

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2022
OR

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

FOR THE TRANSITION PERIOD FROM _____ TO _____
Commission File Number 001-36164

Twitter, Inc.

(Exact name of registrant as specified in its charter)

Delaware

20-8913779

(State or other jurisdiction of
incorporation or organization)

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

1355 Market Street, Suite 900
San Francisco, California 94103
(Address of principal executive offices and Zip Code)
(415) 222-9670
(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
Common Stock, par value \$0.000005 per share	TWTR	New York Stock Exchange
Preferred Stock Purchase Rights	N/A	New York Stock Exchange

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 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.

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 is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES NO

The number of shares of the registrant's common stock outstanding as of April 22, 2022 was 764,180,688.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, 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 “may,” “will,” “should,” “expects,” “plans,” “anticipates,” “could,” “intends,” “target,” “projects,” “contemplates,” “believes,” “estimates,” “predicts,” “potential” 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 Quarterly Report on Form 10-Q include, but are not limited to, statements about:

- our proposed acquisition by entities affiliated with Elon Musk, including our expectations regarding the timing and completion thereof;
- our ability to attract and retain people on Twitter and increase their level of engagement, including ad engagement, and its impact on revenue;
- our expectations regarding our revenue growth, including the impact of COVID-19, Apple’s App Tracking Transparency policy, and the war in Ukraine, and our cost and expenses growth;
- our expectations regarding our monetizable daily active usage or users (mDAU), mDAU growth and growth rates and related opportunities, as well as the continued usage of our website and mobile applications, including the impact of seasonality;
- our plans regarding health and safety and our other top priorities, including our expectations regarding the impact on our reported metrics, policies, enforcement and preventing manipulation of our platform;
- the impact of the COVID-19 pandemic and related responses of businesses and governments to the pandemic on our operations and personnel, and on commercial activity and advertiser demand across our platform and on our operating results;
- our ability to develop or acquire new products, product features and services, improve our existing products and services, including with respect to Promoted Products, video and performance advertising, and increase the value of our products and services;
- our business strategies, plans and priorities, our plans for headcount growth, investment in our research and development efforts, investment in capital expenditures, and our plans to scale capacity and enhance capability and reliability of our infrastructure and new data center;
- our ability to provide new content from third parties, including our ability to secure video content on terms that are acceptable to us;
- our ability to attract advertisers to our platforms, products and services and increase the amount that advertisers spend with us;
- our ability to improve monetization of our products and services;
- our future financial performance, including trends in ad engagements and cost per ad engagement, revenue, costs and expenses (including stock-based compensation) and income taxes;
- our expectations regarding certain deferred tax assets and fluctuations in our tax expense and cash taxes;
- the impact of laws and regulations relating to privacy, data protection, cybersecurity, content or copyright;
- our expectations regarding outstanding litigation or the decisions of the courts;

- the effects of seasonal trends on our results of operations;
- the impact of our future transactions and corporate structuring on our income and other taxes;
- our expectations regarding our future share repurchases;
- the sufficiency of our cash and cash equivalents, short-term investment balance and credit facility together with cash generated from operations and continued access to capital markets to meet our working capital, capital expenditure, and other cash requirements including authorized share repurchases;
- our ability to timely and effectively develop, invest in, scale and adapt our existing technology and network infrastructure;
- our ability to successfully acquire and integrate companies and assets;
- the impact of geopolitical events, including the war in Ukraine; and
- our expectations regarding international operations and foreign exchange gains and losses.

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

You should not rely upon forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this Quarterly Report on Form 10-Q primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, operating results, cash flows or prospects. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties and other factors described in the section titled "Risk Factors" and elsewhere in this Quarterly Report on Form 10-Q. 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 Quarterly Report on Form 10-Q. 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.

The forward-looking statements made in this Quarterly Report on Form 10-Q 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 Quarterly Report on Form 10-Q to reflect events or circumstances after the date of this Quarterly Report on Form 10-Q or to reflect new information or the occurrence of unanticipated events, 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.

NOTE REGARDING KEY METRICS

We review a number of metrics, including monetizable daily active usage or users (mDAU), changes in ad engagements and changes in cost per ad engagement, to evaluate our business, measure our performance, identify trends affecting our business, formulate business plans and make strategic decisions. See the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations— Key Metrics” for a discussion of how we calculate mDAU, changes in ad engagements and changes in cost per ad engagement.

We define mDAU as people, organizations, or other accounts who logged in or were otherwise authenticated and accessed Twitter on any given day through twitter.com, Twitter applications that are able to show ads, or paid Twitter products, including subscriptions. Average mDAU for a period represents the number of mDAU on each day of such period divided by the number of days for such period. Changes in mDAU are a measure of changes in the size of our daily logged in or otherwise authenticated active total accounts. To calculate the year-over-year change in mDAU, we subtract the average mDAU for the three months ended in the previous year from the average mDAU for the same three months ended in the current year and divide the result by the average mDAU for the three months ended in the previous year. Additionally, our calculation of mDAU is not based on any standardized industry methodology and is not necessarily calculated in the same manner or comparable to similarly titled measures presented by other companies. Similarly, our measures of mDAU growth and engagement may differ from estimates published by third parties or from similarly-titled metrics of our competitors due to differences in methodology.

The numbers of mDAU presented in this Quarterly Report on Form 10-Q are based on internal company data. While these numbers are based on what we believe to be reasonable estimates for the applicable period of measurement, there are inherent challenges in measuring usage and engagement across our large number of total accounts around the world. Furthermore, our metrics may be impacted by our information quality efforts, which are our overall efforts to reduce malicious activity on the service, inclusive of spam, malicious automation, and fake accounts. For example, there are a number of false or spam accounts in existence on our platform. We have performed an internal review of a sample of accounts and estimate that the average of false or spam accounts during the first quarter of 2022 represented fewer than 5% of our mDAU during the quarter. The false or spam accounts for a period represents the average of false or spam accounts in the samples during each monthly analysis period during the quarter. In making this determination, we applied significant judgment, so our estimation of false or spam accounts may not accurately represent the actual number of such accounts, and the actual number of false or spam accounts could be higher than we have estimated. We are continually seeking to improve our ability to estimate the total number of spam accounts and eliminate them from the calculation of our mDAU, and have made improvements in our spam detection capabilities that have resulted in the suspension of a large number of spam, malicious automation, and fake accounts. We intend to continue to make such improvements. After we determine an account is spam, malicious automation, or fake, we stop counting it in our mDAU, or other related metrics. We also treat multiple accounts held by a single person or organization as multiple mDAU because we permit people and organizations to have more than one account. Additionally, some accounts used by organizations are used by many people within the organization. As such, the calculations of our mDAU may not accurately reflect the actual number of people or organizations using our platform.

In addition, geographic location data collected for purposes of reporting the geographic location of our mDAU is based on the IP address or phone number associated with the account when an account is initially registered on Twitter. The IP address or phone number may not always accurately reflect a person’s actual location at the time they engaged with our platform. For example, someone accessing Twitter from the location of the proxy server that the person connects to rather than from the person’s actual location.

We regularly review and may adjust our processes for calculating our internal metrics to improve their accuracy.

PART I — FINANCIAL INFORMATION

Item 1. Financial Statements

TWITTER, INC.
CONSOLIDATED BALANCE SHEETS
(In thousands, except par value)
(Unaudited)

	March 31, 2022	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	\$ 2,283,308	\$ 2,186,549
Short-term investments	3,978,645	4,207,133
Accounts receivable, net of allowance for doubtful accounts of \$13,947 and \$15,278	948,142	1,217,404
Prepaid expenses and other current assets	265,973	266,484
Assets held for sale	—	40,800
Total current assets	7,476,068	7,918,370
Property and equipment, net	2,150,581	2,082,160
Operating lease right-of-use assets	1,272,435	1,195,124
Intangible assets, net	59,725	69,324
Goodwill	1,298,462	1,301,520
Deferred tax assets, net	941,883	1,148,573
Other assets	351,803	344,445
Total assets	<u>\$ 13,550,957</u>	<u>\$ 14,059,516</u>
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	\$ 189,524	\$ 203,171
Accrued and other current liabilities	738,778	918,350
Operating lease liabilities, short-term	208,405	222,346
Total current liabilities	1,136,707	1,343,867
Convertible notes, long-term	3,561,067	3,559,023
Senior notes, long-term	1,683,114	693,996
Operating lease liabilities, long-term	1,173,879	1,071,209
Deferred and other long-term tax liabilities, net	41,227	40,691
Other long-term liabilities	50,047	43,531
Total liabilities	<u>7,646,041</u>	<u>6,752,317</u>
Commitments and contingencies (Note 15)		
Stockholders' equity:		
Preferred stock, \$0.000005 par value-- 200,000 shares authorized; none issued and outstanding	—	—
Common stock, \$0.000005 par value-- 5,000,000 shares authorized; 763,578 and 799,384 shares issued and outstanding	4	4
Additional paid-in capital	6,677,294	8,432,112
Treasury stock, at cost-- 0 and 120 shares	—	(5,295)
Accumulated other comprehensive loss	(155,522)	(117,320)
Accumulated deficit	(616,860)	(1,002,302)
Total stockholders' equity	<u>5,904,916</u>	<u>7,307,199</u>
Total liabilities and stockholders' equity	<u>\$ 13,550,957</u>	<u>\$ 14,059,516</u>

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

TWITTER, INC.
CONSOLIDATED STATEMENTS OF INCOME
(In thousands, except per share data)
(Unaudited)

	Three Months Ended March 31,	
	2022	2021
Revenue	\$ 1,200,984	\$ 1,036,018
Costs and expenses		
Cost of revenue	507,450	381,008
Research and development	371,695	250,709
Sales and marketing	299,809	234,592
General and administrative	149,863	117,527
Total costs and expenses	1,328,817	983,836
Income (loss) from operations	(127,833)	52,182
Interest expense	(15,444)	(13,185)
Interest income	7,962	11,001
Other income (expense), net	(6,506)	6
Gain on sale of asset group	970,474	—
Income before income taxes	828,653	50,004
Provision (benefit) for income taxes	315,367	(18,001)
Net income	\$ 513,286	\$ 68,005
Net income per share:		
Basic	\$ 0.66	\$ 0.09
Diluted	\$ 0.61	\$ 0.08
Numerator used to compute net income per share:		
Basic	\$ 513,286	\$ 68,005
Diluted	\$ 515,313	\$ 68,005
Weighted-average shares used to compute net income per share:		
Basic	778,937	795,633
Diluted	838,590	872,187

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

TWITTER, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In thousands)
(Unaudited)

	Three Months Ended March 31,	
	2022	2021
Net income	\$ 513,286	\$ 68,005
Other comprehensive loss, net of tax:		
Change in unrealized loss on investments in available-for-sale securities	(32,177)	(11,018)
Change in foreign currency translation adjustment	(6,025)	(19,820)
Net change in accumulated other comprehensive loss	(38,202)	(30,838)
Comprehensive income	\$ 475,084	\$ 37,167

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

TWITTER, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands)
(Unaudited)

	Three Months Ended March 31,			
	2022		2021	
	Shares	Amount	Shares	Amount
Common stock				
Balance, beginning of period	799,384	\$ 4	796,000	\$ 4
Issuance of common stock in connection with RSU vesting	4,121	—	4,400	—
Exercise of stock options	5	—	523	—
Shares withheld related to net share settlement of equity awards	(114)	—	(155)	—
Repurchases of common stock	(39,788)	—	(2,723)	—
Other activities	(30)	—	38	—
Balance, end of period	763,578	\$ 4	798,083	\$ 4
Additional paid-in capital				
Balance, beginning of period	—	\$ 8,432,112	—	\$ 9,167,138
Exercise of stock options	—	77	—	1,957
Shares withheld related to net share settlement of equity awards	—	(4,190)	—	(10,569)
Stock-based compensation	—	199,210	—	125,399
Purchase of convertible note hedge	—	—	—	(213,469)
Tax related to purchase of convertible note hedge	—	—	—	49,262
Issuance of warrants	—	—	—	161,144
Repurchases of common stock	—	(1,349,915)	—	(161,552)
Purchase of forward contract under accelerated share repurchase agreements	—	(600,000)	—	—
Cumulative-effect adjustment from adoption of new accounting standard	—	—	—	(567,547)
Balance, end of period	—	\$ 6,677,294	—	\$ 8,551,763
Treasury stock				
Balance, beginning of period	—	\$ (5,295)	—	\$ (5,297)
Retirement of treasury stock	—	5,295	—	5,297
Repurchases of common stock	—	—	—	(5,297)
Balance, end of period	—	\$ —	—	\$ (5,297)
Accumulated other comprehensive loss				
Balance, beginning of period	—	\$ (117,320)	—	\$ (66,094)
Other comprehensive loss	—	(38,202)	—	(30,838)
Balance, end of period	—	\$ (155,522)	—	\$ (96,932)
Accumulated deficit				
Balance, beginning of period	—	\$ (1,002,302)	—	\$ (1,125,669)
Repurchases of common stock	—	(127,844)	—	—
Cumulative-effect adjustment from adoption of new accounting standard	—	—	—	344,776
Net income	—	513,286	—	68,005
Balance, end of period	—	\$ (616,860)	—	\$ (712,888)
Total stockholders' equity	763,578	\$ 5,904,916	798,083	\$ 7,736,650

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

TWITTER, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(Unaudited)

	Three Months Ended March 31,	
	2022	2021
Cash flows from operating activities		
Net income	\$ 513,286	\$ 68,005
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization expense	160,283	131,052
Stock-based compensation expense	177,263	110,873
Bad debt expense	(709)	(1,405)
Deferred income taxes	190,707	(23,873)
Gain on sale of asset group	(970,474)	—
Other adjustments	5,992	4,739
Changes in assets and liabilities, net of assets acquired and liabilities assumed from acquisitions:		
Accounts receivable	190,737	189,297
Prepaid expenses and other assets	(48,836)	(80,989)
Operating lease right-of-use assets	66,054	49,246
Accounts payable	(35,610)	(24,808)
Accrued and other liabilities	(67,953)	6,382
Operating lease liabilities	(54,649)	(38,335)
Net cash provided by operating activities	<u>126,091</u>	<u>390,184</u>
Cash flows from investing activities		
Purchases of property and equipment	(163,174)	(181,181)
Proceeds from sales of property and equipment	2,482	1,835
Purchases of marketable securities	(1,100,837)	(1,370,830)
Proceeds from maturities of marketable securities	697,351	1,221,461
Proceeds from sales of marketable securities	590,593	1,067,603
Purchases of investments in privately-held companies	(5,014)	(30,867)
Proceeds from sale of asset group	1,050,000	—
Investments in Finance Justice Fund	(6,500)	(10,200)
Business combinations, net of cash acquired	—	(8,378)
Other investing activities	—	(9,085)
Net cash provided by investing activities	<u>1,064,901</u>	<u>680,358</u>
Cash flows from financing activities		
Proceeds from issuance of convertible notes	—	1,437,500
Proceeds from issuance of senior notes	1,000,000	—
Purchases of convertible note hedges	—	(213,469)
Proceeds from issuance of warrants concurrent with note hedges	—	161,144
Debt issuance costs	(11,270)	(16,769)
Repurchases of common stock	(2,077,759)	(161,552)
Taxes paid related to net share settlement of equity awards	(4,190)	(10,569)
Payments of finance lease obligations	—	(565)
Proceeds from exercise of stock options	66	1,958
Net cash provided by (used in) financing activities	<u>(1,093,153)</u>	<u>1,197,678</u>
Net increase in cash, cash equivalents and restricted cash	97,839	2,268,220
Foreign exchange effect on cash, cash equivalents and restricted cash	(814)	(8,018)
Cash, cash equivalents and restricted cash at beginning of period	2,210,685	2,011,276
Cash, cash equivalents and restricted cash at end of period	<u>\$ 2,307,710</u>	<u>\$ 4,271,478</u>
Supplemental disclosures of non-cash investing and financing activities		
Changes in accrued property and equipment purchases	\$ 36,166	\$ 57,030
Reconciliation of cash, cash equivalents and restricted cash as shown in the consolidated statements of cash flows		
Cash and cash equivalents	\$ 2,283,308	\$ 4,248,702
Restricted cash included in prepaid expenses and other current assets	8,139	3,516
Restricted cash included in other assets	16,263	19,260
Total cash, cash equivalents and restricted cash	<u>\$ 2,307,710</u>	<u>\$ 4,271,478</u>

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

TWITTER, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Note 1. Summary of Significant Accounting Policies

Basis of Presentation

The consolidated financial statements include the accounts of Twitter, Inc. and its wholly-owned subsidiaries (collectively, "Twitter" or the "Company"). All intercompany accounts and transactions have been eliminated in consolidation.

The unaudited consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America (GAAP). The unaudited interim consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements and reflect, in management's opinion, all adjustments of a normal, recurring nature that are necessary for the fair statement of the Company's financial position, results of operations and cash flows for the interim periods, but are not necessarily indicative of the results expected for the full fiscal year or any other period.

The interim consolidated financial statements and these related notes should be read in conjunction with the consolidated financial statements and related notes included in the Company's Annual Report on Form 10-K for the year ended December 31, 2021.

Prior Period Reclassifications

Certain prior period amounts have been reclassified to conform to the current period presentation.

Use of Estimates

The preparation of the Company's consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, as well as related disclosure of contingent assets and liabilities. Actual results could differ materially from the Company's estimates due to risks and uncertainties, including uncertainty in the current economic environment due to the global impact of the COVID-19 pandemic. To the extent that there are material differences between these estimates and actual results, the Company's financial condition or operating results will be affected. The Company bases its estimates on past experience and other assumptions that the Company believes are reasonable under the circumstances, and the Company evaluates these estimates on an ongoing basis.

Recent Accounting Pronouncements

There have been no recent accounting pronouncements or changes in accounting pronouncements during the three months ended March 31, 2022, as compared to the recent accounting pronouncements described in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2021, that are of significance or potential significance to the Company.

Significant Accounting Policies

There have been no material changes to the Company's significant accounting policies from its Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

Note 2. Revenue

Revenue Recognition

Revenue is recognized when the control of promised goods or services is transferred to customers at an amount that reflects the consideration to which the Company expects to be entitled to in exchange for those goods or services. The Company identifies its contracts with customers and all performance obligations within those contracts. The Company then determines the transaction price and allocates the transaction price to the performance obligations within the Company's contracts with customers, recognizing revenue when, or as the Company satisfies its performance obligations. While the majority of the Company's revenue transactions are based on standard business terms and conditions, the Company also enters into sales agreements with advertisers and data partners that sometimes involve multiple performance obligations and occasionally include non-standard terms or conditions.

Revenue by geography is based on the billing address of the customers. The following tables set forth revenue by services and revenue by geographic area (in thousands):

	Three Months Ended March 31,	
	2022	2021
Revenue by services:		
Advertising services	\$ 1,106,578	\$ 898,840
Subscription and other ⁽¹⁾	94,406	137,178
Total revenue	<u>\$ 1,200,984</u>	<u>\$ 1,036,018</u>

⁽¹⁾ To better reflect the Company's business opportunities, including the sale of MoPub and the launch of Twitter Blue, the name of "Data Licensing and Other Revenue" has been updated to "Subscription and Other Revenue". This revenue line includes subscription revenue from the Twitter Developer Platform, Twitter Blue, and other subscription-related offerings.

	Three Months Ended March 31,	
	2022	2021
Revenue by geographic area:		
United States	\$ 671,500	\$ 556,220
Japan	179,593	169,964
Rest of World	349,891	309,834
Total revenue	<u>\$ 1,200,984</u>	<u>\$ 1,036,018</u>

Contract Balances

The Company enters into contracts with its customers, which may give rise to contract liabilities (deferred revenue) and contract assets (unbilled revenue). The payment terms and conditions within the Company's contracts vary by the type and location of its customer and products or services purchased, the substantial majority of which are due in less than one year. When the timing of revenue recognition differs from the timing of payments made by customers, the Company recognizes either unbilled revenue (its performance precedes the billing date) or deferred revenue (customer payment is received in advance of performance).

Unbilled Revenue (Contract Assets)

The Company presents unbilled revenue on the consolidated balance sheets within prepaid expenses and other current assets and within other assets. The Company's contracts do not contain material financing components. The Company's unbilled revenue primarily consists of amounts that have yet to be billed under contracts with escalating fee structures. Specifically, because the Company generally recognizes revenue on a straight-line basis for data licensing arrangements with escalating fee structures, revenue recognized represents amounts to which the Company is contractually entitled; however, the revenue recognized exceeds the amounts the Company has a right to bill as of the period end, thus resulting in unbilled revenue.

Deferred Revenue (Contract Liabilities)

The Company presents deferred revenue primarily within accrued and other current liabilities on the consolidated balance sheets and there is not expected to be any material non-current contract liabilities given the Company's contracting provisions. The Company's deferred revenue balance primarily consists of cash payments due in advance of satisfying its performance obligations relating to data licensing contracts and performance obligations given to customers based on their spend relating to advertising contracts, for which the Company defers, as they represent material rights. The Company recognizes deferred revenue relating to its data licensing contracts on a straight-line basis over the period in which the Company provides data. The Company recognizes deferred revenue relating to its advertising contracts based on the amount of customer spend and the relative standalone selling price of the material rights.

The following table presents contract balances (in thousands):

	March 31, 2022	December 31, 2021
Unbilled revenue	\$ 35,930	\$ 44,880
Deferred revenue	\$ 67,194	\$ 79,414

The amount of revenue recognized in the three months ended March 31, 2022 that was included in the deferred revenue balance as of December 31, 2021 was \$52.7 million. This revenue consists primarily of revenue recognized as a result of the utilization of bonus ads inventory earned by and material rights provided to customers in prior periods and the satisfaction of the Company's performance obligations relating to data licensing contracts with advance cash payments.

The amount of revenue recognized from obligations satisfied (or partially satisfied) in prior periods was not material.

The decrease in the unbilled revenue balance from December 31, 2021 to March 31, 2022 was primarily attributable to differences between revenue recognized and amounts billed in the Company's data licensing arrangements with escalating fee structures due to recognizing such fees as revenue on a straight-line basis.

The decrease in the deferred revenue balance from December 31, 2021 to March 31, 2022 was primarily due to the delivery of bonus ads inventory and the satisfaction of the Company's performance obligations relating to data licensing contracts with advance cash payments, offset by bonus ads inventory offered to customers during the period for meeting certain spend targets and the receipt of advance payments for data licensing contracts.

Remaining Performance Obligations

As of March 31, 2022, the aggregate amount of the transaction price allocated to remaining performance obligations in contracts with an original expected duration exceeding one year is \$627.2 million. This total amount primarily consists of long-term data licensing contracts and excludes deferred revenue related to the Company's short-term advertising service arrangements. The Company expects to recognize this amount as revenue over the following time periods (in thousands):

	Remaining Performance Obligations			
	Total	Remainder of 2022	2023	2024 and Thereafter
Revenue expected to be recognized on remaining performance obligations	\$ 627,164	\$ 182,862	\$ 194,894	\$ 249,408

Note 3. Cash, Cash Equivalents and Short-term Investments

Cash, cash equivalents and short-term investments consist of the following (in thousands):

	March 31, 2022	December 31, 2021
Cash and cash equivalents:		
Cash	\$ 334,478	\$ 336,958
Money market funds	760,677	1,000,671
U.S. government and agency securities	99,972	—
Corporate notes, commercial paper and certificates of deposit	1,088,181	848,920
Total cash and cash equivalents	<u>\$ 2,283,308</u>	<u>\$ 2,186,549</u>
Short-term investments:		
U.S. government and agency securities	\$ 306,805	\$ 374,868
Corporate notes, commercial paper and certificates of deposit	3,669,368	3,829,123
Marketable equity securities	2,472	3,142
Total short-term investments	<u>\$ 3,978,645</u>	<u>\$ 4,207,133</u>

The contractual maturities of debt securities classified as available-for-sale as of March 31, 2022 were as follows (in thousands):

	March 31, 2022
Due within one year	\$ 2,504,096
Due after one year through five years	1,472,077
Total	<u>\$ 3,976,173</u>

The following tables summarize unrealized gains and losses related to available-for-sale debt securities classified as short-term investments on the Company's consolidated balance sheets (in thousands):

	March 31, 2022			
	Gross Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Aggregated Estimated Fair Value
U.S. government and agency securities	\$ 311,105	\$ —	\$ (4,300)	\$ 306,805
Corporate notes, commercial paper and certificates of deposit	3,703,202	498	(34,332)	3,669,368
Total available-for-sale debt securities classified as short-term investments	<u>\$ 4,014,307</u>	<u>\$ 498</u>	<u>\$ (38,632)</u>	<u>\$ 3,976,173</u>

	December 31, 2021			
	Gross Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Aggregated Estimated Fair Value
U.S. government and agency securities	\$ 376,966	\$ 12	\$ (2,110)	\$ 374,868
Corporate notes, commercial paper and certificates of deposit	3,832,983	4,873	(8,733)	3,829,123
Total available-for-sale debt securities classified as short-term investments	<u>\$ 4,209,949</u>	<u>\$ 4,885</u>	<u>\$ (10,843)</u>	<u>\$ 4,203,991</u>

The gross unrealized loss on available-for-sale debt securities in a continuous loss position for 12 months or longer was not material as of March 31, 2022 and December 31, 2021.

