voting stock) from the date of grant.

The 2004 Plan was terminated on the effective date of the 2017 Amended and Restated Equity Incentive Plan, and accordingly, no shares are available for issuance under the 2004 Plan. The 2004 Plan continues to govern outstanding awards granted thereunder.

### 2017 Amended and Restated Equity Incentive Plan

In 2017, the Company approved the 2017 Amended and Restated Equity Incentive Plan (the "2017 Plan"), under which the Board of Directors may grant incentive stock options to employees and nonstatutory stock options, stock appreciation rights, restricted stock, and RSUs, to employees, members of the Board of Directors and consultants of the Company and its subsidiaries.

Under the 2017 Plan, incentive stock options and nonstatutory stock options may be granted at a price not less than fair value (110% of fair value for options issued to holders of 10% or more of voting stock). Stock appreciation rights may be granted at a price not less than fair value. Fair value is determined by the Board of Directors. Options are exercisable over periods not to exceed 10 years (five years for incentive stock options granted to holders of 10% or more of the voting stock) from the date of grant.

In connection with the Direct Listing, the 2017 Plan was terminated effective immediately prior to the effectiveness of the 2020 Equity Incentive Plan, and accordingly, no shares are available for issuance under the 2017 Plan. The 2017 Plan continues to govern outstanding awards granted thereunder.

### **2020 Equity Incentive Plan**

In 2020, the Company's Board of Directors adopted, and its stockholders approved, the 2020 Equity Incentive Plan (the "2020 Plan"), which became effective on the business day immediately prior to the effective date of the registration statement for the Company's Direct Listing. Under the 2020 Plan, the Board of Directors may grant incentive stock options to employees and stock appreciation rights, RSAs, and RSUs, performance units and performance shares to employees, members of the Board of Directors and consultants of the Company and its subsidiaries.

Under the 2020 Plan, incentive stock options, nonstatutory stock options, and stock appreciation rights may be granted at a price not less than 100% of the fair market value of the underlying common stock on the date of grant (110% of fair value for incentive stock options issued to holders of 10% or more of voting stock). Options and stock appreciation rights are exercisable over a period not to exceed 10 years (five years for incentive stock options granted to holders of 10% or more of the voting stock) from the date of grant.

Under the 2020 Plan, 60.0 million shares of Class A common stock were initially reserved for future issuance. The number of shares of our Class A common stock reserved for future issuance under our 2020 Plan automatically increases on January 1 of each year by the least of (i) 75,000,000 shares; (ii) five percent (5%) of the outstanding shares of all classes of the Company's common stock as of December 31 of the preceding fiscal year; or (iii) a number of shares that may be determined by the Company's Board of Directors. Stock-based awards under the 2020 Plan that expire or are forfeited, cancelled, or repurchased generally are returned to the pool of shares of Class A common stock available for issuance under the 2020 Plan. In addition, subject to the adjustment provisions of the 2020 Plan, the shares reserved for issuance under the 2020 Plan also includes (i) any shares that, as of the day immediately prior to the effective date of the registration statement, have been reserved but not issued pursuant to any awards granted under the 2017 Plan and are not subject to any awards thereunder and (ii) any shares subject to stock options, RSUs or similar awards granted under our 2017 Plan and 2004 Plan that, after the effective date of the registration statement, expire or otherwise terminate without having been exercised or issued in full, are tendered to or withheld by the Company for payment of an exercise price or for tax withholding obligations, or are forfeited to or repurchased by the Company due to failure to vest.

### **Employee Stock Purchase Plan**

In 2020, the Company's Board of Directors adopted, and its stockholders approved, the 2020 Employee Stock Purchase Plan (the "2020 ESPP"), which became effective in connection with the Direct Listing. The 2020 ESPP authorizes the issuance of shares of common stock pursuant to purchase rights granted to employees. At inception, 6.0 million shares of the Company's Class A common stock were reserved for future issuance under the 2020 ESPP. The number of shares of our Class A common stock reserved for future issuance under our 2020 ESPP automatically increases on January 1 of each year by the least of (i) 15,000,000 shares; (ii) one percent (1%) of the outstanding shares of all classes of the Company's common stock as of December 31 of the preceding fiscal year; or (iii) a number of shares that may be determined by the Company's Board of Directors

The 2020 ESPP plan is a compensatory plan and includes two components: a component that allows the Company to make offerings intended to qualify under Section 423 of the Internal Revenue Code of 1986 (the "Code") and a component that allows the Company to make offerings not intended to qualify under Section 423 of the Code. Subject to any limitations contained therein, the 2020 ESPP allows eligible employees to contribute (in the form of payroll deductions or otherwise to the extent permitted by the administrator) an amount established by the administrator from time to time in its discretion to purchase Class A common stock at a discounted price per share. The price at which Class A common stock is purchased under the 2020 ESPP is equal to 85% of the fair market value of a share of the Company's Class A common stock on the enrollment date or exercise date, whichever is lower. Offering periods are generally 24 months long and begin on the first trading day on or after February 25 and August 25 of each year with each offering period having four purchase periods of approximately six months each.

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### Stock-based compensation expense

Stock-based compensation expense included in the consolidated statements of operations was as follows (in thousands):

	Year Ended December 31,		
	2022	2021	2020
Infrastructure and trust & safety	\$ 56,197	\$ 35,255	\$ 7,396
Research and development	398,899	219,851	39,402
General and administrative	109,607	72,929	25,939
Sales and marketing	24,795	13,907	6,421
Total stock-based compensation	\$ 589,498	\$ 341,942	\$ 79,158

### Stock Options

The following table presents the assumptions used in estimating the grant date fair value of our stock options, which were last granted during the year ended December 31, 2020:

	Year Ended December 31,
	2020
Risk-free interest rate	0.5% - 1.8%
Expected volatility	35.4% - 39.8%
Dividend yield	—
Expected terms (in years)	7
Fair value of the underlying Class A common stock (per share)	\$4.61 - \$21.06

The following table summarizes the Company's stock option activity (in thousands, except per option data and remaining contractual term):

	Options Outstanding			
	Number of Shares Subject to Options	Weighted-Average Exercise Price (per Option)	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
<b>Balances as of December 31, 2019</b>	99,682	\$ 1.66		
Granted	23,269	\$ 4.73		
Cancelled, forfeited, and expired	(3,859)	\$ 2.39		
Exercised	(20,590)	\$ 0.74		
<b>Balances as of December 31, 2020</b>	98,502	\$ 2.55	7.76	\$ 3,838,994
Granted	—	\$ —		
Cancelled, forfeited, and expired	(1,862)	\$ 3.95		
Exercised	(33,373)	\$ 1.95		
<b>Balances as of December 31, 2021</b>	63,267	\$ 2.82	6.97	\$ 6,348,395
Granted	—	—		
Cancelled, forfeited, and expired	(2,061)	\$ 4.06		
Exercised	(9,615)	\$ 2.37		
<b>Balances as of December 31, 2022</b>	51,591	\$ 2.85	6.00	\$ 1,321,183
Exercisable as of December 31, 2022	40,018	\$ 2.42	5.65	\$ 1,042,119
Vested and expected to vest at December 31, 2022	51,591	\$ 2.85	6.00	\$ 1,321,183

The weighted-average grant-date fair value of options granted for the year ended December 31, 2020 was \$ 9.35. The aggregate intrinsic value of options exercised for the years ended December 31, 2022, 2021, and 2020 was \$423.3 million, \$2,548.3 million, and \$189.5 million, respectively. Aggregate intrinsic value represents the difference between the exercise price of the options and the estimated fair value of the Company's Class A common stock at the time of exercise. The aggregate grant-date fair value of options that vested during the years ended December 31, 2022, 2021, and 2020 was \$64.1 million, \$79.9 million, and \$29.8 million, respectively.

As of December 31, 2022, the Company had \$ 85.7 million of unrecognized stock-based compensation related to unvested options, which is expected to be recognized over a weighted-average remaining requisite service period of 1.7 years.

### RSUs and RSAs

The following table summarizes the Company's RSU and RSA activity (in thousands, except per share data):

	Restricted Stock Units		Unregistered Restricted Stock Awards	
	Number of Shares	Weighted-Average Grant Date Value per Share	Number of Shares	Weighted-Average Grant Date Value per Share
<b>Unvested as of December 31, 2019</b>	30	\$ 3.35	—	—
Granted	3,061	\$ 31.55	388	\$ 37.75
Vested	(30)	\$ 3.35	—	—
<b>Unvested as of December 31, 2020</b>	3,061	\$ 31.55	388	\$ 37.75
Granted	13,382	\$ 78.92	209	\$ 81.67
Vested	(1,376)	\$ 38.46	(129)	\$ 37.75
Cancelled	(383)	\$ 52.78	—	—
<b>Unvested as of December 31, 2021</b>	14,684	\$ 68.03	468	\$ 57.37
Granted	25,540	\$ 41.09	298	\$ 46.00
Vested	(8,169)	\$ 57.65	(266)	\$ 53.67
Cancelled	(1,733)	\$ 57.58	—	—
<b>Unvested as of December 31, 2022</b>	<u>30,322</u>	<u>\$ 48.73</u>	<u>500</u>	<u>\$ 52.55</u>

As of December 31, 2022, the Company had \$ 1,422.0 million of unrecognized stock-based compensation related to RSUs, which is expected to be recognized over the weighted-average remaining requisite service period of 2.9 years.

RSUs granted prior to our Direct Listing vest upon the satisfaction of both the service condition and a liquidity event-related performance vesting condition which was satisfied on the Effective Date. In the first quarter of 2021, we recorded cumulative stock-based compensation expense of \$21.3 million related to all then-outstanding RSUs for which the service-based vesting condition had been satisfied. Stock-based compensation related to the remaining service-based period after the liquidity event-related performance vesting condition was satisfied is being recorded over the remaining requisite service period using the accelerated attribution method.