The Company evaluates whether the unrealized loss on available-for-sale debt securities is the result of the credit worthiness of the corporate notes it held, or other non-credit-related factors such as liquidity, by reviewing a number of factors such as the implied yield of the corporate note based on the market price, the nature of the invested entity's business or industry, market capitalization relative to debt, changes in credit ratings, and the market prices of the corporate notes subsequent to period end. As of March 31, 2022, the gross unrealized loss on available-for-sale debt securities was \$38.6 million. The unrealized losses were not determined to be credit-related, and there were no expected credit losses related to the Company's available-for-sale debt securities. As of March 31, 2022, no allowance for credit losses in short-term investments was recorded.

Note 4. Fair Value Measurements

The Company measures its cash equivalents, short-term investments and derivative financial instruments at fair value. The Company classifies its cash equivalents, short-term investments and derivative financial instruments within Level 1 or Level 2 because the Company values these investments using quoted market prices or alternative pricing sources and models utilizing market observable inputs. The fair value of the Company's Level 1 financial assets is based on quoted market prices of the identical underlying security. The fair value of the Company's Level 2 financial assets is based on inputs that are directly or indirectly observable in the market, including the readily-available pricing sources for the identical underlying security that may not be actively traded.

The following tables set forth the fair value of the Company's financial assets and liabilities measured at fair value on a recurring basis as of March 31, 2022 and December 31, 2021 based on the three-tier fair value hierarchy (in thousands):

	March 31, 2022		
	Level 1	Level 2	Total
Assets			
Cash equivalents:			
Money market funds	\$ 760,677	\$ —	\$ 760,677
U.S. government and agency securities	—	99,972	99,972
Commercial paper	—	1,076,175	1,076,175
Certificates of deposit	—	12,006	12,006
Short-term investments:			
U.S. government and agency securities	—	306,805	306,805
Corporate notes	—	2,163,942	2,163,942
Commercial paper	—	1,146,247	1,146,247
Certificates of deposit	—	359,179	359,179
Marketable equity securities	2,472	—	2,472
Other current assets:			
Foreign currency contracts	—	8,630	8,630
Total	\$ 763,149	\$ 5,172,956	\$ 5,936,105
Liabilities			
Other current liabilities:			
Foreign currency contracts	\$ —	\$ 5,322	\$ 5,322
Total	\$ —	\$ 5,322	\$ 5,322
	December 31, 2021		
	Level 1	Level 2	Total
Assets			
Cash equivalents:			
Money market funds	\$ 1,000,671	\$ —	\$ 1,000,671
Commercial paper	—	843,919	843,919
Certificates of deposit	—	5,001	5,001
Short-term investments:			
U.S. government and agency securities	—	374,868	374,868
Corporate notes	—	2,633,777	2,633,777
Commercial paper	—	953,103	953,103
Certificates of deposit	—	242,243	242,243
Marketable equity securities	3,142	—	3,142
Other current assets:			
Foreign currency contracts	—	7,849	7,849
Total	\$ 1,003,813	\$ 5,060,760	\$ 6,064,573
Liabilities			
Other current liabilities:			
Foreign currency contracts	\$ —	\$ 2,125	\$ 2,125
Total	\$ —	\$ 2,125	\$ 2,125

The following table sets forth the estimated fair value of the Company's convertible and senior notes outstanding as of March 31, 2022 based on the three-tier fair value hierarchy (in thousands):

	March 31, 2022		
	Level 2	Level 3	Total
\$1.15 billion in aggregate principal amount of 0.25% convertible senior notes due in 2024 (the 2024 Notes)	\$ 1,179,555	\$ —	\$ 1,179,555
\$1.0 billion in aggregate principal amount of 0.375% convertible senior notes due in 2025 (the 2025 Notes)	—	1,130,060	1,130,060
\$1.44 billion in aggregate principal amount of 0% convertible senior notes due in 2026 (the 2026 Notes)	1,220,438	—	1,220,438
\$700.0 million in aggregate principal amount of 3.875% senior notes due in 2027 (the 2027 Notes)	679,875	—	679,875
\$1.0 billion in aggregate principal amount of 5.000% senior notes due in 2030 (the 2030 Notes)	993,750	—	993,750
Total	\$ 4,073,618	\$ 1,130,060	\$ 5,203,678

The estimated fair value of the 2024 Notes, the 2026 Notes, the 2027 Notes, and the 2030 Notes is determined based on a market approach, using the estimated or actual bids and offers of the respective notes in an over-the-counter market on the last business day of the period. The estimated fair value of the 2025 Notes is determined based on a binomial model, using inputs including risk free rate, volatility and discount yield. Refer to Note 11 – Convertible Notes and Senior Notes for further details on the Notes.

Derivative Financial Instruments

The Company enters into foreign currency forward contracts with financial institutions to reduce the risk that its earnings may be adversely affected by the impact of exchange rate fluctuations on monetary assets or liabilities denominated in currencies other than the functional currency of a subsidiary. These contracts do not subject the Company to material balance sheet risk due to exchange rate movements because gains and losses on these derivatives are intended to offset gains and losses on the hedged foreign currency denominated assets and liabilities. These foreign currency forward contracts are not designated as hedging instruments.

The Company recognizes these derivative instruments as either assets or liabilities on the consolidated balance sheets at fair value based on a Level 2 valuation. The Company records changes in the fair value (i.e., gains or losses) of the derivatives in other income (expense), net in the consolidated statements of income. The notional principal of foreign currency contracts outstanding was equivalent to \$786.0 million and \$910.5 million as of March 31, 2022 and December 31, 2021, respectively.

The fair values of outstanding derivative instruments for the periods presented on a gross basis are as follows (in thousands):

	Balance Sheet Location	March 31, 2022	December 31, 2021
Assets			
Foreign currency contracts not designated as hedging instruments	Other current assets	\$ 8,630	\$ 7,849
Liabilities			
Foreign currency contracts not designated as hedging instruments	Other current liabilities	\$ 5,322	\$ 2,125

The Company recognized \$3.9 million and \$2.1 million of net losses on its foreign currency contracts in the three months ended March 31, 2022 and 2021, respectively.

Note 5. Property and Equipment, Net

The following tables set forth property and equipment, net by type and by geographic area for the periods presented (in thousands):

	March 31, 2022	December 31, 2021
Property and equipment, net		
Equipment	\$ 2,671,127	\$ 2,603,304
Furniture and leasehold improvements	517,020	470,678
Capitalized software	1,051,084	948,710
Construction in progress	225,472	261,267
Total	4,464,703	4,283,959
Less: Accumulated depreciation and amortization	(2,314,122)	(2,201,799)
Property and equipment, net	<u>\$ 2,150,581</u>	<u>\$ 2,082,160</u>

	March 31, 2022	December 31, 2021
Property and equipment, net:		
United States	\$ 2,100,821	\$ 2,038,597
International	49,760	43,563
Total property and equipment, net	<u>\$ 2,150,581</u>	<u>\$ 2,082,160</u>

Note 6. Operating Leases

The Company has operating leases primarily for office space and data center facilities. The Company subleases certain leased office space to third parties when it determines there is excess leased capacity. Operating lease right-of-use assets obtained in exchange for operating lease obligations were \$146.6 million and \$123.5 million in the three months ended March 31, 2022 and 2021, respectively.

Future lease payments under operating leases and sublease income as of March 31, 2022 were as follows (in thousands):

	Operating Leases	Sublease Income
Year Ending December 31,		
Remainder of 2022	\$ 210,209	\$ (3,302)
2023	234,934	(3,187)
2024	234,902	(1,725)
2025	229,758	(120)
2026	207,427	—
Thereafter	686,129	—
Total future lease payments (receipts)	1,803,359	<u>\$ (8,334)</u>
Less: leases not yet commenced	(229,432)	
Less: imputed interest	(191,643)	
Total operating lease liabilities	<u>\$ 1,382,284</u>	
Reconciliation of operating lease liabilities as shown on the consolidated balance sheets		
Operating lease liabilities, short-term	\$ 208,405	
Operating lease liabilities, long-term	1,173,879	
Total operating lease liabilities	<u>\$ 1,382,284</u>	

There were no other material changes in the Company's operating leases in the three months ended March 31, 2022, as compared to the disclosure in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

Note 7. Goodwill and Intangible Assets

The following table presents the goodwill activities for the periods presented (in thousands):

Goodwill	
Balance as of December 31, 2021	\$ 1,301,520
Other	(3,058)
Balance as of March 31, 2022	<u>\$ 1,298,462</u>

For each of the periods presented, gross goodwill balance equaled the net balance since no impairment charges have been recorded.

The following table presents the detail of intangible assets for the periods presented (in thousands):

	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
March 31, 2022:			
Patents and developed technologies	\$ 106,261	\$ (64,650)	\$ 41,611
Other	23,500	(5,386)	18,114
Total	<u>\$ 129,761</u>	<u>\$ (70,036)</u>	<u>\$ 59,725</u>
December 31, 2021:			
Patents and developed technologies	\$ 106,261	\$ (57,988)	\$ 48,273
Assembled workforce	23,500	(2,449)	21,051
Total	<u>\$ 129,761</u>	<u>\$ (60,437)</u>	<u>\$ 69,324</u>

Amortization expense associated with intangible assets was \$9.6 million and \$8.1 million for the three months ended March 31, 2022 and 2021, respectively.

Estimated future amortization expense as of March 31, 2022 is as follows (in thousands):

Remainder of 2022	\$ 21,667
2023	19,467
2024	6,673
2025	2,510
2026	2,410
Thereafter	6,998
Total	<u>\$ 59,725</u>

Note 8. Accrued and Other Current Liabilities

The following table presents the detail of accrued and other current liabilities for the periods presented (in thousands):

	March 31, 2022	December 31, 2021
Accrued compensation	\$ 261,051	\$ 325,113
Federal Trade Commission accrual (see Note 15)	—	150,000
Deferred revenue	64,404	78,541
Accrued operations and engineering costs	58,705	55,682
Accrued professional services	57,809	41,321
Accrued tax liabilities	54,294	47,830
Accrued publisher, content and ad network costs	46,083	45,025
Accrued other	196,432	174,838
Total	<u>\$ 738,778</u>	<u>\$ 918,350</u>

Note 9. Investments in Privately-Held Companies

The Company makes strategic investments in privately-held companies that primarily consist of non-marketable equity securities without readily determinable fair values. The Company evaluates each investee to determine if the investee is a variable interest entity and, if so, whether the Company is the primary beneficiary of the variable interest entity. The Company has determined, as of March 31, 2022, there were no variable interest entities required to be consolidated in the Company's consolidated financial statements. The Company's non-marketable equity securities had a combined carrying value of \$213.1 million and \$207.4 million as of March 31, 2022 and December 31, 2021, respectively. The maximum loss the Company can incur for its investments is their carrying value.

The Company periodically evaluates the carrying value of its investments in privately-held companies when events and circumstances indicate that the carrying amount of the investment may not be recovered. No impairment charges were recorded in the three months ended March 31, 2022 and 2021. The Company records upward adjustments for the difference between the fair value and carrying value of its investments in privately-held companies resulting from observable price changes in orderly transactions for identical or similar investments. No upward adjustments were recorded in the three months ended March 31, 2022 and 2021. As of March 31, 2022, the Company recorded cumulative upward adjustments of \$85.7 million on its investments in privately-held companies.

Note 10. Sale of Asset Group

On January 1, 2022, the Company completed the sale of certain assets that comprised its MoPub business to AppLovin Corporation for a total consideration of \$1.05 billion in cash. The assets sold, which were classified as assets held for sale on the consolidated balance sheets as of December 31, 2021, consisted only of goodwill. No liabilities were transferred in the transaction. The Company recorded a pre-tax gain of \$970.5 million on the sale of its MoPub asset group in the consolidated statements of income in the three months ended March 31, 2022. The gain represents the excess of the proceeds from the sale less the carrying value of the net assets sold and closing and transition service costs. The sale of MoPub enables the Company to focus on key areas of the business, including performance-based advertising, SMB offerings, and commerce initiatives on Twitter. The sale did not represent a strategic shift that would have a major effect on the Company's operations and financial results, and therefore did not qualify for reporting as a discontinued operation.

Note 11. Convertible Notes and Senior Notes

Senior Notes

In February 2022, the Company issued \$1.0 billion aggregate principal amount of 5.000% senior notes due 2030 (the 2030 Notes) in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended, and outside the United States pursuant to Regulation S under the Securities Act of 1933, as amended. The total net proceeds from this offering was approximately \$988.7 million, after deducting \$11.3 million of debt issuance costs.

The 2030 Notes represent senior unsecured obligations of the Company. The interest rate is fixed at 5.000% per annum and interest is payable semi-annually in arrears on March 1 and September 1 of each year, commencing on September 1, 2022. The 2030 Notes mature on March 1, 2030.

The Company may redeem the 2030 Notes, in whole or in part, at any time prior to December 1, 2029, at a price equal to 100% of the principal amount of the 2030 Notes plus a "make-whole" premium and accrued and unpaid interest, if any. On and after December 1, 2029, the Company may redeem the 2030 Notes at 100% of the principal amount of the 2030 Notes to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date.

In 2019, the Company issued \$700.0 million aggregate principal amount of 3.875% senior notes due 2027 (the 2027 Notes, which we refer to together with the 2030 Notes as the Senior Notes) in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended, and outside the United States pursuant to Regulation S under the Securities Act of 1933, as amended. The total net proceeds from this offering were approximately \$691.9 million, after deducting \$8.1 million of debt issuance costs in connection with the issuance of the 2027 Notes. The 2027 Notes represent senior unsecured obligations of the Company. The interest rate is fixed at 3.875% per annum and interest is payable semi-annually in arrears on June 15 and December 15 of each year, which commenced on June 15, 2020. The 2027 Notes mature on December 15, 2027.

If the Company experiences a change of control triggering event (as defined in the indenture governing the applicable series of Senior Notes), the Company must offer to repurchase such Senior Notes at a repurchase price equal to 101% of the principal amount of the Senior Notes to be repurchased, plus accrued and unpaid interest, if any, to, but excluding, the applicable repurchase date. A change of control triggering event occurs when a change of control (as defined in the indenture governing the applicable Senior Notes), including the Merger (as defined below), occurs accompanied or followed by a downgrade of the rating by each of Moody's Investors Service, Inc. and S&P Global Ratings of the applicable series of Senior Notes between the first public announcement of such change of control and ends on the 60th day following consummation of such change of control.

Pursuant to the terms of the Merger Agreement as defined below, the Company is required to use its commercially reasonable best efforts to, solely at the Parent's (as defined below) expense, cause the payoff, redemption, defeasance, discharge or other satisfaction of the Senior Notes on or subsequent to the effective time of the Merger.

Convertible Notes

In 2018, the Company issued \$1.15 billion aggregate principal amount of 0.25% convertible senior notes due 2024 (the 2024 Notes) in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended. The total net proceeds from this offering was approximately \$1.14 billion, after deducting \$12.3 million of debt issuance costs in connection with the 2024 Notes.

In 2020, the Company entered into an investment agreement (the Investment Agreement) with Silver Lake Partners V DE (AIV), L.P. (Silver Lake) relating to the issuance and sale to Silver Lake of \$1.0 billion in aggregate principal amount of the Company's 0.375% convertible senior notes due 2025 (the 2025 Notes). The total net proceeds from this offering was approximately \$985.3 million, after deducting \$14.7 million of debt issuance costs in connection with the 2025 Notes.

In 2021, the Company issued \$1.44 billion in aggregate principal amount of 0% convertible senior notes due 2026 (the 2026 Notes, which we refer to together with the 2024 Notes and the 2025 Notes as the Convertible Notes) in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended. The total net proceeds from this offering was approximately \$1.42 billion, after deducting \$16.8 million of debt issuance costs in connection with the 2026 Notes.

As described below, at the effective time of the Merger, holders of the Convertible Notes can require the Company (the surviving entity following the Merger) to repurchase their Notes at a repurchase price equal to 100% of the principal amount thereof, plus accrued and unpaid interest. Holders may also elect to surrender their Notes for conversion upon effectiveness of the Merger.

The Convertible Notes represent senior unsecured obligations of the Company. The interest rate of the 2024 Notes is fixed at 0.25% per annum and interest is payable semi-annually in arrears on June 15 and December 15 of each year. The interest rate of the 2025 Notes is fixed at 0.375% per annum and interest is payable semi-annually in arrears on March 15 and September 15 of each year. The 2026 Notes do not bear interest except in special circumstances described below, and the principal amount of the 2026 Notes does not accrete. The 2024 Notes, 2025 Notes, and 2026 Notes mature on June 15, 2024, March 15, 2025, and March 15, 2026, respectively.

Each \$1,000 of principal of the 2024 Notes, 2025 Notes, and 2026 Notes will initially be convertible into 17.5001 shares, 24.0964 shares, and 7.6905 shares, respectively, of the Company's common stock, which is equivalent to an initial conversion price of approximately \$57.14, \$41.50, and \$130.03 per share, respectively, in each case, subject to adjustment upon the occurrence of specified events set forth in the indenture governing such series of Convertible Notes.

Holders of the 2024 Notes may convert their 2024 Notes at their option at any time on or after March 15, 2024 until close of business on the second scheduled trading day immediately preceding the maturity date of June 15, 2024. Holders of the 2026 Notes may convert their 2026 Notes at their option at any time on or after December 15, 2025 until close of business on the second scheduled trading day immediately preceding the maturity date of March 15, 2026. The 2025 Notes are convertible at the option of the holder at any time until the scheduled trading day prior to the maturity date.

Holders of the 2024 Notes and 2026 Notes may convert all or any portion of their 2024 Notes or 2026 Notes at the option of such holder prior to March 15, 2024 for the 2024 Notes, and prior to the close of business on the business day immediately preceding December 15, 2025 for the 2026 Notes, under the following circumstances:

- 1) during any calendar quarter, if the last reported sale price of the common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price for the applicable series of Convertible Notes on each applicable trading day;
- 2) during the five business day period after any five consecutive trading day period (the measurement period) in which the trading price (as defined in the indenture governing the applicable series of Convertible Notes) per \$1,000 principal amount of such series of Convertible Notes for each trading day of the applicable measurement period was less than 98% of the product of the last reported sale price of Twitter's common stock and the conversion rate for the applicable series of Convertible Notes on each such trading day; or
- 3) upon the occurrence of certain specified corporate events, including fundamental changes (as defined in the indenture governing the applicable series of Convertible Notes) such as the Merger, as described below.

Upon conversion of the Convertible Notes, the Company will pay or deliver, as the case may be, cash, shares of its common stock or a combination of cash and shares of its common stock, at the Company's election. If the Company satisfies its conversion obligation solely in cash or through payment and delivery of a combination of cash and shares of its common stock, the amount of cash and shares of common stock, if any, due upon conversion, will be based on a daily conversion value (as defined in the indenture governing the applicable series of Convertible Notes) calculated on a proportionate basis for each trading day in the applicable 30 trading day observation period.

Upon delivery of a notice of a fundamental change, such as the Merger, holders of the Convertible Notes may surrender all or any portion of their Convertible Notes for conversion at any time after the effective date of the Merger or such other transaction until the related fundamental change repurchase date of such series of Convertible Notes. In addition, if specific corporate events, including the Merger, occur prior to the applicable maturity date of the 2024 Notes, 2025 Notes, or the 2026 Notes, the Company will be required to increase the conversion rate for holders who elect to convert their Convertible Notes in connection with such corporate events.

If a fundamental change, including the Merger, occurs prior to the applicable maturity date, holders of the 2024 Notes, 2025 Notes, or 2026 Notes, as applicable, will also have the right to require the Company to repurchase all or a portion of their Convertible Notes for cash at a repurchase price equal to 100% of the principal amount of such Convertible Notes, plus any accrued and unpaid interest to, but excluding, the repurchase date of such series of Convertible Notes.

On or after March 20, 2022, the 2025 Notes will be redeemable by the Company in the event that the closing sale price of the Company's common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which the Company provides the redemption notice at a redemption price of 100% of the principal amount of such 2025 Notes, plus accrued and unpaid interest to, but excluding, the redemption date.

Concurrent with the offering of the 2024 Notes and 2026 Notes, the Company entered into convertible note hedge transactions with certain bank counterparties whereby the Company has the option to purchase initially (subject to adjustment for certain specified events) a total of approximately 20.1 million shares of its common stock at a price of approximately \$57.14 per share for the 2024 Notes, and a total of approximately 11.1 million shares of its common stock at a price of approximately \$130.03 per share for the 2026 Notes. The total cost of the convertible note hedge transactions associated was \$268.0 million and \$213.5 million for the 2024 Notes and the 2026 Notes, respectively. In addition, the Company sold warrants to certain bank counterparties whereby the holders of the warrants have the option to purchase initially (subject to adjustment for certain specified events) a total of approximately 20.1 million shares of the Company's common stock at an initial strike price of \$80.20 per share for the 2024 Notes and a total of approximately 11.1 million shares of the Company's common stock at a price of \$163.02 per share for the 2026 Notes. The Company received \$186.8 million and \$161.1 million in cash proceeds from the sale of these warrants in connection with the 2024 Notes and 2026 Notes offerings, respectively.

Taken together, the purchase of the convertible note hedges and the sale of warrants are intended to offset any actual dilution from the conversion of the 2024 Notes and 2026 Notes and to effectively increase the overall conversion price from \$57.14 to \$80.20 per share for the 2024 Notes and from \$130.03 to \$163.02 per share for the 2026 Notes. As these transactions meet certain accounting criteria, the convertible note hedges and warrants are recorded in stockholders' equity and are not accounted for as derivatives. The net cost incurred in connection with the convertible note hedge and warrant transactions was recorded as a reduction to additional paid-in capital on the consolidated balance sheets as of March 31, 2022.

Convertible Notes and Senior Notes

The Notes consisted of the following (in thousands):

	March 31, 2022				
	2024 Notes	2025 Notes	2026 Notes	2027 Notes	2030 Notes
Principal amounts:					
Principal	\$ 1,150,000	\$ 1,000,000	\$ 1,437,500	\$ 700,000	\$ 1,000,000
Unamortized debt discount and issuance costs	(4,547)	(8,679)	(13,207)	(5,756)	(11,130)
Net carrying amount	\$ 1,145,453	\$ 991,321	\$ 1,424,293	\$ 694,244	\$ 988,870

	December 31, 2021			
	2024 Notes	2025 Notes	2026 Notes	2027 Notes
Principal amounts:				
Principal	\$ 1,150,000	\$ 1,000,000	\$ 1,437,500	\$ 700,000
Unamortized debt discount and issuance costs	(5,052)	(9,399)	(14,026)	(6,004)
Net carrying amount	\$ 1,144,948	\$ 990,601	\$ 1,423,474	\$ 693,996

In the three months ended March 31, 2022, the effective interest rate for the 2030 Notes was 5.24%. In the three months ended March 31, 2022 and 2021, the effective interest rate for the 2024 Notes, 2025 Notes, 2026 Notes, and 2027 Notes was 0.43%, 0.67%, 0.23%, and 4.08%, respectively. During the three months ended March 31, 2022 and 2021, the Company recognized \$2.4 million and \$2.2 million, respectively, of interest expense related to the amortization of debt discount and issuance costs prior to capitalization of interest. During the three months ended March 31, 2022 and 2021, the Company recognized \$13.3 million and \$10.7 million, respectively, of coupon interest expense. Future interest payments associated with the Notes total \$583.9 million, with \$59.5 million payable within the next 12 months.