RSUs granted subsequent to our Direct Listing only have service conditions, which historically have been satisfied generally over four years. For grants made during and subsequent to July 2022, the service condition is satisfied generally over three years.

As of December 31, 2022, the Company had \$ 13.2 million of unrecognized stock-based compensation related to RSAs, which is expected to be recognized over the weighted average remaining requisite service period of 1.8 years.



### **CEO Long-Term Performance Award**

In February 2021, the Leadership Development and Compensation Committee granted the CEO Long-Term Performance Award under the 2017 Plan, which provides him the opportunity to earn a maximum number of 11,500,000 shares of Class A common stock. The CEO Long-Term Performance Award vests upon the satisfaction of a service condition and achievement of certain Class A common stock price targets (referred to as a "Company Stock Price Hurdle"), as described below.

The CEO Long-Term Performance Award is eligible to vest based on the Company's stock price performance over various performance periods, with the first performance period beginning two years after the Effective Date and ending on the seventh anniversary of the Effective Date. The CEO Long-Term Performance Award is divided into seven performance periods that are eligible to vest based on the achievement of various Company Stock Price Hurdles, measured based on an average of our stock price over a consecutive 90-day trading period applicable to the performance period as set forth below. In addition, Mr. Baszucki must remain employed as our CEO through the date a Company Stock Price Hurdle is achieved in order to earn the RSUs that relate to the applicable Company Stock Price Hurdle.

	<b>Company Stock Price Hurdle</b>	<b>Number of RSUs Eligible to Vest</b>	<b>Performance Period Commencement Dates as Measured from the Effective Date</b>
1	\$ 165.00	750,000	2 years
2	\$ 200.00	750,000	3 years
3	\$ 235.00	2,000,000	4 years
4	\$ 270.00	2,000,000	5 years
5	\$ 305.00	2,000,000	5 years
6	\$ 340.00	2,000,000	5 years
7	\$ 375.00	2,000,000	5 years

If the Company Stock Price Hurdle fails to reach \$ 165.00 prior to the seventh anniversary of the Effective Date, no portion of the CEO Long-Term Performance Award will vest. Further, any RSUs associated with a Company Stock Price Hurdle not achieved by the seventh anniversary of the Effective Date will terminate and be cancelled for no additional consideration to Mr. Baszucki. The Company Stock Price Hurdles and number of RSUs eligible to vest will be adjusted to reflect any stock splits, stock dividends, combinations, reorganizations, reclassifications, or similar events under the 2017 Plan. Each vested RSU under the CEO Long-Term Performance Award will be settled in a share of our Class A common stock on the next company quarterly settlement date occurring on or after the date on which the RSU vests, regardless of whether Mr. Baszucki remains the CEO as of such date. Company quarterly settlement dates for this purpose are February 20, May 20, August 20, and November 20.

The Company estimated the grant date fair value of the CEO Long-Term Performance Award using a model based on multiple stock price outcomes developed through the use of a Monte Carlo simulation that incorporates into the valuation the possibility that the Company Stock Price Hurdles may not be satisfied. A Monte Carlo simulation model requires use of various assumptions, including the underlying stock price, volatility, and the risk-free interest rate as of the valuation date, corresponding to the length of time remaining in the performance period, and expected dividend yield. The weighted-average grant date fair value of the CEO Long-Term Performance Award was estimated to be \$20.19 per share, and the Company estimates that as of the grant date, it will recognize total stock-based compensation expense of approximately \$232.2 million over the derived service period of each of the seven separate tranches which is between 3.45 – 5.38 years, using the accelerated attribution method. If the Company Stock Price Hurdles are met sooner than the derived service period, the stock-based compensation expense will be adjusted to reflect the cumulative expense associated with the vested award. The stock-based compensation expense will be recognized over the requisite service period if Mr. Baszucki provides service as the Company's CEO, regardless of whether the Company Stock Price Hurdles are achieved.

The Company recorded \$48.9 million and \$42.0 million of stock-based compensation expense related to the CEO Long-Term Performance Award during the year ended December 31, 2022 and December 31, 2021, respectively, within general and administrative expenses. As of December 31, 2022, unrecognized stock-based compensation expense related to the CEO Long-Term Performance Award was \$141.3 million which will be recognized over the remaining derived service period of each respective tranche.

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## PSUs

During 2022, the Company's Board of Directors granted performance-based restricted stock unit awards (the "2022 PSU Grants"), to certain members of management. The target number of 2022 PSU Grants was 207,284. The number of shares that can be earned will range from 0% to 200% of the target number of shares, based on the Company's stock price performance and achievement of certain stock price hurdles during the last quarter of the second year through the end of the third year of a three-year performance period (the "2022 PSU Grant Stock Price Hurdles") and subject to continuous employment through such date.