As of March 31, 2022, the remaining life of the 2024 Notes, the 2025 Notes, the 2026 Notes, the 2027 Notes, and the 2030 Notes is approximately 26 months, 35 months, 47 months, 68 months, and 95 months, respectively.

The following table summarizes the aggregate future principal payments on the Company's Notes as of March 31, 2022 (in thousands):

	Convertible Notes	Senior Notes
Remainder of 2022	\$ —	\$ —
2023	—	—
2024	1,150,000	—
2025 ⁽¹⁾	1,000,000	—
2026	1,437,500	—
Thereafter	—	1,700,000
Total	<u>\$ 3,587,500</u>	<u>\$ 1,700,000</u>

⁽¹⁾ The 2025 Notes are convertible at the option of the holder at any time until the scheduled trading day prior to the maturity date, including in connection with a redemption by the Company.

Note 12. Net Income per Share

Basic net income per share is computed by dividing net income by the weighted-average common shares outstanding during the period. The weighted-average common shares outstanding is adjusted for shares subject to repurchase such as unvested restricted stock granted to employees in connection with acquisitions, contingently returnable shares and escrowed shares supporting indemnification obligations that are issued in connection with acquisitions and unvested stock options exercised.

Diluted net income per share is computed by dividing net income by the weighted-average number of common shares outstanding during the period, including potential dilutive securities. When the convertible notes are dilutive, interest expense, net of tax, is added back to net income to calculate diluted net income per share.

The following table presents the calculation of basic and diluted net income per share for periods presented (in thousands, except per share data):

	Three Months Ended March 31,	
	2022	2021
Basic net income per share:		
Numerator		
Net income	\$ 513,286	\$ 68,005
Denominator		
Weighted-average common shares outstanding	780,534	797,667
Weighted-average restricted stock subject to repurchase	(1,597)	(2,034)
Weighted-average shares used to compute basic net income per share	<u>778,937</u>	<u>795,633</u>
Basic net income per share	<u>\$ 0.66</u>	<u>\$ 0.09</u>
Diluted net income per share:		
Numerator		
Net income	\$ 513,286	\$ 68,005
Interest expense on convertible notes, net of tax	2,027	—
Numerator used to compute diluted net income per share	<u>515,313</u>	<u>68,005</u>
Denominator		
Number of shares used in basic computation	778,937	795,633
Weighted-average effect of dilutive securities:		
Convertible notes	55,277	55,277
RSUs	3,571	17,575
Stock options	224	756
Other	581	2,946
Weighted-average shares used to compute diluted net income per share	<u>838,590</u>	<u>872,187</u>
Diluted net income per share	<u>\$ 0.61</u>	<u>\$ 0.08</u>

The following numbers of potential common shares at the end of each period were excluded from the calculation of diluted net income per share because their effect would have been anti-dilutive for the periods presented (in thousands):

	Three Months Ended March 31,	
	2022	2021
Warrants	31,180	43,467
Convertible notes	—	12,287
RSUs	56,237	2,354
Shares subject to repurchase and others	43,119	392

In the three months ended March 31, 2022 and 2021, the 2024 Notes, the 2025 Notes, and the 2026 Notes were included in the computation of diluted income per share as the effect of including these shares in the calculation is dilutive. The 2021 Notes were not included in the computation of diluted income per share in the three months ended March 31, 2021 as the effect of including these shares in the calculation would have been anti-dilutive. The 2021 Notes were repaid at maturity in September 2021 and were not included in the calculation in the three months ended March 31, 2022.

If the average market price of the common stock exceeds the exercise price of the warrants, \$80.20 for the 2024 Notes and \$163.02 for the 2026 Notes, the warrants will have a dilutive effect on the earnings per share if the Company is profitable. Since the average market price of the common stock is below \$80.20 for all periods presented, the warrants are anti-dilutive.

Note 13. Stockholders' Equity

Equity Incentive Plans

The Company's 2013 Equity Incentive Plan serves as the successor to the 2007 Equity Incentive Plan. The number of shares of the Company's common stock available for issuance under the 2013 Equity Incentive Plan have been and will be increased on the first day of each fiscal year beginning with the 2014 fiscal year, in an amount equal to the least of (i) 60,000,000 shares, (ii) 5% of the outstanding shares on the last day of the immediately preceding fiscal year, or (iii) such number of shares determined by the Company's Board of Directors.

Share Repurchases

In March 2020, the Company's Board of Directors authorized a program to repurchase up to \$2.0 billion of the Company's common stock over time (the 2020 Repurchase Program). In February 2022, the Company's Board of Directors authorized a new \$4.0 billion share repurchase program (the 2022 Repurchase Program). The program became effective immediately and replaced the 2020 Repurchase Program. As part of the 2022 Repurchase Program, the Company entered into accelerated share repurchase agreements (the ASR Agreements) to repurchase \$2.0 billion of its common stock. The Company records the excess of the purchase price over par value to additional paid-in capital subject to certain limitations, with any remaining purchase price recorded to accumulated deficit.

In the three months ended March 31, 2022, the Company repurchased 1.9 million shares for an aggregate amount of \$71.5 million under the 2020 Repurchase Program. In connection with the ASR Agreements, the Company made a prepayment of \$2.0 billion and received an initial delivery of approximately 37.8 million shares of its common stock. The repurchased shares were immediately retired upon settlement and treated as a repurchase of common stock for purposes of calculating earnings per share. \$600.0 million of the prepayment was evaluated as an unsettled forward contract, classified within stockholders' equity. Under the terms of the ASR Agreements, the remaining shares, if any, are expected to be delivered in the third quarter of 2022. The number of shares that the Company will ultimately repurchase will be determined based on the volume-weighted average price of the Company's common stock over the term of the ASR Agreements, less an agreed upon discount.

Repurchases under the remaining authorization may be made from time to time through open market purchases or through privately negotiated transactions subject to market conditions, applicable legal requirements and other relevant factors. The 2022 Repurchase Program does not obligate the Company to acquire any particular amount of its common stock and may be suspended at any time at its discretion. The 2022 Repurchase Program does not have an expiration date.

Employee Stock Purchase Plan

The number of shares available for sale under the Employee Stock Purchase Plan (ESPP) has been and will be increased on the first day of each fiscal year beginning with the 2014 fiscal year, in an amount equal to the least of (i) 11.3 million shares; (ii) 1% of the outstanding shares of the Company's common stock as of the last day of the immediately preceding fiscal year; or (iii) such other amount as determined by the Company's Board of Directors.

Restricted Common Stock Activity

The Company has granted restricted common stock to certain continuing employees in connection with certain of its acquisitions. Vesting of this stock is dependent on the respective employee's continued employment at the Company during the requisite service period, which is generally up to four years from the issuance date, and the Company has the right to repurchase the unvested shares upon termination of employment. The fair value of the restricted common stock issued to employees is recorded as compensation expense on a straight-line basis over the requisite service period.

The Company had 1.4 million and 1.6 million shares of unvested restricted common stock as of March 31, 2022 and December 31, 2021, respectively. The Company's restricted common stock activity was not material during the three months ended March 31, 2022.

Stock Option Activity

The Company had 1.0 million shares of stock options outstanding each as of March 31, 2022 and December 31, 2021. The Company's stock option activity was not material during the three months ended March 31, 2022.

Performance Restricted Stock Units Activity

The Company grants restricted stock units to certain of its executive officers periodically that vest based on the Company's attainment of the annual financial performance goals and the executives' continued employment through the vesting date (PRSUs). These PRSUs are granted when the annual performance targets are set and the awards are approved by the Compensation Committee of the Board of Directors, generally in the first half of each financial year. The Company grants PRSUs with a vesting period of three years.

The following table summarizes the activity related to the Company's PRSUs for the three months ended March 31, 2022 (in thousands, except per share data):

	PRSUs Outstanding	
	Shares	Weighted-Average Grant-Date Fair Value Per Share
Unvested and outstanding at December 31, 2021	456	\$ 52.89
Additional earned performance shares related to 2021 grants	4	\$ 71.22
Vested	(202)	\$ 48.36
Forfeited or canceled	(22)	\$ 71.22
Unvested and outstanding at March 31, 2022	236	\$ 55.38

The total fair value of PRSUs vested during the three months ended March 31, 2022 and 2021 was \$7.2 million and \$9.4 million, respectively.

Market-based Restricted Stock Units Activity

The Company grants market-based restricted stock units to certain of its executive officers that vest based on Twitter stock price performance relative to a broad-market index or upon achievement of certain Twitter stock price targets over a performance period of up to five years and the executives' continued employment through the vesting date. The Company granted market-based RSUs with a vesting period of three to six years.

The following table summarizes the activity related to the Company's market-based restricted stock units for the three months ended March 31, 2022 (in thousands, except per share data):

	Market-based RSUs Outstanding	
	Shares	Weighted-Average Grant-Date Fair Value Per Share
Unvested and outstanding at December 31, 2021	2,921	\$ 31.64
Forfeited or canceled	(256)	\$ 34.85
Unvested and outstanding at March 31, 2022	2,665	\$ 31.33

The total fair value of market-based RSUs vested during the three months ended March 31, 2021 was \$17.2 million. The 2.7 million shares of market-based RSUs unvested and outstanding at March 31, 2022 represent the awards at the target level of achievement for the respective performance periods.

RSU Activity

The following table summarizes the activity related to the Company's restricted stock units (RSUs), excluding PRSUs and market-based RSUs, for the three months ended March 31, 2022. For purposes of this table, vested RSUs represent the shares for which the service condition had been fulfilled as of each respective date (in thousands, except per share data):

	RSUs Outstanding	
	Shares	Weighted-Average Grant-Date Fair Value Per Share
Unvested and outstanding at December 31, 2021	37,394	\$ 48.14
Granted	35,846	\$ 38.35
Vested	(3,919)	\$ 43.53
Canceled	(1,746)	\$ 48.23
Unvested and outstanding at March 31, 2022	67,575	\$ 43.22

The total fair value of RSUs vested during the three months ended March 31, 2022 and 2021 was \$149.8 million and \$220.7 million, respectively.

Stock-Based Compensation Expense

Stock-based compensation expense is allocated based on the cost center to which the award holder belongs. Total stock-based compensation expense by function is as follows (in thousands):

	Three Months Ended March 31,	
	2022	2021
Cost of revenue	\$ 12,880	\$ 8,732
Research and development	106,604	65,156
Sales and marketing	29,164	21,171
General and administrative	28,615	15,814
Total stock-based compensation expense	<u>\$ 177,263</u>	<u>\$ 110,873</u>

The Company capitalized \$18.7 million and \$14.5 million of stock-based compensation expense associated with the cost for developing software for internal use in the three months ended March 31, 2022 and 2021, respectively.

As of March 31, 2022, there was \$2.89 billion of gross unamortized stock-based compensation expense related to unvested awards which is expected to be recognized over a weighted-average period of 3.2 years. The Company accounts for forfeitures as they occur.

Note 14. Income Taxes

The Company's tax provision or benefit for income taxes for interim periods has generally been determined using an estimate of its annual effective tax rate, adjusted for discrete items, if any. Under certain circumstances where the Company is unable to make a reliable estimate of the annual effective tax rate, the accounting guidance permits the use of the actual effective tax rate for the year-to-date period. In the three months ended March 31, 2022, the Company used this approach because it was unable to reasonably estimate its annual effective tax rate due to the variability of the rate as a result of fluctuations in forecasted income and the effects of being taxed in multiple tax jurisdictions.

The Company recorded a provision for income taxes of \$315.4 million and a benefit from income taxes of \$18.0 million for the three months ended March 31, 2022 and 2021, respectively. For the three months ended March 31, 2022, the primary difference between the effective tax rate and the federal statutory tax rate relates to the gain on the sale of MoPub, described in Note 10 - Sale of Asset Group, being subject to higher foreign tax rates and U.S. global intangible low-taxed income. For the three months ended March 31, 2021, the primary difference between the effective tax rate and the federal statutory tax rate relates to foreign tax rate differences, tax deductions for stock-based compensation, and research and development credits.

As of March 31, 2022, the Company had \$941.9 million of deferred tax assets for which it had not established a valuation allowance. The Company had a valuation allowance of \$1.42 billion, primarily related to deferred tax assets of a foreign subsidiary, California and Massachusetts, and U.S. federal unrealized capital losses. The Company continues to reassess the ability to realize the deferred tax assets quarterly and, if future evidence allows for a partial or full release of the valuation allowance, a tax benefit will be recorded accordingly.

As of March 31, 2022, the Company had \$413.0 million of unrecognized tax benefits, of which \$317.5 million could result in a reduction of the Company's effective tax rate, if recognized. The remainder of the unrecognized tax benefits would not affect the effective tax rate due to the full valuation allowance recorded for California and Massachusetts deferred tax assets.

The Company is subject to taxation in the United States and various foreign jurisdictions. Earnings from non-U.S. activities are subject to local country income tax. The material jurisdictions where the Company is subject to potential examination by tax authorities include the United States, California and Ireland. The Company believes that it has reserved adequate amounts for these jurisdictions.

Note 15. Commitments and Contingencies

Credit Facility

The Company has a revolving credit agreement with certain lenders, which provides for a \$500.0 million unsecured revolving credit facility maturing on August 7, 2023. The Company is obligated to pay interest on loans under the credit facility and other customary fees for a credit facility of this size and type, including an upfront fee and an unused commitment fee. The interest rate for the credit facility is determined based on calculations using certain market rates as set forth in the credit agreement. In addition, the credit facility contains restrictions on payments including cash payments of dividends. In February 2022, the Company amended its existing revolving credit agreement to permit repurchases by the Company of its common stock in an aggregate amount not to exceed \$4.0 billion. As of March 31, 2022, no amounts had been drawn under the credit facility.

Contractual Obligations

The Company's principal commitments consist of obligations under the Notes (including principal and coupon interest), operating and finance leases for equipment, office space and co-located data center facilities, as well as non-cancellable contractual commitments.

During the three months ended March 31, 2022, the Company issued \$1.0 billion in aggregate principal amount of the 2030 Notes. As of March 31, 2022, the Company's contractual obligation to settle commitments related to the 2030 Notes is \$25.8 million for the remainder of the year ended December 31, 2022, \$50.0 million for each of the years ended December 31, 2023, 2024, 2025, and 2026, and \$1.18 billion in aggregate thereafter until the notes are repaid at maturity in the year ended December 31, 2030. Refer to Note 11 - Convertible Notes and Senior Notes for additional detail.

Other than as described above, there were no material changes outside the Company's normal course of business in its commitments under contractual obligations from those disclosed in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

Legal Proceedings

Beginning in September 2016, multiple putative class actions and derivative actions were filed in state and federal courts in the United States against the Company and the Company's directors and/or certain former officers alleging that false and misleading statements, made in 2015, are in violation of securities laws and breached fiduciary duty. The derivative actions were settled and fully resolved in 2021. The putative class actions were consolidated in the U.S. District Court for the Northern District of California and were scheduled for trial on September 20, 2021. In September 2021, prior to the start of the trial, the Company negotiated and entered into a binding agreement to settle the shareholder class action lawsuit. The proposed class action settlement resolves all claims asserted against the Company and the other named defendants in the shareholder class action lawsuit without any liability or wrongdoing attributed to them personally or to the Company. Under the terms of the proposed settlement, the Company paid the settlement amount of \$809.5 million from cash on hand in the fourth quarter of 2021. The settlement agreement is subject to final approval by the U.S. District Court for the Northern District of California.

Beginning in October 2019, putative class actions were filed in the U.S. District Court for the Northern District of California against the Company and certain of the Company's officers alleging violations of securities laws in connection with the Company's announcements that it had discovered and taken steps to remediate issues related to certain user settings designed to target advertising that were not working as expected and seeking unspecified damages. The Company disputes the claims and intends to defend the lawsuit vigorously. In December 2020, the district court dismissed the plaintiffs' claims. On March 23, 2022, the United States Court of Appeals for the Ninth Circuit affirmed the district court's decision dismissing the plaintiffs' claims.

From time to time the Company notifies the Irish Data Protection Commission, its designated European privacy regulator under the European Union General Data Protection Regulation (GDPR) and other regulators, of certain personal data breaches and privacy issues, and is subject to inquiries and investigations regarding various aspects of the Company's regulatory compliance. The Company is currently the subject of inquiries by the Irish Data Protection Commission with respect to its compliance with the GDPR.

On July 28, 2020, the Company received a draft complaint from the Federal Trade Commission (FTC) alleging violations of the Company's 2011 consent order with the FTC and the Federal Trade Commission Act. The allegations relate to the Company's use of phone number and/or email address data provided for safety and security purposes for targeted advertising during periods between 2013 and 2019. The Company estimated that the range of probable loss in the matter was \$150.0 million to \$250.0 million and recorded an accrual of \$150.0 million in the three months ended June 30, 2020. In March 2022, the Company and the FTC agreed in principle upon a penalty of \$150.0 million and the Company deposited this amount into escrow from cash on hand.

On January 15, 2021, a derivative action was filed in the Delaware Chancery Court against certain directors of the Company alleging that the directors violated their fiduciary duties in deciding to enter into the Cooperation Agreement with certain affiliates of Elliott Management Corporation, to enter into the Investment Agreement with an affiliate of Silver Lake Partners, and to authorize a program to repurchase up to \$2.0 billion of the Company's common stock. The Company and the directors dispute the claims and intend to defend the lawsuit vigorously. The defendants moved to dismiss the complaint on March 19, 2021 and on September 10, 2021, the Court denied defendants' motion to dismiss. On November 9, 2021, the Court granted a motion to stay the case for six months while a Special Litigation Committee of the Company's Board of Directors investigates the claims.

On February 22, 2021, a derivative action was filed in the Delaware Chancery Court against Jack Dorsey alleging that Mr. Dorsey violated his fiduciary duties relating to various alleged privacy and cybersecurity issues. The parties have agreed to a stay of this action pending the outcome of the Company's Board of Directors' investigation of the claims.

The Company is also currently involved in, and may in the future be involved in, legal proceedings, claims, investigations, and government inquiries and investigations arising in the ordinary course of business. These proceedings, which include both individual and class action litigation and administrative proceedings, have included, but are not limited to matters involving content on the platform or the Company's actions related thereto, intellectual property, privacy, data protection, consumer protection, securities, employment, and contractual rights. Legal fees and other costs associated with such actions are expensed as incurred.

The Company assesses, in conjunction with its legal counsel, the need to record a liability for litigation and contingencies. With respect to the cases, actions, and inquiries described above, the Company evaluates the associated developments on a regular basis and will accrue a liability when it believes a loss is probable and the amount can be reasonably estimated. In addition, the Company believes there is a reasonable possibility that it may incur a loss in some of these matters and the loss may be material or exceed its estimated ranges of possible loss. With respect to the matters described above that do not include an estimate of the amount of loss or range of possible loss, such losses or range of possible losses either are not material or may be material but cannot be estimated.

The outcomes of the matters described in this section, such as whether the likelihood of loss is remote, reasonably possible, or probable, or if and when the reasonably possible range of loss is estimable, are inherently uncertain. If one or more of these matters were resolved against the Company for amounts above management's estimates, the Company's financial condition and results of operations, including in a particular reporting period in which any such outcome becomes probable and estimable, could be materially adversely affected.

Non-Income Taxes

The Company is under various non-income tax audits by domestic and foreign tax authorities. These audits primarily revolve around routine inquiries, refund requests, and employee benefits. The Company accrues non-income taxes that may result from these audits when they are probable and can be reasonably estimated. Due to the complexity and uncertainty of some of these matters, however, as well as the judicial process in certain jurisdictions, the final outcome of these audits may be materially different from the Company's expectations.

Indemnification

In the ordinary course of business, the Company often includes standard indemnification provisions in its arrangements with its customers, partners, suppliers and vendors. Pursuant to these provisions, the Company may be obligated to indemnify such parties for losses or claims suffered or incurred in connection with its service, breach of representations or covenants, intellectual property infringement or other claims made against such parties. These provisions may limit the time within which an indemnification claim can be made. It is not possible to determine the maximum potential amount under these indemnification obligations due to the limited history of prior indemnification claims and the unique facts and circumstances involved in each particular agreement. The Company has never incurred significant expense defending its licensees against third-party claims, nor has it ever incurred significant expense under its standard service warranties or arrangements with its customers, partners, suppliers and vendors. Accordingly, the Company had no liabilities recorded for these provisions as of March 31, 2022 and December 31, 2021.

Note 16. Subsequent Events

Rights Plan

On April 15, 2022, the Company's Board of Directors authorized and declared a dividend distribution of one right (each, a "Right") for each outstanding share of the Company's common stock to stockholders of record as of the close of business on April 25, 2022. Each Right entitles the registered holder to purchase from the Company one one-thousandth of a share of Series A Participating Preferred Stock, par value \$0.000005 per share, of the Company at an exercise price of \$210.00, subject to adjustment. The complete terms of the Rights are set forth in a Preferred Stock Rights Agreement, dated as of April 15, 2022, between the Company and Computershare Trust Company, N.A., as rights agent (the Rights Agreement). The Rights expire on the earliest of (1) April 14, 2023, unless such date is extended, or (2) the redemption or exchange of the Rights as described above.

The Company's Board of Directors adopted the Rights Agreement to protect stockholders from coercive or otherwise unfair takeover tactics. In general terms, it works by imposing a significant penalty upon any person or group that acquires 15 percent or more of the shares of Common Stock without the approval of the Company's Board of Directors. As a result, the overall effect of the Rights Agreement and the issuance of the Rights may be to render more difficult or discourage a merger, tender or exchange offer or other business combination involving the Company that is not approved by the Company's Board of Directors. However, neither the Rights Agreement nor the Rights should interfere with any merger, tender or exchange offer or other business combination approved by the Company's Board of Directors.

On April 25, 2022, in connection with the execution of the Merger Agreement as described below, the Board approved Amendment No. 1 to the Rights Agreement (Amendment No. 1). Amendment No. 1 exempts the approval, execution, delivery or performance of the Merger Agreement, or the consummation prior to the termination of the Merger Agreement, of the Merger or any of the other transactions contemplated by the Merger Agreement in accordance with its terms, from, among other things, (i) resulting in a Distribution Date (as defined by the Rights Agreement) or permitting the Rights (as defined by the Rights Agreement) to be exercised or exchanged, and (ii) causing Parent, Acquisition Sub or their respective affiliates to be deemed an Acquiring Person (as defined by the Rights Agreement) for any purpose under the Rights Agreement.

As a result of the Amendment, the completion of the Merger in accordance with the terms of the Merger Agreement, will not trigger the terms of the Rights Plan.

Merger Agreement

On April 25, 2022, the Company entered into an Agreement and Plan of Merger (the Merger Agreement) with X Holdings I, Inc. (Parent), X Holdings II, Inc., a wholly owned subsidiary of Parent (Acquisition Sub), and, solely for the purpose of certain provisions of the Merger Agreement, Elon Musk. Parent and Acquisition Sub are affiliates of Elon Musk. The Merger Agreement provides that, subject to the terms and conditions set forth in the Merger Agreement, Acquisition Sub will merge with and into the Company (the Merger), with the Company surviving the Merger and becoming a wholly owned subsidiary of Parent (the Surviving Corporation). Under the Merger Agreement, at the effective time of the Merger, each issued and outstanding share of the Company's common stock (subject to certain exceptions set forth in the Merger Agreement) will be canceled and converted into the right to receive \$54.20 in cash, without interest (the Merger Consideration).