The Company estimated the grant date fair value of the 2022 PSU Grants using a model based on multiple stock price outcomes developed through the use of a Monte Carlo simulation which incorporates into the valuation the possibility that the 2022 PSU Grant Stock Price Hurdles may not be satisfied. The grant date fair value of the 2022 PSU Grants was estimated to be \$43.13 per share, and the Company estimates that it will recognize total stock-based compensation expense of approximately \$8.9 million using the accelerated attribution method over the derived service period of each tranche which is equal to five measurement periods commencing with the last quarter of the second year and ending with the last quarter of the third year. If the 2022 PSU Grant Stock Price Hurdles are met sooner than the derived service period, the stock-based compensation expense will be adjusted to reflect the cumulative expense associated with the vested award. Stock-based compensation expense will be recognized over the requisite service period if the members of management continue to provide service to the Company, regardless of whether the 2022 PSU Grant Stock Price Hurdles are achieved.

The Company recorded \$3.0 million of stock-based compensation expense related to the 2022 PSU Grants during the year ended December 31, 2022. As of December 31, 2022, unrecognized stock-based compensation expense related to the 2022 PSU grants was \$5.9 million which will be recognized over the remaining derived service period of each of five tranches.

## Employee Stock Purchase Plan

During the quarter ended March 31, 2022, the fair market value of the Company's stock on the purchase date, February 25, 2022, was lower than the fair market value of the Company's stock on the offering date of the first and second offering periods. As a result, the first and second offering periods were reset and the new lower price became the new offering price. Additionally, the plan also provides for a rollover feature that provides for an offering period to be rolled over to a new lower-priced offering if the offering price of the new offering period is less than that of the current offering period. Accordingly, the first and second offering periods rolled over to a new 24 months offering period. The reset was treated as a modification resulting in incremental expense totaling \$ 4.7 million, which is being recognized over the remaining requisite service period as of the date of reset.

During the quarter ended September 30, 2022, the fair market value of the Company's stock on the purchase date, August 25, 2022, was lower than the fair market value of the Company's stock on the offering date. As a result, the offering period in effect was reset and the new lower price became the new offering price. Additionally, as discussed above, because the plan also provides for a rollover feature that provides for an offering period to be rolled over to a new lower-priced offering if the offering price of the new offering period is less than that of the current offering period, the offering rolled over to a new 24 months offering period. The reset was treated as a modification resulting in incremental expense totaling \$5.1 million, which is being recognized over the remaining requisite service period as of the date of reset.

The following table presents the assumptions used in estimating the grant date fair value of purchase rights granted under the 2020 ESPP for the offerings made in the respective years including reset and rollover:

	Year Ended December 31,					
	2022		2021			
Risk-free interest rate	0.71%	-	3.35%	0.06%	-	0.25%
Expected volatility	54.16%	-	81.51%	46.97%	-	56.91%
Dividend yield		—%			—%	
Expected terms (in years)	0.50	-	2.01	0.44	-	2.00

The Company recorded \$25.7 million and \$9.9 million of stock-based compensation expense related to the 2020 ESPP during the years ended December 31, 2022 and December 31, 2021, respectively.

### **Tender Offer**

In March 2020, in connection with the Company's sale of the Series G convertible preferred stock, the purchasers of the Series G convertible preferred stock conducted a tender offer to acquire approximately 31.1 million shares of Class A common stock and 24.0 million shares of convertible preferred stock from employees, former employees, and other existing investors. In connection with the tender offer, the Company waived any rights of first refusal or other transfer restrictions applicable to such shares. As a result of this transaction, we recorded a total of \$35.2 million in stock-based compensation expense in the year ended December 31, 2020 for the difference between the price paid for shares held by our employees and former employee stockholders and the estimated fair market value on the date of the transaction.

### **13. Employee Benefit Plan**

The Company sponsors a 401(k) defined contribution retirement plan for eligible employees. Under the plan, the Company is required to make a safe harbor contribution of 100% on the first 3% of employee contributions and 50% of the next 2% for each employee, subject to a maximum total contribution mandated by the Internal Revenue Service ("IRS"). The Company made matching contributions in the amount of \$14.6 million, \$9.3 million, and \$5.1 million for the years ended December 31, 2022, 2021, and 2020, respectively.

### **14. Joint Venture**

In February 2019, the Company entered into a joint venture agreement with Songhua River Investment Limited ("Songhua"), an affiliate of Tencent Holdings Ltd. ("Tencent Holdings"), to create Roblox China Holding Corp. (in which Roblox holds a 51% ownership interest as it relates to the voting shares). Songhua contributed \$50 million in capital in exchange for a 49% ownership interest in Roblox China Holding Corp. The business of the joint venture (either directly or indirectly through the joint venture's wholly owned subsidiaries) is to engage in the (i) development, localization, and licensing of the Roblox application to Shenzhen Tencent Computer Systems Co., Ltd. for operation and publication as a game in China, and (ii) development, localization, and licensing to creators of a Chinese version of the Roblox Studio and to oversee relations with local Chinese developers.