Consummation of the Merger is subject to the satisfaction or waiver of customary closing conditions, including: (1) approval of the Merger Agreement by the Company's stockholders; (2) the expiration or termination of the waiting period under the United States Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, and clearance under the antitrust and foreign investment laws of the United States and certain non-United States jurisdictions; and (3) the absence of any law or order by a governmental authority of the United States or certain non-United States jurisdictions that has the effect of rendering illegal or prohibiting the consummation of the Merger, or causing the Merger to be rescinded following the completion thereof.

The Merger Agreement contains certain termination rights for the Company and Parent. Upon termination of the Merger Agreement under specified limited circumstances, the Company will be required to pay Parent a termination fee of \$1.0 billion. Specifically, this termination fee is payable by the Company to Parent because (1) the Company terminates the Merger Agreement to allow the Company to enter into a definitive agreement for a competing acquisition proposal that constitutes a Superior Proposal (as defined in the Merger Agreement); or (2) Parent terminates the Merger Agreement because the Company's board of directors recommends that the Company's stockholders vote against the adoption of the Merger Agreement or in favor of any competing acquisition proposal. This termination fee will also be payable by the Company to Parent in the event that, generally, (1) a competing acquisition proposal for 50% or more of the stock or consolidated assets of the Company has been publicly announced and not withdrawn, (2) the Merger Agreement is terminated because the Company's stockholders fail to adopt the Merger Agreement or because the Company materially breaches the Merger Agreement, and (3) within twelve months of such termination of the Merger Agreement, the Company enters into a definitive agreement providing for a competing acquisition proposal for 50% or more of the stock or consolidated assets of the Company and such acquisition is subsequently consummated. Upon termination of the Merger Agreement under other specified limited circumstances, Parent will be required to pay the Company a termination fee of \$1.0 billion. Specifically, this termination fee is payable by Parent to the Company if the Merger Agreement is terminated by the Company because (1) the conditions to Parent's obligations to consummate the Merger are satisfied and the Parent fails to consummate the Merger as required pursuant to, and in the circumstances specified in, the Merger Agreement; or (2) Parent breaches of its representations, warranties or covenants in a manner that would cause the related closing conditions to not be satisfied. Mr. Musk has provided the Company with a limited guarantee in favor of the Company, which guarantees, among other things, the payment of the termination fee payable by Parent to the Company, subject to the conditions set forth therein.

In addition to the foregoing termination rights, and subject to certain limitations, either party may terminate the Merger Agreement if the Merger is not consummated by October 24, 2022, which date will be extended for six months if the closing conditions related to applicable antitrust and foreign investment clearances and the absence of any applicable law or order making illegal or prohibiting the Merger have not been satisfied as of such date.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the consolidated financial statements and related notes thereto included in Item 1 "Financial Statements" in this Quarterly Report on Form 10-Q. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those discussed below. Factors that could cause or contribute to such differences include, but are not limited to, those identified below and those discussed in the section titled "Risk Factors" included elsewhere in this Quarterly Report on Form 10-Q.

Highlights of Quarterly Results

Revenue for the three months ended March 31, 2022 totaled \$1.20 billion, an increase of 16% year over year.

- Advertising revenue totaled \$1.11 billion, an increase of 23% year over year.
- Subscription and other revenue totaled \$94.4 million, a decrease of 31% year over year.
- U.S. revenue totaled \$671.5 million, an increase of 21% year over year.
- International revenue totaled \$529.5 million, an increase of 10% year over year.
- Total ad engagements increased 12% year over year.
- Cost per engagement increased 10% year over year.

Average monetizable daily active usage (mDAU)⁽¹⁾ for the three months ended March 31, 2022 was 229.0 million, an increase of 15.9% year over year.

Loss from operations was \$127.8 million, or 11% of total revenue, for the three months ended March 31, 2022, compared to income from operations of \$52.2 million, or 5% of total revenue, for the three months ended March 31, 2021.

Net income was \$513.3 million for the three months ended March 31, 2022 compared to net income of \$68.0 million for the three months ended March 31, 2021.

Cash, cash equivalents and short-term investments in marketable securities totaled \$6.26 billion as of March 31, 2022.

Pending Merger

On April 25, 2022, we entered into an agreement and plan of merger (the Merger Agreement) with X Holdings I, Inc. (Parent), X Holdings II, Inc. (Acquisition Sub), and, solely for the purpose of certain provisions of the Merger Agreement, Elon Musk. Parent and Acquisition Sub are affiliates of Elon Musk. The Merger Agreement provides that, subject to the terms and conditions set forth in the Merger Agreement, Acquisition Sub will merge with and into Twitter, with Twitter surviving the merger and becoming a wholly owned subsidiary of Parent. Under the Merger Agreement, at the effective time of the merger, each issued and outstanding share of our common stock (subject to certain exceptions set forth in the Merger Agreement) will be canceled and converted into the right to receive \$54.20 in cash, without interest.

Consummation of the merger is subject to the satisfaction or waiver of customary closing conditions, including: (1) approval of the Merger Agreement by our stockholders; (2) the expiration or termination of the waiting period under the United States Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, and clearance under the antitrust and foreign investment laws of the United States and certain non-United States jurisdictions; and (3) the absence of any law or order by a governmental authority of the United States or certain non-United States jurisdictions that has the effect of rendering illegal or prohibiting the consummation of the merger, or causing the merger to be rescinded following the completion thereof.

We are subject to customary restrictions on our ability to solicit alternative acquisition proposals from third parties and to provide non-public information to, and participate in discussions and engage in negotiations with, third parties regarding alternative acquisition proposals, subject to customary exceptions.

For a summary of the transaction, see Note 16 - Subsequent Events of the Notes to Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q and to our Form 8-K filed with the SEC on April 26, 2022.

⁽¹⁾ In March of 2019, we launched a feature that allowed people to link multiple separate accounts together in order to conveniently switch between accounts. An error was made at that time, such that actions taken via the primary account resulted in all linked accounts being counted as mDAU. This resulted in an overstatement of mDAU from the first quarter of 2019 through the fourth quarter of 2021. See the section titled, "mDAU Recast" after "Key Metrics" below for more information.

COVID-19

The COVID-19 pandemic has had, and continues to have, a significant impact around the world and has impacted our business, operations, and financial performance in different ways. The impacts of the COVID-19 pandemic, including supply chain constraints, labor shortages, and inflation, have caused advertisers in a variety of industries to be cautious in their spending, and in 2021 and the first quarter of 2022 had a modest negative impact on, and may negatively impact in future periods, our advertising revenue. The extent of the ongoing impact of the COVID-19 pandemic on our business and on global economic activity is uncertain and may again in the future adversely affect our business, operations and financial results. Our past results may not be indicative of our future performance, and historical trends in revenue, income (loss) from operations, net income (loss), and net income (loss) per share may differ materially. The risks related to the COVID-19 pandemic on our business are further described in Part II, Item 1A - Risk Factors of this Quarterly Report on Form 10-Q.

Key Metrics

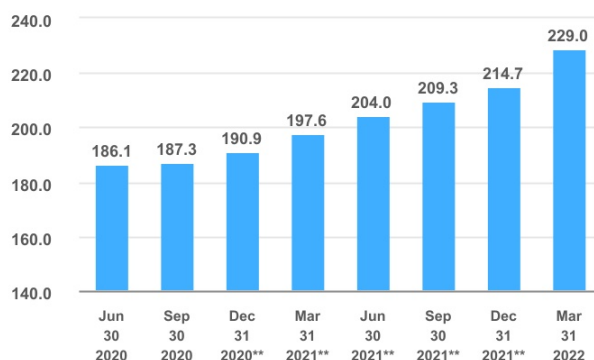
We review a number of metrics, including the following key metrics, to evaluate our business, measure our performance, identify trends affecting our business, formulate business plans and make strategic decisions.

Monetizable Daily Active Usage or Users (mDAU). We define mDAU as people, organizations, or other accounts who logged in or were otherwise authenticated and accessed Twitter on any given day through twitter.com or Twitter applications that are able to show ads, or paid Twitter products, including subscriptions. We believe that mDAU, and its related growth, is the best way to measure our success against our objectives and to show the size of our audience and engagement. Average mDAU for a period represents the number of mDAU on each day of such period divided by the number of days for such period. Changes in mDAU are a measure of changes in the size of our daily logged in or otherwise authenticated active total accounts. To calculate the year-over-year change in mDAU, we subtract the average mDAU for the three months ended in the previous year from the average mDAU for the same three months ended in the current year and divide the result by the average mDAU for the three months ended in the previous year. Additionally, our calculation of mDAU is not based on any standardized industry methodology and is not necessarily calculated in the same manner or comparable to similarly titled measures presented by other companies.

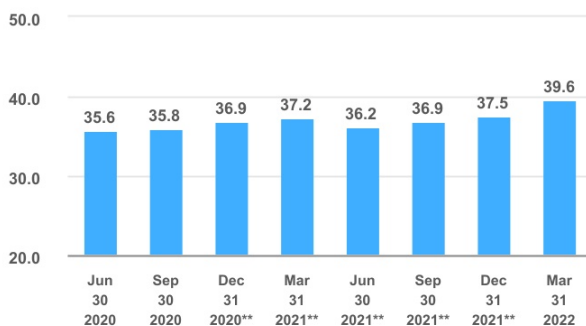
In the three months ended March 31, 2022, we had 229.0 million average mDAU(1), which represents an increase of 15.9% from the three months ended March 31, 2021. The increase was driven by strong seasonality in the first quarter of 2022, product improvements, and increased usage due to the war in Ukraine as people turned to Twitter to organize, share news, find sources of support, and stay connected. In the three months ended March 31, 2022, we had 39.6 million average mDAU in the United States and 189.4 million average mDAU in the rest of the world, which represent increases of 6.4% and 18.1%, respectively, from the three months ended March 31, 2021.

For additional information on how we calculate changes in mDAU and factors that can affect this metric, see the section titled “Note Regarding Key Metrics.”

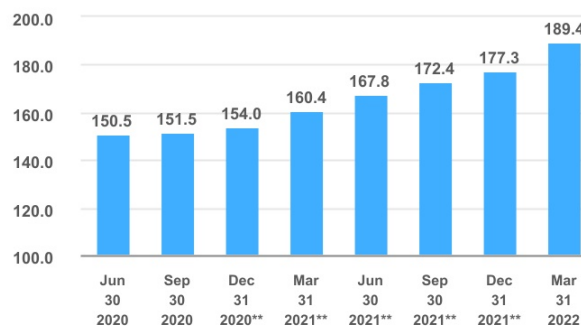
Monetizable Daily Active Usage: Worldwide
(quarterly average in millions)*



Monetizable Daily Active Usage: United States
(quarterly average in millions)



Monetizable Daily Active Usage: International
(quarterly average in millions)



* Please note the sum of average mDAU in the United States and average mDAU in the rest of the world may not equal the total average mDAU indicated due to rounding.

** An error introduced in March of 2019 resulted in an overstatement of mDAU from the first quarter of 2019 through the fourth quarter of 2021. The charts above provide updated values for mDAU from the fourth quarter of 2020 to the fourth quarter of 2021. See the section titled “mDAU Recast” below for additional information.

mDAU Recast

In March of 2019, we launched a feature that allowed people to link multiple separate accounts together in order to conveniently switch between accounts. An error was made at that time, such that actions taken via the primary account resulted in all linked accounts being counted as mDAU. This resulted in an overstatement of mDAU from the first quarter of 2019 through the fourth quarter of 2021. The table below provides updated values for mDAU from the fourth quarter of 2020 to the fourth quarter of 2021 alongside historical reported values for those same time periods. We are including one decimal place for both the absolute values and growth rates to give more detail around the magnitude of the changes. Note that recast data is not available prior to the fourth quarter of 2020 due to data retention policies, but our estimates suggest the prior period adjustments are not likely to be greater than those in the fourth quarter of 2020.

Recast mDAU (In millions)⁽¹⁾

	Three Months Ended				
	December 31, 2021	September 30, 2021	June 30, 2021	March 31, 2021	December 31, 2020
US	37.5	36.9	36.2	37.2	36.9
International	177.3	172.4	167.8	160.4	154.0
Global	214.7	209.3	204.0	197.6	190.9

Previously reported mDAU (In millions)⁽¹⁾

	Three Months Ended				
	December 31, 2021	September 30, 2021	June 30, 2021	March 31, 2021	December 31, 2020
US	37.8	37.2	36.5	37.6	37.2
International	178.8	173.8	169.2	161.7	155.2
Global	216.6	211.0	205.7	199.3	192.3

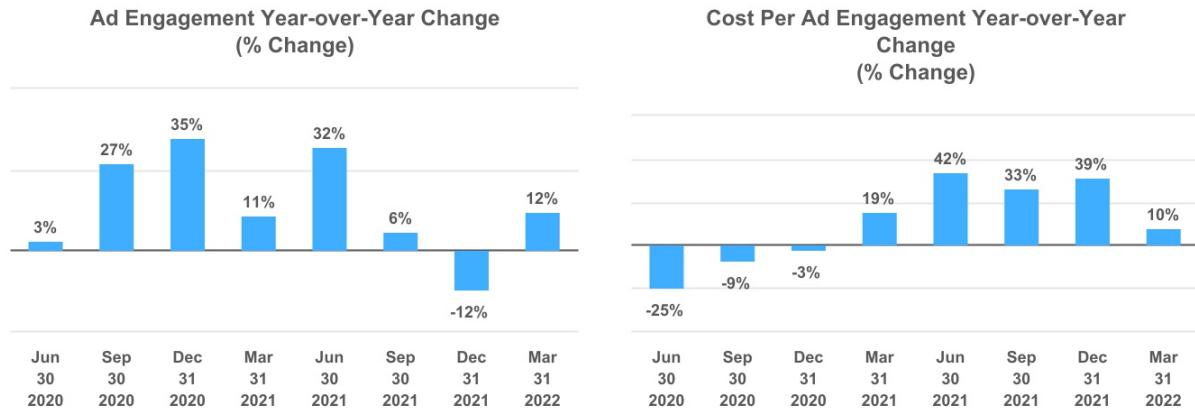
Difference (In millions)⁽¹⁾

	Three Months Ended				
	December 31, 2021	September 30, 2021	June 30, 2021	March 31, 2021	December 31, 2020
US	-0.3	-0.3	-0.3	-0.3	-0.3
International	-1.5	-1.4	-1.4	-1.3	-1.1
Global	-1.9	-1.7	-1.7	-1.6	-1.4

⁽¹⁾ The sum of individual metrics may not always equal total amounts indicated due to rounding.

Changes in Ad Engagements and Changes in Cost per Ad Engagement. We define an ad engagement as an interaction with one of our pay-for-performance advertising products. Ad engagements with our advertising products are based on the completion of an objective set out by an advertiser such as expanding, Retweeting, liking or replying to a Promoted Ad, viewing an embedded video, downloading or engaging with a promoted mobile application, clicking on a website link, signing up for marketing emails from advertisers, following the account that Tweets a Promoted Ad, or completing a transaction on an external website. We believe changes in ad engagements is one way to measure engagement with our advertising products. Cost per ad engagement is an output of our ads auction process, and will vary from one period to another based on geographic performance, auction dynamics, the strength of demand for various ad formats, and campaign objectives.

In the three months ended March 31, 2022, ad engagements increased 12% from the three months ended March 31, 2021, due to our growing audience and increased demand for video ads on a year-over-year basis, offset in part by a mix shift to lower funnel ad formats which generally have lower engagement rates and higher cost per ad engagement. In the three months ended March 31, 2022, cost per ad engagement increased by 10% compared to the three months ended March 31, 2021, primarily driven by a mix shift toward performance products, which are lower funnel ad formats, and 15-second video views, as well as slower like-for-like price increases across most ad formats.



Results of Operations

The following tables set forth our consolidated statements of income data for each of the periods presented (in thousands):

	Three Months Ended March 31,	
	2022	2021
Revenue		
Advertising services	\$ 1,106,578	\$ 898,840
Subscription and other	94,406	137,178
Total revenue	1,200,984	1,036,018
Costs and expenses ⁽¹⁾		
Cost of revenue	507,450	381,008
Research and development	371,695	250,709
Sales and marketing	299,809	234,592
General and administrative	149,863	117,527
Total costs and expenses	1,328,817	983,836
Income (loss) from operations	(127,833)	52,182
Interest expense	(15,444)	(13,185)
Interest income	7,962	11,001
Other income (expense), net	(6,506)	6
Gain on sale of asset group	970,474	—
Income before income taxes	828,653	50,004
Provision (benefit) for income taxes	315,367	(18,001)
Net income	\$ 513,286	\$ 68,005

⁽¹⁾ Costs and expenses include stock-based compensation expense as follows (in thousands):

	Three Months Ended March 31,	
	2022	2021
Cost of revenue	\$ 12,880	\$ 8,732
Research and development	106,604	65,156
Sales and marketing	29,164	21,171
General and administrative	28,615	15,814
Total stock-based compensation expense	\$ 177,263	\$ 110,873

The following table sets forth our consolidated statements of income data for each of the periods presented as a percentage of revenue:

	Three Months Ended March 31,	
	2022	2021
Revenue		
Advertising services	92 %	87 %
Subscription and other	8	13
Total revenue	100	100
Costs and expenses		
Cost of revenue	42	37
Research and development	31	24
Sales and marketing	25	23
General and administrative	12	11
Total costs and expenses	111	95
Income (loss) from operations	(11)	5
Interest expense	(1)	(1)
Interest income	1	1
Other income (expense), net	(1)	—
Gain on sale of asset group	81	—
Income before income taxes	69	5
Provision (benefit) for income taxes	26	(2)
Net income	43 %	7 %

Revenue

We generate the substantial majority of our revenue from the sale of advertising services. We also generate revenue by licensing our data to third parties and providing mobile advertising exchange services.

Advertising Services

We generate most of our advertising revenue by selling our Promoted Products. Currently, our Promoted Products consist of the following:

- *Promoted Ads and Twitter Amplify.* Promoted Ads, which are labeled as “promoted,” appear within a timeline, search results or profile pages just like an ordinary Tweet regardless of device, whether it be desktop or mobile. Using our proprietary algorithms and understanding of the interests of each account, we can deliver Promoted Ads that are intended to be relevant to a particular account. We enable our advertisers to target an audience based on an individual account’s interest graph. Our Promoted Ads are pay-for-performance or pay-for-impression delivered advertising that are priced through an auction. Our Promoted Ads include objective-based features that allow advertisers to pay only for the types of engagement selected by the advertisers, such as Tweet engagements (e.g., Retweets, replies and likes), website clicks, mobile application installs or engagements, obtaining new followers, or video views.
- *Follower Ads.* Follower Ads, which are labeled as “promoted,” provide a way for our advertisers to build and grow an audience that is interested in their business, product or service. Our Follower Ads are pay-for-performance advertising priced through an auction.
- *Twitter Takeover.* Twitter Takeover, which are labeled as “promoted,” appear at the top of the list of trending topics or timeline for an entire day in a particular country or on a global basis. We sell our Twitter Takeover on a fixed-fee-per-day basis.

While the majority of the Promoted Products we sell to our advertisers are placed on Twitter, we also generate advertising revenue by placing advertising products that we sell to advertisers on third-party publishers’ websites, applications or other offerings.

Subscription and other

To better reflect our business opportunities, including the sale of MoPub and the launch of Twitter Blue, we have updated the name of "Data Licensing and Other Revenue" to "Subscription and Other Revenue". We generate subscription and other revenue by (i) offering data products and data licenses that allow our data partners to access, search and analyze historical and real-time data on our platform, which consists of public Tweets and their content, through the Twitter Developer Platform, and (ii) providing subscription-related offerings such as Twitter Blue, which allows accounts to pay for exclusive features on Twitter. Our data partners generally purchase licenses to access all or a portion of our data for a fixed period. We recognize data licensing revenue as our data partners consume and benefit from their use of the licensed data. "Subscription and Other Revenue" includes revenue from our mobile advertising exchange services through our MoPub exchange until the completion of its sale on January 1, 2022.

	Three Months Ended March 31,		\$ Change	% Change
	2022	2021		
	(in thousands)			
Advertising services	\$ 1,106,578	\$ 898,840	\$ 207,738	23 %
Subscription and other	94,406	137,178	(42,772)	(31)%
Total revenue	<u>\$ 1,200,984</u>	<u>\$ 1,036,018</u>	<u>\$ 164,966</u>	<u>16 %</u>

Revenue in the three months ended March 31, 2022 increased by \$165.0 million or 16% compared to the three months ended March 31, 2021.

Advertising revenue in the three months ended March 31, 2022 increased by \$207.7 million or 23% compared to the three months ended March 31, 2021 despite the war in Ukraine, which caused some large advertisers to either pause or slow their campaigns in the first quarter of 2022. The increase in advertising revenue was driven by strong sales execution, ongoing product improvements, and a broad increase in advertiser demand as advertisers continue to come to Twitter to launch new products and services and to connect with the growing audience on Twitter. The increase in advertising revenue in the three months ended March 31, 2022 was attributable to increases in the number of ad engagements of 12%, and increases in cost per ad engagement of 10%, compared to the same periods in 2021. The increase in the number of ad engagements was due to our growing audience and increased demand for video ads on a year-over-year basis, offset in part by a mix shift to lower funnel ad formats which generally have lower engagement rates and higher cost per ad engagement. The increase in cost per ad engagement was primarily driven by a mix shift toward performance products, which are lower funnel ad formats, and 15-second video views, as well as slower like-for-like price increases across most ad formats.

In the three months ended March 31, 2022, subscription and other revenue decreased by 31% compared to the three months ended March 31, 2021. The decrease was primarily attributable to the sale of our MoPub business to AppLovin on January 1, 2022. MoPub and MoPub Acquire generated approximately \$51.2 million in revenue in the three months ended March 31, 2021, the significant majority of which was reflected in "Subscription and Other Revenue" (previously named "Data Licensing and Other Revenue").

Cost of Revenue

Cost of revenue includes infrastructure costs, revenue share expenses, amortization of acquired intangible assets, amortization of capitalized labor costs for internally developed software, allocated facilities costs, as well as traffic acquisition costs (TAC). Infrastructure costs consist primarily of data center costs related to our co-located facilities, which include lease and hosting costs, related support and maintenance costs and energy and bandwidth costs, public cloud hosting costs, as well as depreciation of servers and networking equipment; and personnel-related costs, including salaries, benefits and stock-based compensation, for our operations teams. TAC consists of costs we incur with third parties in connection with the sale to advertisers of our advertising products that we place on third-party publishers' websites, and applications or other offerings collectively resulting from acquisitions. Certain elements of our cost of revenue are fixed and cannot be quickly reduced in the near term in response to market conditions.

	Three Months Ended March 31,		\$ Change	% Change
	2022	2021		
	(in thousands)			
Cost of revenue	\$ 507,450	\$ 381,008	\$ 126,442	33 %
Cost of revenue as a percentage of revenue	42 %	37 %		

In the three months ended March 31, 2022, cost of revenue increased by \$126.4 million compared to the three months ended March 31, 2021. The increase was attributable to a \$53.6 million increase in infrastructure costs, a \$46.9 million increase driven primarily by revenue share expenses and personnel-related costs due to an increase in employee headcount, and a \$25.9 million increase in depreciation and amortization expense.

We plan to continue to scale the capacity and enhance the capability and reliability of our infrastructure to support mDAU growth and increased activity on our platform. We expect that cost of revenue will vary as a percentage of revenue over time.

Research and Development

Research and development expenses consist primarily of personnel-related costs, including salaries, benefits and stock-based compensation, for our engineers and other employees engaged in the research and development of our products and services. In addition, research and development expenses include amortization of acquired intangible assets, allocated facilities costs, and other supporting overhead costs.

	Three Months Ended March 31,		\$ Change	% Change
	2022	2021		
	(in thousands)			
Research and development	\$ 371,695	\$ 250,709	\$ 120,986	48 %
Research and development as a percentage of revenue	31 %	24 %		

In the three months ended March 31, 2022, research and development expenses increased by \$121.0 million compared to the three months ended March 31, 2021. The increase was attributable to a \$110.5 million increase in personnel-related costs mainly driven by an increase in employee headcount as we continue to focus investments in engineering, product, design, and research, and a \$22.1 million increase in facilities costs and other administrative expenses, offset by a \$11.6 million increase in the capitalization of costs associated with developing software for internal use.

We plan to continue to invest in key areas of our business to ensure that we have an appropriate level of engineering, product management and design personnel and related resources to support our research and development efforts on key priorities. We expect that research and development expenses will vary as a percentage of revenue over time.

Sales and Marketing

Sales and marketing expenses consist primarily of personnel-related costs, including salaries, commissions, benefits and stock-based compensation for our employees engaged in sales, sales support, business development and media, marketing, corporate communications and customer service functions. In addition, marketing and sales-related expenses also include advertising costs, market research, trade shows, branding, marketing, public relations costs, amortization of acquired intangible assets, allocated facilities costs, and other supporting overhead costs.

	Three Months Ended March 31,		\$ Change	% Change
	2022	2021		
	(in thousands)			
Sales and marketing	\$ 299,809	\$ 234,592	\$ 65,217	28 %
Sales and marketing as a percentage of revenue	25 %	23 %		

In the three months ended March 31, 2022, sales and marketing expenses increased by \$65.2 million compared to the three months ended March 31, 2021. The increase was attributable to a \$27.0 million increase in personnel-related costs mainly driven by an increase in employee headcount, a \$19.3 million increase in sales related expenses due to higher revenue as well as increased marketing expenses, and a \$18.9 million net increase in facilities costs and other administrative expenses.

We continue to evaluate key areas in our business to ensure we have an appropriate level of sales and marketing expenses to execute on our key priorities and objectives. We expect that sales and marketing expenses will vary as a percentage of revenue over time.

General and Administrative

General and administrative expenses consist primarily of personnel-related costs, including salaries, benefits and stock-based compensation, for our executive, finance, legal, information technology, human resources and other administrative employees. In addition, general and administrative expenses include fees and costs for professional services, including consulting, third-party legal and accounting services and facilities costs and other supporting overhead costs that are not allocated to other departments.

	Three Months Ended March 31,		\$ Change	% Change
	2022	2021		
	(in thousands)			
General and administrative	\$ 149,863	\$ 117,527	\$ 32,336	28 %
General and administrative as a percentage of revenue	12 %	11 %		

In the three months ended March 31, 2022, general and administrative expenses increased by \$32.3 million compared to the three months ended March 31, 2021. The increase was attributable to a \$48.1 million increase in personnel-related costs, mainly driven by an increase in employee headcount, and a \$12.1 million increase in professional service fees, offset by a \$27.9 million net decrease in facilities costs and other administrative expenses.

We plan to continue to invest in general and administrative functions to ensure we have an appropriate level of support for our key objectives. We expect that general and administrative expenses will vary as a percentage of revenue over time.

Interest Expense

Interest expense consists primarily of interest expense incurred in connection with the \$1.15 billion principal amount of 0.25% convertible senior notes due in 2024 (the 2024 Notes), the \$1.0 billion principal amount of 0.375% convertible senior notes due in 2025 (the 2025 Notes), the \$700.0 million principal amount of 3.875% senior notes due in 2027 (the 2027 Notes), and the \$1.0 billion principal amount of 5.000% senior notes due in 2030 (the 2030 Notes).

	Three Months Ended March 31,		% Change
	2022	2021	
	(in thousands)		
Interest expense	\$ 15,444	\$ 13,185	17 %

In the three months ended March 31, 2022, interest expense increased by \$2.3 million compared to the three months ended March 31, 2021. The increase was primarily attributable to the issuance of the 2030 Notes in February 2022, offset by the repayment of the 2021 Notes at their maturity in September 2021.

Interest Income

Interest income is generated from our cash equivalents and short-term investments net of the related amortization of premium paid on such investments.

	Three Months Ended March 31,		% Change
	2022	2021	
	(in thousands)		
Interest income	\$ 7,962	\$ 11,001	(28)%

In the three months ended March 31, 2022, interest income decreased by \$3.0 million compared to the three months ended March 31, 2021. The decrease was primarily attributable to lower interest rates.

Other Income (Expense), Net

Other income (expense), net, consists primarily of unrealized foreign exchange gains and losses due to re-measurement of monetary assets and liabilities denominated in non-functional currencies and realized foreign exchange gains and losses on foreign exchange transactions, and gains and losses on investments in privately-held companies. We expect our foreign exchange gains and losses will vary depending upon movements in the underlying exchange rates.

	Three Months Ended March 31,		
	2022	2021	
	(in thousands)		
Other income (expense), net	\$ (6,506)	\$ 6	

In the three months ended March 31, 2022, other expense, net increased by \$6.5 million compared to the three months ended March 31, 2021. The change was primarily attributable to less favorable foreign currency exchange impacts from foreign currency-denominated assets and liabilities.

Gain on Sale of Asset Group

On January 1, 2022, we completed the sale of our MoPub business to AppLovin Corporation for \$1.05 billion in cash and recorded a pre-tax gain of \$970.5 million after closing and transition service costs in the consolidated statements of income in the three months ended March 31, 2022. The sale of MoPub enables the Company to focus on key areas of the business, including performance-based advertising, SMB offerings, and commerce initiatives on Twitter.

Provision (Benefit) for Income Taxes

Our provision (benefit) for income taxes consists of federal and state income taxes in the United States and income taxes in certain foreign jurisdictions. Our provision (benefit) for income taxes for interim periods has generally been determined using an estimate of our annual effective tax rate, adjusted for discrete items, if any. Under certain circumstances where we are unable to make a reliable estimate of the annual effective tax rate, the accounting guidance permits the use of the actual effective tax rate for the year-to-date period. In the three months ended March 31, 2022, we used this approach because we were unable to reasonably estimate our annual effective tax rate due to the variability of the rate as a result of fluctuations in forecasted income and the effects of being taxed in multiple tax jurisdictions.

	Three Months Ended March 31,	
	2022	2021
	(in thousands)	
Provision (benefit) for income taxes	\$ 315,367	\$ (18,001)

In the three months ended March 31, 2022, our provision for income taxes was \$315.4 million, compared to a benefit from income taxes of \$18.0 million for the three months ended March 31, 2021. The change was primarily due to the gain on the sale of MoPub, described in Note 10 - Sale of Asset Group, which was subject to higher foreign tax rates and tax on U.S. global intangible low-taxed income.

Our effective tax rate could be affected by our jurisdictional mix of income (loss) before taxes, including our allocation of centrally incurred costs to foreign jurisdictions, changes in tax rates and tax regulations, the impact of tax examinations, the impact of business combinations, changes in our corporate structure, changes in the geographic location of business functions or assets, tax effects of stock-based compensation, and changes in management's assessment of the ability to realize deferred tax assets. In addition, the provision is impacted by deferred income taxes reflecting 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.

Liquidity and Capital Resources

	Three Months Ended March 31,	
	2022	2021
	(in thousands)	
Net income	\$ 513,286	\$ 68,005
Net cash provided by operating activities	\$ 126,091	\$ 390,184
Net cash provided by investing activities	\$ 1,064,901	\$ 680,358
Net cash provided by (used in) financing activities	\$ (1,093,153)	\$ 1,197,678

Our principal sources of liquidity are our cash, cash equivalents, and short-term investments in marketable securities. Our cash equivalents and marketable securities are invested primarily in short-term fixed income securities, including government and investment-grade debt securities and money market funds. In February 2022, we received net proceeds of approximately \$988.7 million from the issuance of the 2030 Notes, after deducting the debt issuance costs.

In March 2020, our Board of Directors authorized a program to repurchase up to \$2.0 billion of our common stock over time (the 2020 Repurchase Program). In February 2022, our board of directors authorized a \$4.0 billion share repurchase program (the 2022 Repurchase Program), which replaces the 2020 Repurchase Program. In connection with the 2022 Repurchase Program, on February 10, 2022 we entered into accelerated share repurchase agreements (the ASR Agreements) to repurchase \$2.0 billion of our common stock. Repurchases may be made from time to time through open market purchases or through privately negotiated transactions subject to market conditions, applicable legal requirements and other relevant factors. The 2022 Repurchase Program does not obligate us to acquire any particular amount of our common stock and may be suspended at any time at our discretion. The 2022 Repurchase Program does not have an expiration date. In the three months ended March 31, 2022, we repurchased 1.9 million shares for an aggregate amount of \$71.5 million under the 2020 Repurchase Program. In connection with the ASR Agreements, we made a prepayment of \$2.0 billion and received an initial delivery of approximately 37.8 million shares of our common stock. The ASR Agreements are expected to settle during the third quarter of 2022.

As of March 31, 2022, we had \$6.26 billion of cash, cash equivalents and short-term investments in marketable securities, of which \$303.8 million was held by our foreign subsidiaries. We do not plan to indefinitely reinvest these funds held by our foreign subsidiaries and have accrued the incremental taxes due as part of repatriation. In connection with a draft complaint from the FTC we received in 2020 discussed in Note 15 - Commitments and Contingencies, we deposited a \$150.0 million penalty into escrow from cash on hand in March 2022. We believe that our existing cash, cash equivalents and short-term investment balances, and our credit facility, together with cash generated from operations will be sufficient to meet our working capital and capital expenditure requirements for at least the next 12 months.

Merger Agreement

On April 25, 2022, we entered into the Merger Agreement. The Merger Agreement contains customary covenants by us regarding the conduct of our business prior to the closing of the merger. In addition, pursuant to the Merger Agreement, we have agreed, subject to certain exceptions, not to take, authorize, agree or commit to do certain actions outside of the ordinary course of business, including incurring indebtedness (other than under existing credit facilities or to replace existing indebtedness) or materially amending the terms of existing indebtedness. We do not believe that the restrictions in the Merger Agreement will prevent us from meeting our debt obligations, ongoing costs of operations, working capital needs or capital expenditure requirements.

The Merger Agreement contains certain termination rights for the Company and Parent. Upon termination of the Merger Agreement under specified limited circumstances, the Company will be required to pay Parent a termination fee of \$1.0 billion. Specifically, this termination fee is payable by the Company to Parent because (1) the Company terminates the Merger Agreement to allow the Company to enter into a definitive agreement for a competing acquisition proposal that constitutes a Superior Proposal (as defined in the Merger Agreement); or (2) Parent terminates the Merger Agreement because the Company's board of directors recommends that the Company's stockholders vote against the adoption of the Merger Agreement or in favor of any competing acquisition proposal. This termination fee will also be payable by the Company to Parent in the event that, generally, (1) a competing acquisition proposal for 50% or more of the stock or consolidated assets of the Company has been publicly announced and not withdrawn, (2) the Merger Agreement is terminated because the Company's stockholders fail to adopt the Merger Agreement or because the Company materially breaches the Merger Agreement, and (3) within twelve months of such termination of the Merger Agreement, the Company enters into a definitive agreement providing for a competing acquisition proposal for 50% or more of the stock or consolidated assets of the Company and such acquisition is subsequently consummated. Upon termination of the Merger Agreement under other specified limited circumstances, Parent will be required to pay the Company a termination fee of \$1.0 billion. Specifically, this termination fee is payable by Parent to the Company if the Merger Agreement is terminated by the Company because (1) the conditions to Parent's obligations to consummate the Merger are satisfied and the Parent fails to consummate the Merger as required pursuant to, and in the circumstances specified in, the Merger Agreement; or (2) Parent breaches of its representations, warranties or covenants in a manner that would cause the related closing conditions to not be satisfied. Mr. Musk has provided the Company with a limited guarantee in favor of the Company, which guarantees, among other things, the payment of the termination fee payable by Parent to the Company, subject to the conditions set forth therein.

In addition to the foregoing termination rights, and subject to certain limitations, either party may terminate the Merger Agreement if the Merger is not consummated by October 24, 2022, which date will be extended for six months if the closing conditions related to applicable antitrust and foreign investment clearances and the absence of any applicable law or order making illegal or prohibiting the Merger have not been satisfied as of such date.

Credit Facility

We have a revolving credit agreement with certain lenders which provides for a \$500.0 million revolving unsecured credit facility maturing on August 7, 2023. We are obligated to pay interest on loans under the credit facility and other customary fees for a credit facility of this size and type, including an upfront fee and an unused commitment fee. The interest rate for the credit facility is determined based on calculations using certain market rates as set forth in the credit agreement. In addition, the credit facility contains restrictions on payments including cash payments of dividends. In March 2021, we entered into an amendment to the revolving credit agreement to increase the amount of indebtedness we may incur from \$4.5 billion to \$6.0 billion and to permit the convertible note issuance and hedge transactions associated with the 2026 Notes. In February 2022, we entered into an additional amendment to the revolving credit facility to permit the repurchase of our common stock in an aggregate amount not to exceed \$4.0 billion. As of March 31, 2022, no amounts had been drawn under the credit facility.

Operating Activities

Cash provided by operating activities consists of net income adjusted for certain non-cash items including depreciation and amortization, stock-based compensation, deferred income taxes, impairment of (gain on) investments in privately-held companies, gain on the sale of an asset group, as well as the effect of changes in working capital and other activities. We expect that cash provided by operating activities will fluctuate in future periods as a result of a number of factors, including fluctuations in our revenue, increases in operating expenses and costs related to acquisitions. For additional discussion, see "Part II —Other Information, Item 1A. Risk Factors."

Cash provided by operating activities in the three months ended March 31, 2022 was \$126.1 million, a decrease of \$264.1 million compared to the three months ended March 31, 2021. Cash provided by operating activities was driven by net income of \$513.3 million, as adjusted for the exclusion of non-cash expenses and other adjustments totaling \$436.9 million, including a gain on the sale of our MoPub asset group of \$970.5 million, deferred income taxes of \$190.7 million, stock-based compensation expense of \$177.3 million, and depreciation and amortization expense of \$160.3 million, and the effect of changes in assets and liabilities, net of asset acquired and liabilities assumed from acquisitions, that resulted in cash inflows of \$49.7 million.

Investing Activities

Our primary investing activities consist of purchases of property and equipment, particularly purchases of servers and networking equipment, leasehold improvements for our facilities, purchases and disposals of marketable securities, strategic investments in privately-held companies, acquisitions of businesses and other activities.

Cash provided by investing activities in the three months ended March 31, 2022 increased by \$384.5 million compared to the three months ended March 31, 2021. The increase was primarily due to \$1.05 billion of proceeds from the sale of our MoPub asset group, a \$270.0 million decrease in purchases of marketable securities, a \$25.9 million decrease in purchases of investments in privately-held companies, a \$18.0 million decrease in purchases of property and equipment, a \$9.1 million absence of other investing activities, an \$8.4 million absence of business combinations, a \$3.7 million decrease in investments in the Finance Justice Fund, and a \$0.5 million increase in proceeds from sales of property and equipment, offset by a \$524.1 million decrease in proceeds from maturities of marketable securities and a \$477.0 million decrease in proceeds from sales of marketable securities.

Financing Activities

Our primary financing activities consist of issuances of securities, including common stock issued under our employee stock purchase plan and issuances of our Notes, repurchases of common stock under our share repurchase program, repayment of Convertible Notes, payments of finance lease obligations, and stock option exercises by employees and other service providers.

Cash used in financing activities in the three months ended March 31, 2022 was \$1.09 billion, compared to cash provided by financing activities of \$1.20 billion in the three months ended March 31, 2021. The change was primarily due to a \$1.92 billion increase in repurchases of common stock, including a \$2.0 billion prepayment we made in connection with accelerated share repurchase agreements in February 2022, \$988.7 million of net proceeds from the issuance of the 2030 Notes net of issuance costs in the three months ended March 31, 2022, compared to \$1.42 billion of net proceeds from the issuance of the 2026 Notes net of issuance costs, which was reduced by a net cash outflow of \$52.3 million for the purchase of convertible note hedges and sale of warrants entered into in connection with the issuance of the 2026 Notes in the three months ended March 31, 2021, and a \$1.9 million decrease in proceeds from option exercises, offset by a \$6.4 million decrease in tax payments related to net share settlements of equity awards and the absence of \$0.6 million of payments of finance lease obligations.

Contractual Obligations

Our principal commitments consist of obligations under the Notes (including principal and coupon interest), finance and operating leases for equipment, office space and co-located data center facilities, as well as non-cancelable contractual commitments. In addition, under the Merger Agreement, we may in certain circumstances be obligated to pay a termination fee of \$1.0 billion. Refer to Note 6 - Leases; Note 11 - Convertible Notes and Senior Notes; Note 15 - Commitments and Contingencies; and Note 16 - Subsequent Events, of the Notes to Consolidated Financial Statements under Part I, Item 1 of this Quarterly Report on Form 10-Q for more details.

Off Balance Sheet Arrangements

We do not have any off-balance sheet arrangements and did not have any such arrangements as of March 31, 2022.

Critical Accounting Policies and Estimates

We prepare our consolidated financial statements and related notes in accordance with GAAP. In doing so, we make estimates and assumptions that affect our reported amounts of assets, liabilities, revenue and expenses, as well as related disclosure of contingent assets and liabilities. To the extent that there are material differences between these estimates and actual results, our financial condition or operating results would be affected. We base our estimates on past experience and other assumptions that we believe are reasonable under the circumstances, and we evaluate these estimates on an ongoing basis. We refer to accounting estimates of this type as critical accounting policies and estimates. Please refer to "Management's Discussion and Analysis of Financial Condition and Results of Operations" contained in Part II, Item 7 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2021 for a more complete discussion of our critical accounting policies and estimates.

There have been no material changes to our critical accounting policies and estimates as compared to the critical accounting policies and estimates described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

Recent Accounting Pronouncements

For information with respect to recent accounting pronouncements and the impact of these pronouncements on our consolidated financial statements, see Note 1 – “Summary of Significant Accounting Policies” in the notes to the consolidated financial statements included in Part I of this Quarterly Report on Form 10-Q.

Item 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We have operations both within the United States and internationally, and we are exposed to market risks in the ordinary course of our business. These risks include primarily interest rate and foreign exchange risks.

Interest Rate Fluctuation Risk

Our investment portfolio mainly consists of short-term fixed-income securities, including government and investment-grade debt securities and money market funds. These securities are classified as available-for-sale and, consequently, are recorded on the consolidated balance sheets at fair value with unrealized gains or losses, net of tax reported as a separate component of accumulated other comprehensive loss. Our investment policy and strategy is focused on the preservation of capital and supporting our liquidity requirements. We do not enter into investments for trading or speculative purposes.

A rise in interest rates could have a material adverse impact on the fair value of our investment portfolio. Based on our investment portfolio balance as of March 31, 2022, a hypothetical increase in interest rates of 100 basis points would result in a decrease of approximately \$27.3 million in the fair value of our available-for-sale securities. We currently do not hedge these interest rate exposures.

As of March 31, 2022, we had \$3.59 billion aggregate principal amount of Convertible Notes outstanding and \$1.70 billion aggregate principal amount of Senior Notes outstanding. We carry the Notes at face value less amortized discount on the consolidated balance sheets. Since the 2024 Notes, 2025 Notes, 2027 Notes, and 2030 Notes bear interest at fixed rates, we have no financial statement risk associated with changes in interest rates. However, the fair value of the Notes changes when the market price of our stock fluctuates or interest rates change.

Foreign Currency Exchange Risk

Transaction Exposure

We transact business in various foreign currencies and have international revenue, as well as costs denominated in foreign currencies, primarily the Euro, British Pound, Singapore Dollar and Japanese Yen. This exposes us to the risk of fluctuations in foreign currency exchange rates. Accordingly, changes in exchange rates, and in particular a continuing strengthening of the U.S. dollar, would negatively affect our revenue and other operating results as expressed in U.S. dollars.

We have experienced and will continue to experience fluctuations in our net income as a result of transaction gains or losses related to revaluing and ultimately settling certain asset and liability balances that are denominated in currencies other than the functional currency of the entities in which they are recorded. Foreign currency gains and losses were immaterial for the three months ended March 31, 2022 and 2021. We currently utilize foreign currency forward contracts with financial institutions to reduce the risk that our earnings may be adversely affected by the impact of exchange rate fluctuations on monetary assets or liabilities denominated in currencies other than the local currency of a subsidiary. These contracts are not designated as hedging instruments. We may in the future enter into other derivative financial instruments if it is determined that such hedging activities are appropriate to further reduce our foreign currency exchange risk. Based on our foreign currency exposures from monetary assets and liabilities net of our open hedge position, we estimated that a 10% change in exchange rates against the U.S. dollar would have resulted in a gain or loss of approximately \$6.4 million as of March 31, 2022.

Translation Exposure

We are also exposed to foreign exchange rate fluctuations as we translate the financial statements of our foreign subsidiaries into U.S. dollars in consolidation. If there is a change in foreign currency exchange rates, the translating adjustments resulting from the conversion of our foreign subsidiaries' financial statements into U.S. dollars would result in a gain or loss recorded as a component of accumulated other comprehensive loss which is part of stockholders' equity.

Item 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report on Form 10-Q. 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 Securities and Exchange Commission’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. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. 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. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of March 31, 2022, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) or 15d-15(d) of the Exchange Act that occurred during the period covered by this Quarterly Report on Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. LEGAL PROCEEDINGS

We are currently involved in, and may in the future be involved in, legal proceedings, claims, investigations, and government inquiries and investigations arising in the ordinary course of business. These proceedings, which include both individual and class action litigation and administrative proceedings, have included, but are not limited to matters involving content on the platform or our actions related thereto, intellectual property, privacy, data protection, consumer protection, securities, employment, and contractual rights. Legal risk may be enhanced in jurisdictions outside the United States where our protection from liability for content published on our platform by third parties may be unclear, and where we may be less protected under local laws than we are in the United States. Future litigation may be necessary, among other things, to defend ourselves, and the people on Twitter or to establish our rights. For information regarding legal proceedings in which we are involved, see “Legal Proceedings” in Note 15 of the notes to our consolidated financial statements, which is incorporated herein by reference.

Item 1A. RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information in this Quarterly Report on Form 10-Q, including the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and related notes, before making a decision to invest in our common stock. The risks and uncertainties described below may not be the only ones we face. If any of the risks actually occurs, our business, financial condition, operating results, cash flows and prospects could be materially and adversely affected. In that event, the market price of our common stock could decline, and you could lose part or all of your investment.

Risk Factor Summary

Our business operations are subject to numerous risks and uncertainties, including those outside of our control, that could cause our business, financial condition or operating results to be harmed, including risks regarding the following:

Risks Related to our Pending Acquisition by Affiliates of Elon Musk

- the announcement and pendency of the merger or a failure to complete the merger;
- business uncertainties and contractual restrictions while the merger is pending;
- litigation that may arise in connection with the merger;

Business and Operational Factors

- our ability to increase our mDAU, ad engagement or other general engagement on our platform;
- the loss of advertising revenue;
- competition for people to use our platform and for content and data partners;
- competition for advertising spend;
- our prioritization of the long-term health of our service;
- our prioritization of product innovation;
- our ability to maintain and promote our brand;
- our ability to hire, retain and motivate highly skilled personnel;
- the interoperability of our products and services across third-party services and systems;
- the impact of spam and fake accounts on our platform experience;
- actual or perceived security breaches or incidents, as well as errors, vulnerabilities or defects in our software and in products of third-party providers;
- our international operations;
- the impact of the COVID-19 pandemic and responsive measures;

- our significant past operating losses and any inability to maintain profitability or accurately predict fluctuations in the future;
- our reliance on assumptions and estimates to calculate certain key metrics;
- catastrophic events and interruptions by man-made problems;

Intellectual Property and Technology

- our ability to scale our existing technology and infrastructure;
- our failure to protect our intellectual property rights;
- our use of open source software;
- current and future litigation related to intellectual property rights;

Regulatory and Legal

- complex and evolving U.S. and foreign laws and regulations;
- regulatory investigations and adverse settlements;
- lawsuits or liability as a result of content published through our products and services;
- our ability to maintain an effective system of disclosure controls and internal control over financial reporting;
- our ability to obtain adequate insurance coverage or self-insure for potential exposures;

Financial and Transactional Risks

- our ability to make and successfully integrate acquisitions and investments or complete divestitures;
- our debt obligations;
- our tax liabilities;
- our ability to realize the anticipated benefits of our share repurchase programs;
- our ability to use our net operating loss carryforwards;
- the impairment of our goodwill or intangible assets;

Governance Risks and Risks related to Ownership of our Capital Stock

- provisions of Delaware law and our certificate of incorporation and bylaws could impair a takeover attempt if deemed undesirable by our board of directors;
- the volatility of the trading price of our common stock; and
- our note hedge and warrant transactions.