The joint venture is consolidated into the Company's consolidated financial statements as the Company maintains a controlling financial interest through voting rights, while the minority member of the joint venture does not have substantive participating rights or veto rights. The Company classifies the 49% ownership interest held by Songhua as a noncontrolling interest on its consolidated balance sheet.

### **15. Income Taxes**

The Company is in a consolidated net loss position and no material income tax benefits or expense were recorded for the years ended December 31, 2022, 2021, and 2020.

The components of loss before income taxes were as follows (in thousands):

	Year Ended December 31,		
	2022	2021	2020
Domestic	\$ (916,592)	\$ (472,141)	\$ (244,395)
Foreign	(13,997)	(31,659)	(19,952)
	<u>\$ (930,589)</u>	<u>\$ (503,800)</u>	<u>\$ (264,347)</u>

The components of the provision for/(benefit from) income taxes were as follows (in thousands):

	Year Ended December 31,		
	2022	2021	2020
Current provision:			
Federal	\$ 144	\$ —	\$ —
State	2,405	678	10
Foreign	1,582	—	25
Total current provision	4,131	678	35
Deferred provision:			
Federal	(474)	(878)	(6,032)
State	(105)	(120)	(659)
Foreign	—	—	—
Total deferred provision	(579)	(998)	(6,691)
Provision for/(benefit from) income taxes	\$ 3,552	\$ (320)	\$ (6,656)

The provision for/(benefit from) income taxes differs from the amount estimated by applying the statutory income (loss) before taxes as follows:

	Year Ended December 31,		
	2022	2021	2020
Federal tax (benefit) at statutory rate	21 %	21 %	21 %
State tax (benefit) at statutory rate, net of federal benefit	2	2	1
Research and development credits	2	10	3
Change in valuation allowance	(21)	(117)	(21)
Stock-based compensation	(4)	84	0
Foreign rate differential	0	0	(2)
Other	0	0	1
Provision for/(benefit from) income taxes	0 %	0 %	3 %

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The following table presents the components of the Company's deferred tax assets (liabilities) for the periods presented (in thousands):

	December 31,		
	2022	2021	2020
<b>Deferred tax assets:</b>			
Accrued expenses	\$ 13,593	\$ 11,466	\$ 5,781
Deferred revenue	198,130	107,221	35,026
Net operating loss carryforwards	490,309	505,668	76,509
Tax credit carryforwards	85,527	65,855	17,052
Stock-based compensation	28,238	35,368	3,891
Operating lease liabilities	130,688	56,897	—
Capitalized research and development	178,488	—	—
Interest	—	1,556	—
Other	1,988	1,369	766
<b>Total gross deferred tax asset</b>	<b>1,126,961</b>	<b>785,400</b>	<b>139,025</b>
Less: valuation allowance	(907,226)	(711,297)	(122,328)
<b>Net deferred tax assets</b>	<b>219,735</b>	<b>74,103</b>	<b>16,697</b>
<b>Deferred tax liabilities:</b>			
Fixed assets	(92,009)	(13,889)	(10,934)
Intangible assets	(6,694)	(9,060)	(5,763)
Operating lease right-of-use assets	(121,032)	(51,154)	—
<b>Total deferred tax liabilities</b>	<b>(219,735)</b>	<b>(74,103)</b>	<b>(16,697)</b>
<b>Net deferred taxes</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>

We have not provided U.S. income taxes or foreign withholding taxes on the undistributed earnings of our profitable foreign subsidiaries because we intend to permanently reinvest such earnings in foreign operations. As of December 31, 2022 and December 31, 2021, the cumulative amount of earnings upon which income taxes have not been provided is not material.

The Company accounts for deferred taxes under ASC 740, *Income Taxes*, which requires a reduction of the carrying amounts of deferred tax assets by a valuation allowance if, based on available evidence, it is more likely than not that such assets will not be realized. Accordingly, the need to establish valuation allowances for deferred tax assets is assessed periodically based on the ASC 740 more-likely-than-not realization threshold criterion. This assessment considers matters such as future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies and results of recent operations. The evaluation of the recoverability of the deferred tax assets requires that all positive and negative evidence is weighed to reach a conclusion that it is more likely than not that all or some portion of the deferred tax assets will not be realized. The weight given to the evidence is commensurate with the extent to which it can be objectively verified. Due to our lack of U.S. earnings history, the net U.S. deferred tax assets have been fully offset by a valuation allowance.

The Company's valuation allowance increased by \$ 195.9 million, \$589.0 million, and \$57.9 million, in the years ended December 31, 2022, December 31, 2021, and December 31, 2020, respectively.

As of December 31, 2022, we had federal net operating loss carryforwards of \$ 2,026.6 million, which can be carried forward indefinitely, but are limited to 80% of taxable income, state net operating loss carryforwards of \$893.0 million, which begin to expire in 2023, and foreign net operating loss carryforwards of \$54.5 million, which begin to expire in 2024.

As of December 31, 2022, we had U.S. federal and California research and development tax credits of approximately \$ 112.4 million and \$76.3 million, respectively. The federal research and development credits begin to expire in 2030, while California credits do not expire.