Risks Related to the Pending Acquisition by Affiliates of Elon Musk

The announcement and pendency of our agreement to be acquired by affiliates of Elon Musk may have an adverse effect on our business results, and a failure to complete the merger could have a material and adverse effect on our business, results of operations, financial condition, cash flows, and stock price.

On April 25, 2022, we entered into the Merger Agreement with certain affiliates of Elon Musk. The Merger Agreement provides for our acquisition by an entity that is wholly owned by Mr. Musk. Consummation of the merger is subject to the satisfaction or waiver of customary closing conditions, including: (1) approval of the Merger Agreement by our stockholders; (2) the expiration or termination of the waiting period under the United States Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, and clearance under the antitrust and foreign investment laws of the United States and certain non-United States jurisdictions; and (3) the absence of any law or order by a governmental authority of the United States or certain non-United States jurisdictions that has the effect of rendering illegal or prohibiting consummation of the merger, or causing the merger to be rescinded following the completion thereof. There is no assurance that all of the various conditions will be satisfied, or that the merger will be completed on the proposed terms, within the expected timeframe, or at all.

The merger may be delayed, and may ultimately not be completed, due to a number of factors, including:

- the failure to obtain requisite stockholder approval to approve the merger;
- the failure to obtain regulatory approvals from various governmental entities;
- potential future stockholder litigation and other legal and regulatory proceedings, which could delay or prevent the merger; and
- the failure to satisfy the other conditions to the completion of the merger, including the possibility that a Company Material Adverse Effect (as defined in the Merger Agreement) would permit Parent not to close the merger.

If the merger does not close, we may suffer other consequences that could adversely affect our business, financial condition, operating results, cash flows, and stock price, and our stockholders would be exposed to additional risks, including:

- to the extent that the current market price of our stock reflects an assumption that the merger will be completed, the price of our common stock could decrease if the merger is not completed;
- investor confidence in us could decline, stockholder litigation could be brought against us, relationships with existing and prospective advertisers and other business partners may be adversely impacted, we may be unable to retain key personnel, and our operating results and cash flows may be adversely impacted due to costs incurred in connection with the merger;
- any disruptions to our business resulting from the announcement and pendency of the merger, including adverse changes in our relationships with employees, advertisers and other business partners, may continue or intensify in the event the merger is not consummated or is significantly delayed; and
- the requirement that we pay Parent a termination fee of up to \$1.0 billion under certain circumstances that give rise to the termination of the Merger Agreement.

There can be no assurance that our business, relationships with other parties, liquidity or financial condition will not be adversely affected, as compared to the condition prior to the announcement of the merger, if the merger is not consummated. Even if successfully completed, there are certain risks to our stockholders from the merger, including:

- we may experience a departure of employees, prior to the closing of the merger;
- the amount of cash to be paid under the Merger Agreement is fixed and will not be adjusted for changes in our business, assets, liabilities, prospects, outlook, financial condition or operating results or in the event of any change in the market price of, analyst estimates of, or projections relating to, our common stock;
- receipt of the all-cash per share merger consideration under the Merger Agreement is taxable to stockholders that are treated as U.S. holders for U.S. federal income tax purposes; and
- if the merger is completed, our stockholders will forego the opportunity to realize the potential long-term value of the successful execution of our current strategy as an independent company.

While the merger is pending, we are subject to business uncertainties and contractual restrictions that could harm our business relationships, financial condition, operating results, cash flows, and business.

During the period prior to the closing of the merger, our business is exposed to certain inherent risks and certain restrictions on our business under the terms of the Merger Agreement that could harm our business relationships, financial condition, operating results, cash flows, and business, including:

- potential uncertainty regarding our future plans and strategy, including business model changes and transformation;
- whether advertisers continue their spending on our platform;
- our inability to attract and retain people on Twitter and increase their level of engagement, including ad engagement, and its impact on revenue;
- our inability to develop or acquire new products, product features and services, improve our existing products and services, including with respect to Promoted Products, video and performance advertising, or increase or maintain the value of our products and services;
- the possibility of disruption to our business and operations resulting from the announcement and pendency of the merger, including diversion of management attention and resources;
- our inability to attract and retain key personnel and recruit prospective employees, and the possibility that our current employees could be distracted, and their productivity decline as a result, due to uncertainty regarding the merger;
- the inability to pursue alternative business opportunities or make changes to our business pending the completion of the merger, and other restrictions on our ability to conduct our business;
- our inability to freely issue securities, incur indebtedness (subject to certain exceptions), or declare or authorize any dividend or distribution without Parent's approval;
- our inability to solicit other acquisition proposals during the pendency of the merger;
- the amount of the costs, fees, expenses and charges related to the Merger Agreement and the merger, which may materially and adversely affect our financial condition and cash flows;
- negative impacts arising from global and domestic economic and geopolitical trends and events, including the conflict in Ukraine and the COVID-19 pandemic; and
- other developments beyond our control that may affect the timing or success of the merger.

If any of these effects were to occur, it could materially and adversely impact our business, cash flows, results of operations or financial condition, as well as the market price of our common stock and our perceived value, regardless of whether the merger is completed.

Litigation may arise in connection with the merger, which could be costly, prevent consummation of the merger, divert management's attention and otherwise materially harm our business.

Regardless of the outcome of any future litigation related to the merger, such litigation may be time-consuming and expensive and may distract our management from running the day-to-day operations of our business. The litigation costs and diversion of management's attention and resources to address the claims and counterclaims in any litigation related to the merger may materially adversely affect our business, results of operations, prospects, cash flows, and financial condition. If the merger is not consummated for any reason, litigation could be filed in connection with the failure to consummate the merger. Any litigation related to the merger may result in negative publicity or an unfavorable impression of us, which could adversely affect the price of our common stock, impair our ability to recruit or retain employees, damage our relationships with our advertisers and other business partners, or otherwise materially harm our operations and financial performance.

Business and Operational Factors

If we fail to increase our mDAU, ad engagement or other general engagement on our platform, our revenue, business and operating results may be harmed.

Our mDAU and their level of engagement with advertising are critical to our success and our long-term financial performance will continue to be significantly determined by our success in increasing the growth rate of our mDAU as well as the number of ad engagements. Our mDAU growth rate has fluctuated over time, and it may slow or decline in general or in certain geographies or among certain groups. To the extent our mDAU growth rate slows or the absolute number of mDAU declines, our revenue growth will become dependent on our ability to increase levels of engagement on Twitter, generate advertiser demand, and increase revenue growth from third-party publishers' websites and applications, data licensing and other offerings. We generate a substantial majority of our revenue based upon engagement with the ads that we display. A number of factors have affected and could potentially negatively affect mDAU growth and engagement, including if:

- accounts, including influential accounts, such as those of world leaders, government officials, celebrities, athletes, journalists, sports teams, media outlets and brands or certain age demographics, do not contribute unique or engaging content, or engage with other products, services or activities as an alternative to ours;
- we are unable to convince people of the value and usefulness of our products and services;
- there is a decrease in the perceived quality, usefulness, trustworthiness or relevance of the content generated by people on Twitter or by our content partners;
- the actions we take to better foster a healthy conversation or to improve relevancy negatively impact, or are perceived to negatively impact, people's experiences on the platform;
- there are concerns related to communication, privacy, data protection, safety, cybersecurity, spam, manipulation or other hostile or inappropriate usage or other factors, or our health efforts result in the removal of certain accounts;
- we remove certain influential accounts from our platform for violations of our terms of service or otherwise;
- our content partners terminate their relationships with us or do not renew their agreements on economic or other terms that are favorable to us;
- technical or other problems prevent us from delivering our products or services in a rapid and reliable manner or otherwise affect people's experiences on Twitter;
- people have difficulty installing, updating, or otherwise accessing our products or services on mobile devices as a result of actions by us or third parties that we rely on to distribute our products and deliver our services;
- changes in our products or services that are mandated by, or that we elect to make to address, laws (such as the General Data Protection Regulation (GDPR) and the California Consumer Protection Act (CCPA)) or legislation, inquiries from legislative bodies, regulatory authorities or litigation (including settlements or consent decrees) adversely affect our products or services;
- we fail to provide adequate customer service; or
- we do not maintain our brand image or reputation.

We have made certain projections regarding our mDAU growth. If we are unable to achieve these projections, or to generally increase our mDAU or engagement, or if these metrics decline, our products and services could be less attractive to people on Twitter, as well as to advertisers, content partners and platform partners, which would have a material and adverse impact on our business, financial condition and operating results.

We generate the substantial majority of our revenue from advertising. The loss of advertising revenue could harm our business.

The substantial majority of our revenue is currently generated from third parties advertising on Twitter. We generate substantially all of our advertising revenue through the sale of our Promoted Products: Promoted Ads, Twitter Amplify, Follower Ads and Twitter Takeover. As is common in our industry, our advertisers do not have long-term advertising commitments with us.

In addition, many of our advertisers purchase our advertising services through one of several large advertising agencies' holding companies. To sustain or increase our revenue, we must add new advertisers and encourage existing advertisers to maintain or increase the amount of advertising inventory purchased through our platform and adopt new features and functionalities that we add to our platform. However, advertising agencies and potential new advertisers may view our Promoted Products or any new products or services we offer as experimental and unproven, and we may need to devote additional time and resources to educate them about our products and services. Further, our advertisers' ability to effectively target their advertising to our audience's interests may be impacted by the degree to which people on Twitter agree in our settings to certain types of personalization or ad targeting, which could have an impact on our revenue. People that already have accounts may change their choices as a result of changes to our privacy control settings that we have implemented or may implement in the future, and people new to Twitter may choose varied levels of personalization, whether in connection with future changes we make to product privacy settings, regulations, regulatory actions, the customer experience, or otherwise.

Changes to operating systems' practices and policies, such as Apple's changes related to its App Tracking Transparency policy, have reduced and may continue to reduce the quantity and quality of the data and metrics that can be collected or used by us and our partners or harm our ability to target advertising. These limitations have affected and may continue to adversely affect both our and our advertisers' ability to effectively target advertisements and measure their performance, thereby reducing the demand and pricing for our advertising products and harming our business, and have led to us to retool some of our revenue products and adjust our product roadmap in light of Apple's changes. Additionally, in February 2022, Google announced it planned to adopt similar restrictions on tracking activity across Android devices. The impact of these changes on the overall mobile advertising ecosystem, our business, and the developers, partners, and advertisers in the ecosystem are evolving and their ultimate impact is not yet clear. Over time, personalization rates will impact our ability to grow our performance advertising business. Advertisers also may choose to use our free products and services instead of our Promoted Products. Advertisers will not continue to do business with us, or they will reduce the prices they are willing to pay to advertise with us, if we do not deliver ads in an effective manner, or if they do not believe that their investment in advertising with us will generate a competitive return on investment relative to alternatives, including online, mobile and traditional advertising platforms. In addition, competition for advertising is becoming increasingly more intense, and our advertising revenue could be further impacted by escalating competition for digital ad spending.

Our advertising revenue growth is primarily driven by increases in mDAU, increases in ad pricing or number of ads shown and increases in our clickthrough rate. To date, our available advertising inventory has been greater than demand. Our future revenue growth, however, may be limited by available advertising inventory for specific ad types on certain days if we do not increase our mDAU or monetize our larger global audience. Our advertising revenue also could be affected by a number of other factors, including advertiser reaction to content published on our platform or our policies and responses thereto, bugs or other product issues that may impact our ability to effectively help advertisers target ads or share data with our measurement and ad partners. In addition, macroeconomic factors, such as supply chain disruptions, inflation, and the impacts of the war in Ukraine, have caused advertisers to reduce or delay ad spending and may continue to do so. The occurrence of any of these factors could result in a reduction in demand for our ads, which may reduce the prices we receive for our ads, either of which would adversely impact our revenue, business, financial condition and operating results.

If we are unable to compete effectively for people to use our platform, and for content and data partners, our business and operating results could be harmed.

We face intense competition for people to use our platform, and for content and data partners. We compete for our audience against a variety of social networking platforms, messaging companies and media companies, some of which have greater financial resources, larger audiences or more established relationships with advertisers, such as Meta (including Facebook, Instagram and WhatsApp), Alphabet (including Google and YouTube), Microsoft (including LinkedIn), Snapchat, TikTok, Pinterest, and Yahoo, or in certain regions WeChat, Kakao and Line. New or existing competitors may draw people towards their products or services and away from ours by introducing new product features, including features similar to those we offer, investing their greater resources in audience acquisition efforts or otherwise developing products or services that audiences choose to engage with rather than Twitter, any of which could decrease mDAU growth or engagement and negatively affect our business.

We also compete with respect to content generated by our content partners and the availability of applications developed by platform partners. We may not establish and maintain relationships with content partners who publish on our platform or platform partners who develop applications that integrate with our platform. Our content and platform partners may choose to publish content on, or develop applications for, other platforms, and if they cease to utilize our platform or decrease their use of our platform, then mDAU, engagement, and advertising revenue may decline.

We believe that our ability to compete effectively for audiences and content partners depends upon many factors both within and beyond our control, including:

- the popularity, usefulness, ease of use, performance and reliability of our products and services compared to those of our competitors, as well as our reputation and brand, and our ability to adapt to continuously evolving

preferences and expectations of people on Twitter, advertisers, content partners, platform partners and developers;

- the amount, quality and timeliness of content generated on our platform, including the relative mix of ads;
- the timing and market acceptance of our products and services;
- the prominence of our applications in application marketplaces and of our content in search engine results, as well as those of our competitors;
- our ability, in and of itself, and in comparison to the ability of our competitors, to develop new products and services and enhancements to existing products and services, and to maintain the reliability and security of our products and services as usage increases globally;
- changes mandated by, or that we elect to make to address legislation, regulatory authorities or litigation, including settlements, antitrust matters, consent decrees and privacy, data protection and cybersecurity laws and regulations, some of which may have a disproportionate effect on us compared to our competitors; and
- the continued adoption and monetization of our products and services internationally.

Additionally, there have been significant acquisitions and consolidation by and among our actual and potential competitors. We anticipate this trend of consolidation will continue, which will present heightened competitive challenges for our business. Acquisitions by our competitors may result in reduced functionality of our products and services. For example, following Facebook's acquisition of Instagram, Facebook disabled Instagram's photo integration with Twitter such that Instagram photos were no longer viewable within Tweets and people are instead re-directed to Instagram to view Instagram photos through a link within a Tweet. As a result, people who use Twitter may be less likely to click on links to Instagram photos in Tweets, and people who use Instagram may be less likely to Tweet or remain active on Twitter. Any similar elimination of integration with Twitter in the future, whether by Facebook or other competitors, may adversely impact our business and operating results. Consolidation may also enable our larger competitors to offer bundled or integrated products that feature alternatives to our platform and provide alternative opportunities for advertisers.

If we are not able to compete effectively for audience, content and platform partners, our mDAU and engagement would decline and our business and operating results would be materially and adversely impacted.

If we are unable to compete effectively for advertising spend, our business and operating results could be harmed.

We face significant competition for advertiser spend. We compete against online and mobile businesses and traditional media outlets, such as television, radio and print, for advertising budgets. In order to grow our revenue and improve our operating results, we must increase our share of spending on advertising relative to our competitors, many of which are larger companies that offer more traditional and widely accepted advertising products. In addition, some of our larger competitors have substantially broader product or service offerings and leverage their relationships based on other products or services to gain additional share of advertising budgets.

We believe that our ability to compete effectively for advertiser spend depends upon many factors both within and beyond our control, including:

- the size and composition of our audience relative to those of our competitors;
- our ad targeting and measurement capabilities, and those of our competitors;
- the timing and market acceptance of our advertising services, and those of our competitors, including our ability to demonstrate to advertisers the value of our advertising services, particularly during the periods in which they are determining their budgets, which may be annually or biannually;
- our marketing and selling efforts, and those of our competitors;
- the pricing of our advertising services, including the actual or perceived return our advertisers receive from our advertising services, and those of our competitors; and
- our reputation and the strength of our brand relative to our competitors, including advertisers' perception of the health and safety of our platform.

If we are not able to compete effectively for advertiser spend, our mDAU and engagement would decline and our business and operating results would be materially and adversely impacted.

Our prioritization of the long-term health of our service may adversely impact our short-term operating results.

We believe that our long-term success depends on our ability to improve the health of the public conversation on Twitter. We have made this one of our top priorities and have focused our efforts on improving the quality of that conversation, including by devoting substantial internal resources to our strategy. These efforts include the reduction of abuse, harassment, spam, manipulation and malicious automation on the platform, as well as a focus on improving information quality (including information around elections, the COVID-19 pandemic, and the war in Ukraine), and the health of conversation on Twitter. Some of the health initiatives that we have implemented as part of our ongoing commitment to a healthy public conversation have negatively impacted, and may in the future negatively impact, our publicly reported metrics in a few ways.

First, our health efforts include the removal of accounts pursuant to our terms and services that are abusive, spammy, fake or malicious, and these accounts may have been included in our mDAU, as well as actions taken to detect and challenge potentially automated, spammy or malicious accounts during the sign-up process. If we make a sudden improvement to one of the algorithms we use to detect spammy or suspicious behavior, we may remove a larger number of accounts as a result and impact the year-over-year average of mDAU growth. Additionally, we may remove certain influential accounts for violations of our terms of service and the removal of such accounts has in the past reduced and may in the future reduce our mDAU growth and engagement.

Second, we are also making active decisions to prioritize certain health-related initiatives over other near-term product improvements that may drive more usage of Twitter as a daily utility. These decisions may not be consistent with the short-term expectations of our advertising customers or investors and may not produce the long-term benefits that we expect, in which case our mDAU growth and engagement, our relationships with advertisers and our business and operating results could be harmed.

Our decision to invest in the long-term health of our service may not produce the long-term benefits that we expect, in which case our mDAU growth and engagement, our relationships with advertisers and our business and operating results would be adversely impacted, and may not be consistent with the expectations of investors, which could have a negative effect on the trading price of our common stock.

Our prioritization of innovations to improve the experience of people using our products and services and performance for advertisers in the long term may adversely impact our short-term operating results and our new or enhanced products, product features or services may fail to increase engagement on our platform or generate revenue.

We encourage employees to quickly develop and help us launch new and innovative features. We focus on improving the experience for people using our products and services, which includes measures to help protect the privacy of people on Twitter. Similarly, we prioritize developing new and improved products and services for advertisers on our platform. We frequently make product, product feature and service decisions that may reduce our short-term operating results if we believe that the decisions are consistent with our goals to improve the long-term experience for people on Twitter and/or performance for advertisers, which we believe will improve our operating results over the long term. For example, in January 2022, we completed the sale of our MoPub business. The sale of MoPub enables us to focus on key areas of the business, including performance-based advertising, small and medium-sized business (SMB) offerings, and commerce initiatives on Twitter.

Our industry is subject to rapid and frequent changes in technology, evolving customer needs and the frequent introduction by our competitors of new and enhanced offerings. We must constantly assess the playing field and determine whether we need to improve or re-allocate resources amongst our existing products and services or create new ones (independently or in conjunction with third parties). Our ability to increase mDAU and engagement, attract content partners, advertisers and platform partners and generate revenue will depend on those decisions. We may introduce significant changes to our existing products and services or develop and introduce new and unproven products and services, including technologies with which we have little or no prior development or operating experience. For example, we are in the early stages of exploring additional potential revenue product opportunities that could, if successful, complement our advertising business in the future, although we do not expect any significant revenue attributable to these opportunities in the near-term and these opportunities may not prove successful at all. We are also continuing our work to increase the stability, performance and scale of our ads platform and our Mobile Application Promotion (MAP) product, and such work will take place over multiple quarters, and any positive revenue impact will be gradual in its impact.

If our decisions to invest in product innovations rather than short-term results do not produce the long-term benefits that we expect, and if our new or enhanced products, product features or services fail to engage people on Twitter, content partners and advertisers, we may fail to attract or retain mDAU or to generate sufficient revenue or operating profit to justify our investments, and our business, financial condition and operating results would be adversely impacted.

If we are unable to maintain and promote our brand, our business and operating results may be harmed.

We believe that maintaining and promoting our brand is critical to increasing mDAU, content partners and advertiser spend. Maintaining and promoting our brand will depend largely on our ability to continue to provide timely, useful, reliable and innovative products and services with a focus on a positive experience on Twitter, which we may not do successfully. We may introduce new features, products, services or terms of service that people on Twitter, content partners, advertisers or platform partners do not like, which may negatively affect our brand. Additionally, the actions of content partners may affect our brand if people do not have a positive experience using third-party applications or websites integrated with Twitter or that make use of Twitter content. We will also continue to experience media, legislative or regulatory scrutiny of our decisions regarding privacy, data protection, cybersecurity, content (including our removal of certain influential accounts for violations of our terms of service) and other issues, which may adversely affect our reputation and brand. Our brand may also be negatively affected by the actions of people that are hostile or inappropriate to other people, by accounts impersonating other people, by accounts identified as spam, by use or perceived use, directly or indirectly, of our products or services by people (including governments and government-sponsored actors) to disseminate information that may be viewed as misleading (or intended to manipulate people's opinions), by accounts introducing excessive amounts of spam on our platform, by third parties obtaining control over people's accounts, such as the security breach in July 2020 whereby attackers gained control of certain highly-visible accounts, or by other security or cybersecurity incidents. Maintaining and enhancing our brand may require us to make substantial investments and these investments may not achieve the desired goals.

Additionally, we and our executive leadership receive a high degree of media coverage around the world. Negative publicity about our company or executives, including about the quality and reliability of our products or of content shared on our platform, changes to our products, policies and services, our privacy, data protection, policy enforcement and cybersecurity practices (including actions taken or not taken with respect to certain accounts or reports regarding government surveillance or compliance with government legal requests), litigation, regulatory activity, the actions of certain accounts (including actions taken by prominent accounts on our platform or the dissemination of information that may be viewed as misleading or manipulative), even if inaccurate, could adversely affect our reputation. Such negative publicity and reputational harm could adversely affect mDAU and their confidence in and loyalty to our platform and could result in decreased revenue or increased costs to reestablish our brand, which would adversely impact our business, financial condition and operating results.

We depend on highly skilled personnel to grow and operate our business. If we are unable to hire, retain and motivate our personnel, we may not be able to grow effectively.

Our future success and strategy will depend upon our continued ability to identify, hire, develop, motivate and retain highly skilled personnel. We depend on contributions from our employees, and, in particular, our senior management team, to execute efficiently and effectively. We do not have employment agreements other than offer letters with any member of our senior management or other key employees, and we do not maintain key person life insurance for any employee. We also face significant competition for experienced employees, whose talents are in high demand. As a result, we may not be able to retain our existing employees or hire new employees quickly enough to meet our needs.

From time to time, we have also experienced high voluntary attrition, and in those times, the resulting influx of new leaders and other employees has required us to expend time, attention and resources to recruit and retain talent, restructure parts of our organization and train and integrate new employees. In addition, to attract and retain skilled personnel, we have had to offer, and believe we will need to continue to offer, highly competitive compensation packages. We may need to invest significant amounts of cash and equity to attract and retain employees, and we may not realize sufficient return on these investments. In addition, changes to U.S. immigration and work authorization laws and regulations can be significantly affected by political forces and levels of economic activity. Our business may be materially and adversely affected if legislative or administrative changes to immigration or visa laws and regulations impair our hiring processes or projects involving personnel who are not citizens of the country where the work is to be performed. If we are not able to effectively attract and retain employees, we may not be able to innovate or execute quickly on our strategy and our ability to achieve our strategic objectives will be adversely impacted, and our business will be harmed.