Under Internal Revenue Code Section 382 ("Section 382"), an ownership change generally occurs if one or more stockholders or groups of stockholders who own at least 5% of our stock increase their ownership by more than 50 percentage points over their lowest ownership percentage within a rolling three-year period. Similar rules may apply under state tax laws. The Company did experience one or more ownership changes in financial periods ending on or before December 31, 2022. In this regard, the Company has determined that based on the timing of the ownership change and the corresponding Section 382 limitations, none of its net operating losses or other tax attributes appear to expire subject to such limitation.

A reconciliation of the beginning and ending amounts of unrecognized tax benefits is as follows (in thousands):

	As of December 31,		
	2022	2021	2020
<b>Unrecognized tax benefits at beginning of year</b>	\$ 72,919	\$ 19,386	\$ 10,121
Increases related to current year tax positions	25,458	53,440	8,998
Increases related to prior year tax positions	865	93	481
Decreases related to prior year tax positions	(2,870)	—	(215)
<b>Unrecognized tax benefits at end of year</b>	<b>\$ 96,372</b>	<b>\$ 72,919</b>	<b>\$ 19,386</b>

We classify uncertain tax positions as non-current liabilities unless expected to be paid within one year or otherwise directly related to an existing deferred tax asset, in which case the uncertain tax position is recorded as an offset to the deferred tax asset on the consolidated balance sheet. As of December 31, 2022, we had gross unrecognized tax benefits of approximately \$96.4 million, of which \$1.1 million would impact income tax expense if recognized. As of December 31, 2021, we had gross unrecognized tax benefits of approximately \$72.9 million. The Company does not anticipate any significant change within twelve months of this reporting date.

Our policy is to recognize interest and penalties related to income taxes as components of interest expense and other expense, respectively. The Company accrued interest and penalties of \$0.2 million related to unrecognized tax benefits as of December 31, 2022. The Company did not accrue interest and penalties related to unrecognized tax benefits as of December 31, 2021, and December 31, 2020.

The Company is subject to taxation in the United States, various states, and foreign jurisdictions, for which the statutes of limitations have not expired. All jurisdictions and tax years currently remain open for examination. As of December 31, 2022, the Company was not under examination by the IRS or any state or foreign tax jurisdiction.

On January 1, 2022, a provision of the Tax Cuts and Jobs Act of 2017 eliminated the option to deduct research and development expenditures and instead requires taxpayers to amortize such costs over five years. This change did not have a significant impact to the Company's provision for income tax for the year ended December 31, 2022 as the Company has net operating loss carryforwards to offset the impact of the change and maintains a full valuation allowance against its deferred tax assets. Further, the Company does not anticipate this change to have a significant impact to the provision for income tax for the year ended December 31, 2023 and will continue to evaluate the impact on its business in future periods.

#### 16. **Basic and Diluted Net Loss Per Common Share**

The following table presents the calculation of basic and diluted net loss per share (in thousands, except per share data):

	Year Ended December 31,		
	2022	2021	2020
<b>Basic and diluted net loss per share</b>			
Numerator			
Consolidated net loss	\$ (934,141)	\$ (503,480)	\$ (257,691)
Less: net loss attributable to the noncontrolling interest	(9,775)	(11,829)	(4,437)
Net loss attributable to common stockholders	<u>\$ (924,366)</u>	<u>\$ (491,651)</u>	<u>\$ (253,254)</u>
Denominator			
Weighted-average common shares used in computing net loss per share attributable to common stockholders, based and diluted	595,559	505,858	182,108
Net loss per share attributable to common stockholders, basic and diluted	<u>\$ (1.55)</u>	<u>\$ (0.97)</u>	<u>\$ (1.39)</u>

The potential shares of common stock that were excluded from the computation of diluted net loss per share for the period presented because including them would have been anti-dilutive are as follows (in thousands):

	As of December 31,		
	2022	2021	2020
Stock options outstanding	51,591	63,267	98,502
RSUs outstanding	30,322	14,684	3,061
2020 ESPP	2,311	523	—
Stock warrants outstanding	264	324	324
RSAs outstanding	500	468	388
Convertible preferred stock outstanding	—	—	337,235
Total	<u>84,988</u>	<u>79,266</u>	<u>439,510</u>

The CEO Long-Term Performance Award and 2022 PSU Grants were excluded from the above table because the respective stock price targets had not been met as of the periods presented.

#### 17. Geographic Information

For revenue by geographic area, based on the billing location of the Company's users, refer to Note 2, "Revenue from Contracts with Customers" to the notes to consolidated financial statements.