We also believe that our culture and core values have been, and will continue to be, a key contributor to our success and our ability to foster the innovation, creativity and teamwork we believe we need to support our operations. We allow most of our employees to work where they feel most productive, whether that is working full-time from home, from a Twitter office or splitting their time between their home and a Twitter office. If we fail to effectively manage our hiring needs and successfully integrate our new hires, our efficiency and ability to meet our forecasts, as well as our culture, employee morale, productivity and retention, could suffer, and our business and operating results would be adversely impacted.

Our products, mDAU growth, and engagement depend upon the availability of a variety of third-party services and systems and the effective interoperability with operating systems, networks, devices, web browsers and standards. We do not control all of these systems and cannot guarantee their availability, and we cannot guarantee that third parties will not take actions that harm our products or profitability.

One of the reasons people come to Twitter every day is for real-time information, and our products and the success of our business is dependent upon the ability of people to access the Internet and the proper functioning of the various operating systems, platforms, and services upon which we rely. These systems are provided and controlled by factors outside of our control, including nation-state actors who may suppress or censor our products, and broadband and Internet access marketplace, including incumbent telephone companies, cable companies, mobile communications companies, government-owned service providers, device manufacturers and operating system providers. Any of these actors could take actions that degrade, disrupt or increase the cost of access to our products or services, which would, in turn, negatively impact our business. The adoption or repeal of any laws or regulations that adversely affect the growth, popularity or use of the Internet, including laws or practices limiting Internet neutrality, could decrease the demand for, or the usage of, our products and services, increase our cost of doing business and adversely affect our operating results. For example, access to Twitter is blocked in China, is restricted in Russia and has been intermittently blocked in Turkey in the past.

We also rely on other companies to maintain reliable network systems that provide adequate speed, data capacity and security. We utilize third-party cloud computing services in connection with certain aspects of our business and operations, and any disruption of, or interference with, our use of such cloud services could adversely impact our business and operations. As the Internet continues to experience growth in the number of consumers, frequency of use and amount of data transmitted, the Internet infrastructure that we rely on may be unable to support the demands placed upon it. The failure of the Internet infrastructure that we rely on, even for a short period of time, could undermine our operations and harm our operating results.

Furthermore, these systems, devices or software or services may experience changes, bugs or technical issues that may affect the availability of services or the accessibility of our products. We have experienced, and may in the future experience, service disruptions, outages and other performance problems due to a variety of factors, including infrastructure changes, human or software errors, hardware failure, capacity constraints due to an overwhelming number of people accessing our products and services simultaneously, computer viruses and denial of service or fraud or security attacks. In the past, we have experienced brief service outages during which Twitter.com and Twitter mobile clients were inaccessible as a result, in part, of software misconfigurations. Additionally, although we are investing significantly to improve the capacity, capability and reliability of our infrastructure, we are not currently serving traffic equally through our co-located data centers that support our platform. Accordingly, in the event of a significant issue at the data center supporting most of our network traffic, some of our products and services may become inaccessible to the public or the public may experience difficulties accessing our products and services. Any disruption or failure in our infrastructure could hinder our ability to handle existing or increased traffic on our platform, which could significantly harm our business.

The availability of these services are also dependent upon our relationships with third parties, which may change, including if they change their terms of service or policies that diminish the functionality of our products and services, make it difficult for people to access our content, limit our ability to target or measure the effectiveness of ads, impose fees related to our products or services or give preferential treatment to competitive products or services could adversely affect usage of our products and services. Additionally, some of our mobile carriers have experienced infrastructure issues due to natural disasters, which have caused deliverability errors or poor quality communications with our products. Because a majority of people on Twitter access our products and services through mobile devices, we are particularly dependent on the interoperability of our products and services with mobile devices and operating systems in order to deliver our products and services. We also may not be successful in developing relationships with key participants in the mobile industry or in developing products or services that operate effectively with these operating systems, networks, devices, web browsers and standards. Further, if the number of platforms for which we develop our product expands, it will result in an increase in our operating expenses. In order to deliver high quality products and services, it is important that our products and services work well with a range of operating systems, networks, devices, web browsers and standards that we do not control. In the event that it is difficult for people to access and use our products and services, particularly on their mobile devices, our mDAU growth and engagement could be harmed, and our business and operating results could be adversely impacted.

Our release of new products, product features and services on mobile devices is dependent upon and can be impacted by digital storefront operators, such as the Apple App Store and Google Play Store review teams, which decide what guidelines applications must operate under and how to enforce such guidelines. Such review processes can be difficult to predict and certain decisions may harm our business. Additionally, changes to operating systems' practices and policies, such as Apple's changes related to its App Tracking Transparency policy, have reduced and may continue to reduce the quantity and quality of the data and metrics that can be collected or used by us and our partners or our ability to target advertising. In February 2022, Google announced it planned to adopt similar restrictions on tracking activity across Android devices. These limitations have affected and may continue to adversely affect both our and our advertisers' ability to effectively target advertisements and measure their performance, thereby reducing the demand and pricing for our advertising products and harming our business.

Spam and fake accounts could diminish the experience on our platform, which could damage our reputation and deter people from using our products and services.

“Spam” on Twitter refers to a range of abusive activities that are prohibited by our terms of service and is generally defined as unsolicited, repeated actions that negatively impact other people with the general goal of drawing attention to a given account, site, product or idea. This includes posting large numbers of unsolicited mentions of an account, duplicate Tweets, malicious automation, misleading links (e.g., to malware or “click-jacking” pages) or other false or misleading content, and aggressively following and unfollowing accounts, adding accounts to lists, sending invitations, Retweeting and liking Tweets to inappropriately attract attention. Our terms of service prohibit the creation of serial or bulk accounts, both manually or using automation, for disruptive or abusive purposes, such as to Tweet spam or to artificially inflate the popularity of accounts seeking to promote themselves on Twitter. Although we continue to invest resources to reduce spam and fake accounts on Twitter, which includes our investments to improve the health of the public conversation on Twitter, we expect spammers will continue to seek ways to act inappropriately on our platform. In addition, we expect that increases in the number of accounts on our platform will result in increased efforts by spammers to misuse our platform. We continuously combat spam and fake accounts, including by suspending or terminating accounts we believe to be spammers and launching algorithmic changes focused on curbing abusive activities. Our actions to combat spam and fake accounts require significant resources and time. If spam and fake accounts increase on Twitter, this could hurt our reputation for delivering relevant content or reduce mDAU growth rate and mDAU engagement and result in continuing operational cost to us.

Our products may contain errors or our security measures may be breached, resulting in the exposure of private information. Our products and services may be subject to attacks that degrade or deny the ability of people to access our products and services. These issues may result in the perception that our products and services are not secure, and people on Twitter and advertisers may curtail or stop using our products and services and our business and operating results could be harmed.

Our products and services involve the storage and transmission of people's and advertisers' information, and security incidents, including those caused by unintentional errors and those intentionally caused by third parties, may expose us to a risk of loss of this information, litigation, increased security costs and potential liability. We and our third-party service providers experience cyber-attacks of varying degrees on a regular basis. We expect to incur significant costs in an effort to detect and prevent security breaches and other security-related incidents, including those that our third-party suppliers and service providers may suffer, and we may face increased costs in the event of an actual or perceived security breach or other security-related incident. In particular, the COVID-19 pandemic has increased the opportunities available to criminals, as more companies and individuals work online, and as such, the risk of a cybersecurity incident potentially occurring has increased. In addition, the risk of state-supported and geopolitical-related cybersecurity incidents may increase in connection with the war in Ukraine. We cannot provide assurances that our preventative efforts will be successful. If an actual or perceived breach of our security occurs, the market perception of the effectiveness of our security measures could be harmed, people on Twitter and our advertisers may be harmed, lose trust and confidence in us, decrease the use of our products and services or stop using our products and services in their entirety. We may also incur significant legal and financial exposure, including legal claims, higher transaction fees and regulatory fines and penalties. Any of these actions could have a material and adverse effect on our business, reputation and operating results. While our insurance policies include liability coverage for certain of these matters, if we experienced a significant security incident, we could be subject to liability or other damages that exceed our insurance coverage.

Our products and services incorporate complex software and we encourage employees to quickly develop and help us launch new and innovative features. Our software, including any open source software that is incorporated into our code, has contained, and may now or in the future contain, errors, bugs or vulnerabilities. For example, in 2019, we discovered, and took steps to remediate, bugs that primarily affected our legacy MAP product, impacting our ability to target ads and share data with our measurement and ad partners. We also discovered that certain personalization and data settings were not operating as expected. As was the case with these errors, errors in our software code may only be discovered after the product or service has been released. Errors, vulnerabilities, or other design defects within the software on which we rely may result in a negative experience for people on Twitter, partners and advertisers who use our products, delay product introductions or enhancements, result in targeting, measurement, or billing errors, compromise our ability to protect the data of the people on Twitter and/or our intellectual property or lead to reductions in our ability to provide some or all of our services. We have policies and procedures in place to address security as part of our software development, testing, evaluation, and deployment process. Additionally, we have implemented and maintain vulnerability scanning and management policies and procedures, including a bug bounty program. However, these measures may not be sufficient in all cases. Any errors, bugs or vulnerabilities discovered in our code after release could result in damage to our reputation, loss of accounts, loss of content or platform partners, loss of advertisers or advertising revenue or liability for damages or other relief sought in lawsuits, regulatory inquiries or other proceedings, any of which could adversely impact our business and operating results.

Our products operate in conjunction with, and we are dependent upon, third-party products and components across a broad ecosystem. There have been and may continue to be significant attacks on certain 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 services. If there is a security vulnerability, error, or other bug in one of these third-party products or components and if there is a security exploit targeting them, we could face increased costs, liability claims, reduced revenue, or harm to our reputation or competitive position. The natural sunset of third-party products and operating systems that we use requires that our infrastructure teams reallocate time and attention to migration and updates, during which period potential security vulnerabilities could be exploited.

Unauthorized parties may also gain access to Twitter handles and passwords without attacking Twitter directly and, instead, access people's accounts by using credential information from other recent breaches, using malware on victim machines that are stealing passwords for all sites, or a combination of both. In addition, some of our developers or other partners, such as third-party applications to which people have given permission to Tweet on their behalf, may receive or store information provided by us or by people on Twitter through mobile or web applications integrated with us. If these third parties or developers fail to adopt or adhere to adequate data security practices, or in the event of a breach of their networks, our data or data of people on Twitter may be improperly accessed, used or disclosed. Unauthorized parties have obtained, and may in the future obtain, access to our data, data of people on Twitter or our advertisers' data. Any systems failure or actual or perceived compromise of our security that results in the unauthorized access to or release of data of people on Twitter or our advertisers' data, such as credit card data, could significantly limit the adoption of our products and services, as well as harm our reputation and brand and, therefore, our business.

Our security measures may also be breached due to employee error, malfeasance or otherwise. Additionally, outside parties may attempt to fraudulently induce employees, people on Twitter, or advertisers to disclose sensitive information in order to gain access to our data, data of people on Twitter or advertisers' data, or may otherwise obtain access to such data or accounts. Since people on Twitter and our advertisers may use Twitter to establish and maintain online identities, unauthorized communications from Twitter accounts that have been compromised may damage their personal security, reputations and brands as well as our reputation and brand. Because the techniques used to obtain unauthorized access, disable or degrade service or sabotage systems change frequently and often are not recognized until launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures.

For example, in July 2020, we became aware of what we believe to be a coordinated social engineering attack by people who successfully targeted one or more of our employees with access to internal systems and tools. The attackers used this access to target a small group of accounts (130) and to gain control of a subset of these accounts and send Tweets from those accounts and access non-public information relating to at least some of those accounts. This security breach may have harmed the people and accounts affected by it. It may also impact the market perception of the effectiveness of our security measures, and people may lose trust and confidence in us, decrease the use of our products and services or stop using our products and services in their entirety. It may also result in damage to our reputation, loss of accounts, loss of content or platform partners, loss of advertisers or advertising revenue, or legal and financial exposure, including legal claims, regulatory inquiries or other proceedings. Any of these effects could have a material and adverse impact on our business, reputation and operating results.

Our international operations are subject to increased challenges and risks.

We have offices and employees around the world and our products and services are available in multiple languages. However, our ability to manage our business, monetize our products and services and conduct our operations internationally requires considerable management attention and resources and is subject to the particular challenges of supporting a rapidly growing business in an environment of multiple languages, cultures, customs, legal and regulatory systems, alternative dispute systems and commercial markets. Our international operations have required and will continue to require us to invest significant funds and other resources. Operating internationally subjects us to new risks and may increase risks that we currently face, including risks associated with:

- recruiting and retaining talented and capable employees in foreign countries and maintaining our company culture across all geographies;
- providing our products and services and operating across a significant distance, in different languages and among different cultures, including the potential need to modify our products, services, content and features to ensure that they are culturally relevant in different countries;
- increased competition from largely regional websites, mobile applications and services that provide real-time communications and have strong positions in particular countries, which have expanded and may continue to expand their geographic footprint;
- differing and potentially lower levels of mDAU growth, engagement and ad engagement in new and emerging geographies;
- different levels of advertiser demand, including fluctuations in advertiser demand due to regional activities, regional economic effects of the COVID-19 pandemic and political upheaval;
- greater difficulty in monetizing our products and services, including costs to adapt our products and services in light of the manner in which people access Twitter in such jurisdictions, such as the use of feature phones in certain emerging markets such as India and Pakistan, and challenges related to different levels of Internet access or mobile device adoption in different jurisdictions;
- compliance with applicable foreign laws and regulations, including laws and regulations with respect to privacy, data protection, data localization, cybersecurity, taxation, consumer protection, copyright, fake news, hate speech, spam and content, as well as laws regarding the environment and climate change, and the risk of penalties to the people who use our products and services and individual members of management if our practices are deemed to be out of compliance;

- actions by governments or others to restrict access to Twitter or censor content on Twitter, such as how domestic Internet service providers in China have blocked access to Twitter and other countries, including Russia, Iran, Libya, Pakistan, Turkey, Syria and Nigeria, have intermittently restricted access to Twitter, whether these actions are taken for political reasons, in response to decisions we make regarding governmental requests or content generated by people on Twitter, or otherwise;
- actions by governments or others that may result in Twitter being unable or unwilling to continue to operate in a particular country or jurisdiction;
- longer payment cycles in some countries;
- credit risk and higher levels of payment fraud;
- operating in jurisdictions that do not protect intellectual property rights to the same extent as the United States;
- compliance with anti-bribery laws including, without limitation, compliance with the Foreign Corrupt Practices Act and the U.K. Bribery Act, including by our business partners;
- currency exchange rate fluctuations, as we conduct business in currencies other than U.S. dollars but report our operating results in U.S. dollars and any foreign currency forward contracts into which we enter may not mitigate the impact of exchange rate fluctuations;
- foreign exchange controls that might require significant lead time in setting up operations in certain geographic territories and might prevent us from repatriating cash earned outside the United States;
- political and economic instability in some countries, including the war in Ukraine;
- double taxation of our international earnings and potentially adverse tax consequences due to changes in the tax laws of the United States or the foreign jurisdictions in which we operate; and
- higher costs of doing business internationally, including increased accounting, travel, infrastructure and legal compliance costs.

If our revenue from our international operations, and particularly from our operations in the countries and regions where we have focused our spending, does not exceed the expense of establishing and maintaining these operations, our business and operating results will suffer. In addition, mDAU may grow more rapidly than revenue in international regions where our monetization of our products and services is not as developed. If we are unable to successfully expand our business, manage the complexity of our global operations or monetize our products and services internationally, it could adversely impact our business, financial condition and operating results.

The COVID-19 pandemic has disrupted and harmed, and may in the future disrupt and harm, our business, financial condition and operating results. We are unable to predict the extent to which it may impact our business, financial condition and operating results and the achievement of our strategic objectives in the future.

Our business, operations and financial performance have been, and may in the future be, negatively impacted by the COVID-19 pandemic and related public health responses, such as travel bans, restrictions, social distancing requirements and shelter-in-place orders. The pandemic and these related responses have caused, and may in the future cause, decreased advertiser demand for our platform, global slowdown of economic activity, disruptions of major events, volatility and disruption of financial markets, and changes in consumer behavior.

Our past results may not be indicative of our future performance, and historical trends in revenue, income (loss) from operations, net income (loss), and net income (loss) per share may differ materially. For example, to the extent the pandemic continues to disrupt economic activity globally, it could adversely affect our business, financial condition and operating results through prolonged decreases in advertising spend, credit deterioration of our customers, depressed economic activity, or declines in capital markets. The impacts of the COVID-19 pandemic, including supply chain constraints, labor shortages and inflation, have caused advertisers in a variety of industries to be cautious in their spending, and in 2021 and the first quarter of 2022 had a modest negative impact on, and may negatively impact in future periods, our advertising revenue. While the economy is reopening in various parts of the world, some countries and locations are reinstating lockdowns and other restrictions that make a full recovery difficult to predict. We continue to monitor the evolving situation and guidance from international and domestic authorities, including federal, state and local public health authorities, and there may be developments outside our control requiring us to adjust our operating plan.

We have incurred significant operating losses in the past, and we may not be able to maintain profitability or accurately predict fluctuations in our operating results from quarter to quarter.

While we have been profitable on a generally accepted accounting principles in the United States (GAAP) basis at times, our quarterly operating results have fluctuated in the past and will fluctuate in the future. As a result, our past quarterly operating results are not necessarily indicators of future performance. Our operating results in any given quarter have been and can be influenced by numerous factors, many of which we are unable to predict or are outside of our control, including:

- our ability to attract and retain mDAU, advertisers, content partners and platform partners;
- the occurrence of planned significant events or changes to the timing of events, such as major sporting events, political elections, or awards shows, or unplanned significant events, such as natural disasters and political revolutions, as well as seasonality which may differ from our expectations;
- the impacts of the COVID-19 pandemic and governmental and business actions in response thereto on the global economy;
- the pricing of our advertising services or data licensing, and our ability to maintain or improve revenue and margins;
- the development and introduction of new products or services, changes in features of existing products or services or de-emphasis or termination of existing products, product features or services;
- the actions of our competitors;
- increases in research and development, marketing and sales and other operating expenses that we may incur to grow and expand our operations and to remain competitive, including stock-based compensation expense and costs related to our technology infrastructure;
- costs related to the acquisition or divestiture of businesses, talent, technologies or intellectual property, including potentially significant amortization costs;
- changes as a result of acquisitions or dispositions of assets or businesses;
- system failures resulting in the inaccessibility of our products and services;
- actual or perceived privacy or cybersecurity breaches or incidents, and the costs associated with remediating any such breaches or incidents;
- adverse litigation judgments, settlements or other litigation-related costs, and the fees associated with investigating and defending claims;
- changes in the legislative or regulatory environment, including with respect to security, tax, privacy, data protection, or content, or enforcement by government regulators, including fines, orders or consent decrees;
- changes in reserves or other non-cash credits or charges, such as establishment or releases of deferred tax assets valuation allowance, impairment charges or purchase accounting adjustments;
- changes in our expected estimated useful life of property and equipment and intangible assets;
- fluctuations in currency exchange rates and changes in the proportion of our revenue and expenses denominated in foreign currencies;
- changes in U.S. generally accepted accounting principles; and
- changes in global or regional business or macroeconomic conditions, including the impacts of the war in Ukraine.

In January 2022, we completed the sale of our MoPub business. The sale of MoPub enables us to concentrate more of our efforts on the significant opportunity for performance-based advertising, SMB offerings, and commerce initiatives on Twitter.

Given the rapidly evolving markets in which we compete, our historical operating results may not be useful to you in predicting our future operating results. If our revenue growth rate slows, we expect that the seasonality in our business may become more pronounced and may in the future cause our operating results to fluctuate. For example, advertising spending is traditionally seasonally strong in the fourth quarter of each year, and we believe that this seasonality affects our quarterly results, which generally reflect higher sequential advertising revenue growth from the third to fourth quarter compared to sequential advertising revenue growth from the fourth quarter to the subsequent first quarter. Additionally, certain new revenue products or product features may carry higher costs relative to our other products, which may decrease our margins, and we may incur increased costs to scale our operations if mDAU and engagement on our platform increase. If we are unable to generate adequate revenue growth and to manage our expenses, we may incur significant losses in future periods and may not be able to maintain profitability.

We rely on assumptions and estimates to calculate certain of our key metrics, and real or perceived inaccuracies in such metrics may harm our reputation and negatively affect our business.

We calculate our mDAU using internal company data that has not been independently verified. While these numbers are based on what we believe to be reasonable calculations for the applicable period of measurement, there are inherent challenges in measuring mDAU and mDAU engagement. For example, there are a number of false or spam accounts in existence on our platform. We estimate that the average of false or spam accounts during the first quarter of 2022 continued to represent fewer than 5% of our mDAU during the quarter. However, this estimate is based on an internal review of a sample of accounts and we apply significant judgment in making this determination. As such, our estimation of false or spam accounts may not accurately represent the actual number of such accounts, and the actual number of false or spam accounts could be higher than we have currently estimated. We are continually seeking to improve our ability to estimate the total number of spam accounts and eliminate them from the calculation of our mDAU, but we otherwise treat multiple accounts held by a single person or organization as multiple accounts for purposes of calculating our mDAU because we permit people and organizations to have more than one account. Additionally, some accounts used by organizations are used by many people within the organization. As such, the calculations of our mDAU may not accurately reflect the actual number of people or organizations using our platform. We regularly review and may adjust our processes for calculating our internal metrics to improve their accuracy. Our measures of mDAU growth and engagement may differ from estimates published by third parties or from similarly-titled metrics of our competitors due to differences in methodology. If advertisers, content or platform partners or investors do not perceive our metrics to be accurate representations of our total accounts or mDAU engagement, or if we discover material inaccuracies in our metrics, our reputation may be harmed and content partners, advertisers and platform partners may be less willing to allocate their budgets or resources to our products and services, which could negatively affect our business and operating results. Further, as our business develops, we may revise or cease reporting metrics if we determine that such metrics are no longer accurate or appropriate measures of our performance. If investors, analysts or customers do not believe our reported measures, such as mDAU, are sufficient or accurately reflect our business, we may receive negative publicity and our operating results may be adversely impacted.

Our business is subject to the risks of earthquakes, fire, power outages, floods and other catastrophic events, and to interruption by man-made problems such as terrorism.

A significant natural disaster, such as the COVID-19 pandemic or an earthquake, fire, flood or significant power outage could have a material adverse impact on our business, operating results, and financial condition. For example, the COVID-19 pandemic led to certain business disruptions, including travel bans and restrictions, shelter-in-place orders and the postponement or cancellation of major events, which adversely affected demand for our advertising products and the economy as a whole, and which may have an adverse effect on our business, financial condition and operating results in the future. We have offices and a significant number of employees in the San Francisco Bay Area, a region known for seismic activity. Additionally, despite any precautions we may take, the occurrence of a natural disaster or other unanticipated problems at our data centers could result in lengthy interruptions in our services. In addition, our employees, offices, and infrastructure have recently been the subject of increased threats by extremists. Acts of terrorism and other geo-political unrest, including the ongoing war in Ukraine, could cause disruptions in our business. All of the aforementioned risks may be further increased if our disaster recovery plans prove to be inadequate. We have implemented a disaster recovery program, which allows us to move production to a back-up data center in the event of a catastrophe. Although this program is functional, we do not currently serve network traffic equally from each data center, so if our primary data center shuts down, there will be a period of time that our products or services, or certain of our products or services, will remain inaccessible or people may experience severe issues accessing our products and services. We do not carry business interruption insurance sufficient to compensate us for the potentially significant losses, including the potential harm to our business that may result from interruptions in our ability to provide our products and services. Any such natural disaster or man-made problem could adversely impact our business, financial condition and operating results.

Intellectual Property and Technology

Our business and operating results may be harmed by our failure to timely and effectively scale and adapt our existing technology and infrastructure.