Long-lived assets, comprising property and equipment, net, by geographic area were as follows (in thousands):

	As of December 31,	
	2022	2021
United States	\$ 553,127	\$ 239,889
Rest of world	39,219	31,463
Total	<u>\$ 592,346</u>	<u>\$ 271,352</u>

**18. Subsequent Events**

On February 11, 2023, the Company executed a lease assignment as sub-lessee pursuant to which the Company will sublease approximately 179,496 square feet of office space in San Mateo, California for a lease term of approximately 7 years (the "Sub-Lessee Agreement"). Concurrent with the execution of the Sub-Lessee Agreement, the Company executed a sublease as sub-lessor pursuant to which it will sublease approximately 78,911 square feet of its San Mateo, California corporate headquarters to the sub-lessee for a lease term of approximately 4 years (the "Sub-Lessor Agreement"). Both the Sub-Lessee Agreement and Sub-Lessor Agreement are contingent upon each respective landlord's consent, amongst other contingencies.

The initial annual base rent under the Sub-Lessee Agreement ranges from approximately \$ 12.0 million to \$ 15.0 million over the term and the Company expects to take possession in the second quarter of 2023. The initial annual base rent due to the Company under the Sub-Lessor Agreement ranges from approximately \$4.0 million to \$6.0 million over the term and the Company expects to provide possession in the second or third quarter of 2023.



**Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosures**

None.

**Item 9A. Controls and Procedures****Evaluation of Disclosure Controls and Procedures**

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Annual Report on Form 10-K. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act), means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, our management recognizes that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable assurance that the objectives of the disclosure controls and procedures are met. Based on the evaluation of our disclosure controls and procedures as of December 31, 2022, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

**Management’s Report on Internal Control over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) of the Exchange Act. Under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer and oversight of our Audit & Compliance Committee, our management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework). Based on this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2022. Deloitte & Touche LLP, an independent registered public accounting firm, has issued an audit report with respect to the effectiveness of our internal control over financial reporting as of December 31, 2022, which is included in Item 8 of this Annual Report on Form 10-K.

**Changes in Internal Control**

There were no changes in our internal control over financial reporting identified in management’s evaluation pursuant to Rules 13a-15(d) or 15d-15(d) of the Exchange Act during the quarter ended December 31, 2022 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**Limitations on Effectiveness of Controls and Procedures**

In designing and evaluating the disclosure controls and procedures and internal control over financial reporting, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures and internal control over financial reporting must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

**Item 9B. Other Information**

None.

**Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspection**

Not applicable.

### Part III

#### **Item 10. Directors, Executive Officers and Corporate Governance**

Information responsive to this item is incorporated herein by reference to our definitive proxy statement with respect to our 2023 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

#### **Item 11. Executive Compensation**

Information responsive to this item is incorporated herein by reference to our definitive proxy statement with respect to our 2023 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

#### **Item 12. Security Ownership of Certain Beneficial Owner and Management and Related Stockholder Matters**

Information responsive to this item is incorporated herein by reference to our definitive proxy statement with respect to our 2023 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

#### **Item 13. Certain Relationships and Related Transactions, and Director Independence**

Information responsive to this item is incorporated herein by reference to our definitive proxy statement with respect to our 2023 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

#### **Item 14. Principal Accounting Fees and Services**

Information responsive to this item is incorporated herein by reference to our definitive proxy statement with respect to our 2023 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

## Part IV

### Item 15. Exhibits and Financial Statement Schedules

#### **Exhibits**

The exhibits listed below are filed as part of this Annual Report on Form 10-K or are incorporated herein by reference, in each case as indicated below.

#### **Financial Statement Schedules**

All financial statement schedules are omitted because the information called for is not required or is shown either in the consolidated financial statements or in the notes thereto.

### EXHIBIT INDEX

Exhibit Number	Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
3.1	<a href="#">Amended and Restated Certificate of Incorporation of the Registrant.</a>	10-Q	001-39763	3.1	May 13, 2021
3.2	<a href="#">Amended and Restated Bylaws of the Registrant.</a>	10-Q	001-39763	3.2	May 13, 2021
4.1	<a href="#">Form of Class A common stock certificate of the registrant.</a>	S-1/A	333-250204	4.1	January 8, 2021
4.2	<a href="#">Amended and Restated Investors' Rights Agreement among the registrant and certain holders of its capital stock, dated as of January 6, 2021.</a>	S-1/A	333-250204	4.2	January 8, 2021
4.3	<a href="#">Form of Common Stock Warrant issued in connection with an acquisition between the registrant, Jerome Boulon and CallStream, LLC.</a>	S-1/A	333-250204	4.3	January 8, 2021
4.4	<a href="#">Indenture, dated as of October 29, 2021, between the registrant and U.S. Bank National Association, as Trustee.</a>	8-K	001-39763	4.1	October 29, 2021
4.5	<a href="#">Form of 3.875% Senior Notes due 2030 (included in Exhibit 4. 4).</a>	8-K	001-39763	4.2	October 29, 2021
4.6	<a href="#">Description of Capital Stock.</a>	10-K	001-39763	4.8	February 25, 2022
10.1+	<a href="#">Form of Indemnification Agreement between the registrant and each of its directors and executive officers.</a>	S-1/A	333-250204	10.1	January 8, 2021
10.2*+	<a href="#">2020 Equity Incentive Plan, as amended, and related form agreements.</a>				
10.3+	<a href="#">Amended and Restated 2017 Equity Incentive Plan, as amended, and related form agreements.</a>	S-1/A	333-250204	10.4	January 8, 2021
10.4+	<a href="#">2004 Incentive Stock Plan, as amended, and related form agreements.</a>	S-1/A	333-250204	10.5	January 8, 2021
10.5+	<a href="#">2020 Employee Stock Purchase Plan, as amended, and related form agreements.</a>	S-1/A	333-250204	10.6	January 8, 2021
10.6	<a href="#">Form of Class B Exchange Agreement between the registrant and certain stockholders.</a>	S-1/A	333-250204	10.7	January 8, 2021
10.7+	<a href="#">Form of Change in Control and Severance Agreement, as amended and restated, between the registrant and each of its executive officers.</a>	10-K	001-39763	10.7	February 25, 2022
10.8	<a href="#">Outside Director Compensation Policy, as amended</a>	10-Q	001-39763	10.1	August 10, 2022
10.9+	<a href="#">Confirmatory Offer Letter by and between the registrant and David Baszucki dated March 3, 2021.</a>	10-Q	001-39763	10.6	May 13, 2021
10.10+	<a href="#">Confirmatory Offer Letter by and between the registrant and Craig Donato dated November 20, 2020.</a>	S-1/A	333-250204	10.11	January 8, 2021
10.11+	<a href="#">Confirmatory Offer Letter by and between the registrant and Michael Guthrie dated November 20, 2020.</a>	S-1/A	333-250204	10.12	January 8, 2021

10.12+	<a href="#">Confirmatory Offer Letter by and between the registrant and Barbara Messing dated November 20, 2020.</a>	S-1/A	333-250204	10.13	January 8, 2021
10.13+	<a href="#">Confirmatory Offer Letter by and between the registrant and Daniel Sturman dated November 20, 2020.</a>	S-1/A	333-250204	10.14	January 8, 2021
10.14+	<a href="#">Confirmatory Offer Letter by and between the registrant and Mark Reinstra dated November 20, 2020.</a>	S-1/A	333-250204	10.15	January 8, 2021
10.15+	<a href="#">Offer Letter by and between the registrant and Manuel Bronstein, dated as of January 31, 2021.</a>	10-Q	001-39763	10.4	May 13, 2021
10.16+	<a href="#">Offer Letter, by and between the registrant and Amy Rawlings, dated as of July 15, 2022.</a>	10-Q	001-39763	10.1	November 9, 2022
21.1*	<a href="#">List of subsidiaries.</a>				
23.1*	<a href="#">Consent of independent registered public accounting firm.</a>				
24.1*	<a href="#">Power of Attorney. Reference is made to the signature page.</a>				
31.1*	<a href="#">Certification of the Principal Executive Officer pursuant to Exchange Act Rule 13a-14 as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</a>				
31.2*	<a href="#">Certification of the Principal Financial Officer pursuant to Exchange Act Rule 13a-14 as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</a>				
32.1†	<a href="#">Certification of the Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes Oxley Act of 2002.</a>				
101.INS*	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.				
101.SCH*	Inline XBRL Taxonomy Extension Schema Document.				
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document.				
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document.				
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document.				
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document.				
104*	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101).				

\* Filed herewith.

+ Indicates management contract or compensatory plan.

† The certifications furnished in Exhibit 32.1 hereto are deemed to accompany this Annual Report on Form 10-K are not deemed filed with the SEC and are not to be incorporated by reference into any filing of the Registrant under the Securities Act of 1933, as amended (the "Exchange Act"), whether made before or after the date of this Annual Report on Form 10-K.

#### Item 16. Form 10-K Summary

None.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in San Mateo, California, on the 28th day of February, 2023.

### Roblox Corporation

By: /s/ David Baszucki  
David Baszucki  
Founder, President and Chief Executive Officer

## POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints David Baszucki, Michael Guthrie, and Mark Reinstra, and each one of them, as their true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for them and in their name, place, and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ David Baszucki</u> David Baszucki	Founder, President, Chief Executive Officer and Chair of Board of Directors <i>(Principal Executive Officer)</i>	February 28, 2023
<u>/s/ Michael Guthrie</u> Michael Guthrie	Chief Financial Officer <i>(Principal Financial Officer)</i>	February 28, 2023
<u>/s/ Amy Rawlings</u> Amy Rawlings	Chief Accounting Officer <i>(Principal Accounting Officer)</i>	February 28, 2023
<u>/s/ Gregory Baszucki</u> Gregory Baszucki	Director	February 28, 2023
<u>/s/ Christopher Carvalho</u> Christopher Carvalho	Director	February 28, 2023
<u>/s/ Anthony P. Lee</u> Anthony P. Lee	Director	February 28, 2023
<u>/s/ Andrea Wong</u> Andrea Wong	Director	February 28, 2023
<u>/s/ Gina Mastantuono</u> Gina Mastantuono	Director, Audit and Compliance Committee Chair	February 28, 2023