As accounts generate more content, including photos and videos hosted by Twitter, we may be required to expand and adapt our technology and infrastructure to continue to reliably store, serve and analyze this content. It may become increasingly difficult to maintain and improve the performance of our products and services, especially during peak usage times, as our products and services become more complex and our account traffic increases. In addition, because we lease our data center facilities, we cannot be assured that we will be able to expand our data center infrastructure to meet demand in a timely manner, or on favorable economic terms. If people are unable to access Twitter or we are not able to make information available rapidly on Twitter, people may seek other channels to obtain the information, and may not return to Twitter or use Twitter as often in the future, or at all. This would negatively impact our ability to attract new people to Twitter, content partners and advertisers and increase the frequency of people returning to Twitter. We expect to continue to make significant investments to maintain and improve the capacity, capability and reliability of our infrastructure. To the extent that we do not effectively address capacity constraints, upgrade our systems as needed and continually develop our technology and infrastructure to accommodate actual and anticipated changes in technology, our business and operating results may be harmed.

We continue to scale the capacity of, and enhance the capability and reliability of, our infrastructure to support mDAU growth and increased activity on our platform. We expect that investments and expenses associated with our infrastructure will continue to grow, including the expansion and improvement of our data center operations and related operating costs, additional servers and networking equipment to increase the capacity of our infrastructure, increased utilization of third-party cloud computing and associated costs thereof, increased bandwidth costs and costs to secure our customers' data. The improvement of our infrastructure requires a significant investment of our management's time and our financial resources. If we fail to efficiently scale and manage our infrastructure, our business, financial condition and operating results would be adversely impacted.

Our intellectual property rights are valuable, and any inability to protect them could reduce the value of our products, services and brand.

Intellectual property rights are important assets of our business and we seek protection for such rights as appropriate. To establish and protect our trade secrets, trademarks, copyrights, and patents as well as restrictions in confidentiality, license and intellectual property assignment agreements we enter into with our employees, consultants and third parties. Various circumstances and events outside of our control, however, pose threats to our intellectual property rights. We may fail to obtain effective intellectual property protection, effective intellectual property protection may not be available in every country in which our products and services are available, or such laws may provide only limited protection. Also, the efforts we have taken to protect our intellectual property rights may not be sufficient or effective, and any of our intellectual property rights may be challenged, circumvented, infringed or misappropriated which could result in them being narrowed in scope or declared invalid or unenforceable. There can be no assurance our intellectual property rights will be sufficient to protect against others offering products or services that are substantially similar to ours and compete with our business.

We rely on restrictions on the use and disclosure of our trade secrets and other proprietary information contained in agreements we sign with our employees, contractors, and other third parties to limit and control access to and disclosure of our trade secrets and confidential information. These agreements may be breached, or this intellectual property may otherwise be disclosed or become known to our competitors, including through hacking or theft, which could cause us to lose any competitive advantage resulting from these trade secrets and proprietary information.

We are pursuing registration of trademarks and domain names in the United States and in certain jurisdictions outside of the United States. Effective protection of trademarks and domain names is expensive and difficult to maintain, both in terms of application and registration costs as well as the costs of defending and enforcing those rights. We may be required to protect our rights in an increasing number of countries, a process that is expensive and may not be successful or which we may not pursue in every country in which our products and services are distributed or made available.

We are party to numerous agreements that grant licenses to third parties to use our intellectual property. For example, many third parties distribute their content through Twitter, or embed Twitter content in their applications or on their websites, and make use of our trademarks in connection with their services. We have a policy designed to assist third parties in the proper use of our trademarks, and an internal team dedicated to enforcing this policy and protecting our brand. This team routinely reviews reports of improper and unauthorized use of the Twitter trademarks and issues takedown notices or initiates discussions with the third parties to correct the issues. However, there can be no assurance that we will be able to protect against the unauthorized use of our brand or trademarks. If the licensees of our trademarks are not using our trademarks properly and we fail to maintain and enforce our trademark rights, we may limit our ability to protect our trademarks which could result in diminishing the value of our brand or in our trademarks being declared invalid or unenforceable. There is also a risk that one or more of our trademarks could become generic, which could result in such trademark being declared invalid or unenforceable. For example, there is a risk that the word "Tweet" could become so commonly used that it becomes synonymous with any short comment posted publicly on the Internet, and if this happens, we could lose protection of this trademark.

We also seek to obtain patent protection for some of our technology. We may be unable to obtain patent protection for our technologies. Even if patents are issued from our patent applications, which is not certain, our existing patents, and any patents that may be issued in the future, may not provide us with competitive advantages or distinguish our products and services from those of our competitors. In addition, any patents may be contested, circumvented, or found unenforceable or invalid, and we may not be able to prevent third parties from infringing or otherwise violating them. Effective protection of patent rights is expensive and difficult to maintain, both in terms of application and maintenance costs, as well as the costs of defending and enforcing those rights.

Our Innovator's Patent Agreement (IPA) also can limit our ability to prevent infringement of our patents. In May 2013, we implemented the IPA, which we enter into with our employees and consultants, including our founders. The IPA, which applies to our current and future patents, allows us to assert our patents defensively. The IPA also allows us to assert our patents offensively with the permission of the inventors of the applicable patent. Under the IPA, an assertion of claims is considered to be for a defensive purpose if the claims are asserted: (i) against an entity that has filed, maintained, threatened or voluntarily participated in a patent infringement lawsuit against us or any people on Twitter, or any of our affiliates, customers, suppliers or distributors; (ii) against an entity that has used its patents offensively against any other party in the past ten years, so long as the entity has not instituted the patent infringement lawsuit defensively in response to a patent litigation threat against the entity; or (iii) otherwise to deter a patent litigation threat against us or people on Twitter, or any of our affiliates, customers, suppliers or distributors. In addition, the IPA provides that the above limitations apply to any future owner or exclusive licensee of any of our patents, which could limit our ability to sell or license our patents to third parties. In this case, while we may be able to claim protection of our intellectual property under other rights (such as trade secrets or contractual obligations with our employees not to disclose or use confidential information), we may be unable to assert our patent rights against third parties that we believe are infringing our patents, even if such third parties are developing products and services that compete with our products and services. For example, in the event that an inventor of one of our patents goes to work for another company and that company uses the inventor's patented invention to compete with us, we would not be able to assert that patent against such other company unless the assertion of the patent right is for a defensive purpose since it would be unlikely the employee would consent to offensive use of the patent against his or her current employer. In such event, we would need to rely on trade secret protection or the contractual obligation of the inventor to us not to disclose or use our confidential information. In addition, the terms of the IPA could affect our ability to monetize our intellectual property portfolio.

Significant impairments of our intellectual property rights, and limitations on our ability to assert our intellectual property rights against others, could harm our business and our ability to compete.

Also, obtaining, maintaining and enforcing our intellectual property rights is costly and time consuming. Any increase in the unauthorized use of our intellectual property would adversely impact our business, financial condition and operating results.

Many of our products and services contain open source software, and we license some of our software through open source projects, which may pose particular risks to our proprietary software, products, and services in a manner that could adversely impact our business.

We use open source software in our products and services and will use open source software in the future. In addition, we regularly contribute software source code to open source projects under open source licenses or release internal software projects under open source licenses, and anticipate doing so in the future. The terms of many open source licenses to which we are subject have not been interpreted by U.S. or foreign courts, and there is a risk that open source software licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to provide or distribute our products or services. Additionally, under some open source licenses, if we combine our proprietary software with open source software in a certain manner, third parties may claim ownership of, or demand release of, the open source software or derivative works that we developed using such software, which could include our proprietary source code. Such third parties may also seek to enforce the terms of the applicable open source license through litigation which, if successful, could require us to make our proprietary software source code freely available, purchase a costly license or cease offering the implicated products or services unless and until we can re-engineer them to avoid infringement. This re-engineering process could require significant additional research and development resources, and we may not be able to complete it successfully. In addition to risks related to open source license requirements, use of certain open source software may pose greater risks than use of third-party commercial software, since open source licensors generally do not provide warranties or controls on the origin of software. Any of these risks could be difficult to eliminate or manage, and, if not addressed, could adversely impact our business, financial condition and operating results.

We are currently, and expect to be in the future, party to intellectual property rights claims that are expensive and time consuming to defend, and, if resolved adversely, would adversely impact our business, financial condition and operating results.

Companies in the internet, technology and media industries are subject to litigation based on allegations of infringement, misappropriation or other violations of intellectual property rights. Many companies in these industries, including many of our competitors, have substantially larger patent and intellectual property portfolios than we do, which could make us a target for litigation as we may not be able to assert counterclaims against parties that sue us for patent, or other intellectual property infringement. In addition, various “non-practicing entities” that own patents and other intellectual property rights often attempt to assert claims in order to extract value from technology companies. From time to time we receive claims from third parties which allege that we have infringed upon their intellectual property rights. Further, from time to time we may introduce new products, product features and services, including in areas where we currently do not have an offering, which could increase our exposure to patent and other intellectual property claims from competitors and non-practicing entities. In addition, although our standard terms and conditions for our Promoted Products and public APIs do not provide advertisers and platform partners with indemnification for intellectual property claims against them, some of our agreements with advertisers, content partners, platform partners and data partners require us to indemnify them for certain intellectual property claims against them, which could require us to incur considerable costs in defending such claims, and may require us to pay significant damages in the event of an adverse ruling. Such advertisers, content partners, platform partners and data partners may also discontinue use of our products, services and technologies as a result of injunctions or otherwise, which could result in loss of revenue and adversely impact our business.

We presently are involved in a number of intellectual property lawsuits, and as we face increasing competition and develop new products, the number of patent and other intellectual property claims against us may grow. There may be intellectual property or other rights held by others, including issued or pending patents, that cover significant aspects of our products and services, and we cannot be sure that we are not infringing or violating, and have not infringed or violated, any third-party intellectual property rights or that we will not be held to have done so or be accused of doing so in the future. Any claim or litigation alleging that we have infringed or otherwise violated intellectual property or other rights of third parties, with or without merit, and whether or not settled out of court or determined in our favor, could be time-consuming and costly to address and resolve, and could divert the time and attention of our management and technical personnel. Some of our competitors have substantially greater resources than we do and are able to sustain the costs of complex intellectual property litigation to a greater degree and for longer periods of time than we could. The outcome of any litigation is inherently uncertain, and there can be no assurances that favorable final outcomes will be obtained in all cases. In addition, plaintiffs may seek, and we may become subject to, preliminary or provisional rulings in the course of any such litigation, including potential preliminary injunctions requiring us to cease some or all of our operations. We may decide to settle such lawsuits and disputes on terms that are unfavorable to us. Similarly, if any litigation to which we are a party is resolved adversely, we may be subject to an unfavorable judgment that may not be reversed upon appeal. The terms of such a settlement or judgment may require us to cease some or all of our operations or pay substantial amounts to the other party. In addition, we may have to seek a license to continue practices found to be in violation of a third-party’s rights. If we are required, or choose to enter into royalty or licensing arrangements, such arrangements may not be available on reasonable terms, or at all, and may significantly increase our operating costs and expenses. As a result, we may also be required to develop or procure alternative non-infringing technology, which could require significant effort and expense or discontinue use of the technology. An unfavorable resolution of the disputes and litigation referred to above would adversely impact our business, financial condition and operating results.

Regulatory and Legal

Our business is subject to complex and evolving U.S. and foreign laws and regulations. These laws and regulations are subject to change and uncertain interpretation, and could result in claims, changes to our business practices, monetary penalties, increased cost of operations or declines in mDAU growth, mDAU engagement or ad engagement, or otherwise harm our business.

We are subject to a variety of laws and regulations in the United States and abroad that involve matters central to our business, including privacy, data protection, cybersecurity, advertising, rights of publicity, content regulation, intellectual property, competition, protection of minors, consumer protection, provision of online payment services and credit card processing, securities law compliance, and taxation, as well as laws and regulations regarding the environment and climate change. For example, new content regulation laws may affect our ability to operate in certain markets and/or subject us to significant fines or penalties. Compliance with these laws may be onerous and/or inconsistent with our work to serve the public conversation. Many of these laws and regulations are still evolving and being tested in courts and new laws and regulations are being proposed. As a result, it is possible that these laws and regulations may be interpreted and applied in a manner that is inconsistent from country to country and inconsistent with our current policies and practices and in ways that could harm our business, particularly in the new and rapidly evolving industry in which we operate. Additionally, the introduction of new products or services may subject us to additional laws and regulations.

From time to time, governments, regulators and others have expressed concerns about whether our products, services or practices compromise the privacy or data protection rights of the people on Twitter and others. While we strive to comply with applicable laws and regulations relating to privacy, data protection and cybersecurity, our privacy policies and other obligations we may have with respect to privacy, data protection and cybersecurity, the failure or perceived failure to comply may result, and in some cases has resulted, in inquiries and other proceedings or actions against us by governments, regulators or others. A number of proposals have recently been adopted or are currently pending before federal, state and foreign legislative and regulatory bodies that could significantly affect our business. For example, the California Consumer Privacy Act (CCPA) requires, among other things, covered companies to provide disclosures to California consumers and afford such consumers the ability to opt-out of certain sales of personal information. Similar legislation has been proposed or adopted in other states. Additionally, the California Privacy Rights Act (CPRA) created obligations relating to consumer data beginning on January 1, 2022, with implementing regulations expected on or before July 1, 2022, and enforcement beginning July 1, 2023. On March 2, 2021, Virginia enacted the Virginia Consumer Data Protection Act (CDPA), a comprehensive privacy statute that becomes effective on January 1, 2023, and on June 8, 2021, Colorado enacted the Colorado Privacy Act (CPA), which takes effect on July 1, 2023. Utah enacted the Utah Consumer Privacy Act (UCPA), on March 24, 2022, which takes effect on December 31, 2023. The CDPA, CPA, and UCPA share similarities with the CCPA, CPRA, and legislation proposed in other states. Aspects of the CCPA, the CPRA 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. Moreover, foreign data protection, privacy, cybersecurity, and other laws and regulations are often more restrictive or burdensome than those in the United States. For example, the GDPR imposes stringent operational requirements for entities processing personal information and significant penalties for non-compliance, including fines of up to €20 million or 4% of total worldwide revenue, whichever is higher. Additionally, we have historically relied upon a variety of legal bases to transfer certain personal information outside of the European Economic Area (EEA), including the EU-U.S. Privacy Shield Framework, the Swiss-U.S. Privacy Shield Framework, and EU Standard Contractual Clauses (SCCs). These legal bases all have been, and may be, the subject of legal challenges and on July 16, 2020, the Court of Justice of the European Union (CJEU) invalidated the U.S.-EU Privacy Shield framework and imposed additional obligations on companies when relying on the SCCs. The Swiss-U.S. Privacy Shield framework subsequently was invalidated by the Swiss Federal Data Protection and Information Commissioner. These developments may result in different EEA data protection regulators applying differing standards for, or require ad hoc verification of measures taken with respect to, certain data flows. The CJEU's decision, the European Commission's issuance of new SCCs in June 2021, the use of which was required in connection with new contracts and new personal data processing operations as of September 27, 2021, the UK's issuance of its own new standard contractual clauses that became effective on March 21, 2022, and which are required to be used for new contracts as of September 21, 2022, continued guidance from the European Commission and European Data Protection Board (EDPB), and other developments with regard to cross-border data transfers may require us to take additional steps to legitimize impacted personal data transfers, and we may find it necessary or desirable to modify our data handling practices in connection with these or future legal challenges or other developments relating to cross-border data transfers. This could result in additional contractual negotiations and increased costs of compliance and limitations on our customers, vendors, and us. This CJEU decision and related developments, or future legal challenges or other developments, also could result in us being required to implement duplicative, and potentially expensive, information technology infrastructure and business operations in Europe or could limit our ability to collect or process personal information in Europe, and may serve as a basis for our personal data handling practices, or those of our customers and vendors, to be challenged. Moreover, the GDPR and other similar regulations require companies to give specific types of notice and in some cases seek consent from consumers and other data subjects before collecting or using their data for certain purposes, including some marketing activities. In addition to the GDPR, the European Commission has another draft regulation in the approval process that focuses on a person's right to conduct a private life. The proposed legislation, known as the Regulation of Privacy and Electronic Communications (ePrivacy Regulation), would replace the current ePrivacy Directive. Originally planned to be adopted and implemented at the same time as the GDPR, the ePrivacy Regulation is still being negotiated. Most recently, on February 10, 2021, the Council of the EU agreed on its version of the draft ePrivacy Regulation. If adopted, the earliest date for entry into force is in 2023, with broad potential impacts on the use of internet-based services and tracking technologies, such as cookies. Aspects of the ePrivacy Regulation remain for negotiation between the European Commission and the Council. Additionally, on January 13, 2022, the Austrian data protection authority published a decision ruling that the collection of personal data and transfer to the U.S. through Google Analytics and other analytics and tracking tools used by website operators violates the GDPR. On February 10, 2022, the French data protection authority issued a press release stating that the French data protection authority had issued a similar decision. Other data protection authorities in the EU increasingly are focused on the use of online tracking tools and have indicated that they plan to issue similar rulings. Any of these changes or other developments with respect to EU data protection law could disrupt our business and otherwise adversely impact our business, financial condition and operating results.

Further, the UK officially left the EU in 2020 (often referred to as Brexit). The full effect of Brexit remains uncertain, but Brexit creates economic and legal uncertainty in the region and could adversely affect the tax, currency, operational, legal and regulatory regimes to which our business is subject, including with respect to privacy and data protection. Brexit may adversely affect our revenues and subject us to new regulatory costs and challenges, in addition to other adverse effects that we are unable effectively to anticipate. The UK has implemented a Data Protection Act, and legislation referred to as the UK GDPR, that substantially implement the GDPR, with penalties for noncompliance of up to the greater of £17.5 million or four percent of worldwide revenues. On June 28, 2021, the European Commission adopted an adequacy decision with respect to the UK, which allows cross-border data transfers from the EEA to the UK for a four-year period, subject to renewal and the potential for earlier modification or termination. Nevertheless, substantial uncertainty remains regarding future regulation of data protection in the UK, and we may face challenges and significant costs and expenses in addressing applicable requirements and making necessary changes to our policies and practices.

Legislative changes in the United States, at both the federal and state level, could impose new obligations in areas such as moderation of content posted on our platform by third parties, including with respect to requests for removal based on claims of copyright. Further, there are various Executive and Congressional efforts to restrict the scope of the protections from legal liability for content moderation decisions and third-party content posted on online platforms that are currently available to online platforms under Section 230 of the Communications Decency Act, and our current protections from liability for content moderation decisions and third-party content posted on our platform in the United States could decrease or change, potentially resulting in increased liability for content moderation decisions and third-party content posted on our platform and higher litigation costs. Additionally, recent amendments to U.S. patent laws may affect the ability of companies, including us, to protect their innovations and defend against claims of patent infringement. Import and export control regulations in the United States and other countries are also subject to change and uncertainty, including as a result of geopolitical developments and relations between the United States and China, the United States and Russia, and the ongoing war in Ukraine.

In April 2019, the EU passed the Directive on Copyright in the Digital Single Market (the EU Copyright Directive), which expands the liability of online platforms for third-party content posted on the platform. Each EU member state had two years to implement it, with a deadline of June 7, 2021, though implementation has been delayed in several EU member states. The EU Copyright Directive may increase our costs of operations, our liability for third-party content posted on our platform, and our litigation costs.

Additionally, we have relationships with third parties that perform a variety of functions such as payments processing, tokenization, vaulting, currency conversion, fraud prevention and cybersecurity audits. The laws and regulations related to online payments and other activities of these third parties, including those relating to the processing of data, are complex, subject to change, and vary across different jurisdictions in the United States and globally. As a result, we may be required to spend significant time, effort and expense to comply with applicable laws and regulations. Any failure or claim of our failure to comply, or any failure or claim of failure by the above-mentioned third parties to comply, could increase our costs or could result in liabilities. Additionally, because we accept payment via credit cards, we are subject to global payments industry operating rules and certification requirements governed by the PCI Security Standards Council, including the Payment Card Industry Data Security Standard. Any failure by us to comply with these operating rules and certification requirements also may result in costs and liabilities and may result in us losing our ability to accept certain payment cards. We recently announced new subscription and paid features on Twitter. Depending on how these products and features evolve, we may also be subject to other laws and regulations related to online payments, money transmission, prepaid access, electronic fund transfers or other financial laws or regulations, and we may need to register as a money services business with the U.S. Treasury Department and obtain state money transmitter licenses in the United States and an Electronic Money (E-money) license in the EEA to permit us to conduct certain activities. These licenses and other legal requirements will generally require us to demonstrate compliance with many domestic and foreign laws in these areas, including anti-money laundering, counter-terrorist financing, government sanctions, cybersecurity, privacy, and consumer protection laws, and failure to do so may limit our ability to offer these products and features as they evolve.

The U.S. and foreign laws and regulations described above, as well as any associated inquiries or investigations or any other regulatory actions, may be onerous and costly to comply with and may be inconsistent from jurisdiction to jurisdiction, further increasing the cost of compliance and doing business. Any such costs may delay or impede the development of new products and services, result in negative publicity, increase our operating costs, require significant management time and attention, and subject us to remedies that may result in a loss of mDAU or advertisers and otherwise harm our business, including fines or demands or orders that we modify or cease existing business practices.

We currently allow use of our platform without the collection of extensive personal information. We may experience additional pressure to expand our collection of personal information in order to comply with new and additional legal or regulatory demands or we may independently decide to do so. If we obtain such additional personal information, we may be subject to additional legal or regulatory obligations.

Regulatory investigations and settlements could cause us to incur additional expenses or change our business practices in a manner material and adverse to our business.

From time to time we notify the Irish Data Protection Commission and other regulators of certain personal data breaches and privacy, cybersecurity or data protection issues, and are subject to inquiries and investigations regarding various aspects of our regulatory compliance. We are currently the subject of inquiries by the Irish Data Protection Commission with respect to our compliance with the GDPR. In the past, we have been subject to regulatory investigations and orders, and we expect to continue to be subject to regulatory scrutiny as our business grows and awareness of our brand increases.

In March 2011, to resolve an investigation into various incidents, we entered into a consent order with the FTC that, among other things, required us to establish an information security program designed to protect non-public consumer information and also requires that we obtain biennial independent security assessments. The obligations under the consent order remain in effect until the later of March 2, 2031, or the date 20 years after the date, if any, on which the U.S. government or the FTC files a complaint in federal court alleging any violation of the order. We expect to continue to be the subject of regulatory inquiries, investigations and audits in the future by the FTC and other regulators around the world. Violation of existing or future regulatory orders, settlements or consent decrees could subject us to substantial fines, penalties and costs that would adversely impact our financial condition and operating results. For example, on July 28, 2020, we received a draft complaint from the FTC alleging violations of the 2011 consent order with the FTC and the FTC Act. The allegations relate to our use of phone number and/or email address data provided for safety and security purposes for targeted advertising during periods between 2013 and 2019. In March 2022, we and the FTC agreed in principle upon a penalty of \$150.0 million and we deposited this amount into escrow from cash on hand.

It is possible that a regulatory inquiry, investigation or audit could cause us to incur substantial fines and costs, result in reputational harm, prevent us from offering certain products, services, features or functionalities, require us to change our policies or practices, divert management and other resources from our business, or otherwise materially and adversely impact our business, financial condition and operating results.

We may face lawsuits or incur liability as a result of content published or made available through our products and services.

We have faced and will continue to face claims relating to content that is published or made available through our products and services or third-party products or services. In particular, the nature of our business exposes us to claims related to defamation, intellectual property rights, rights of publicity and privacy, illegal content, misinformation, content regulation and personal injury torts. The laws relating to the liability of providers of online products or services for activities of the people who use them remains somewhat unsettled, both within the United States and internationally. For example, there are various Executive and Congressional efforts to restrict the scope of the protections from legal liability for content moderation decisions and third-party content posted on online platforms that are currently available to online platforms under Section 230 of the Communications Decency Act, and our current protections from liability for content moderation decisions and third-party content posted on our platform in the United States could decrease or change, potentially resulting in increased liability for content moderation decisions and third-party content posted on our platform and higher litigation costs. This risk may be enhanced in certain jurisdictions outside the United States where we may be less protected under local laws than we are in the United States. For example, we are subject to legislation in Germany that may impose significant fines for failure to comply with certain content removal and disclosure obligations. Other countries, including Brazil, Turkey, Singapore, India, Australia, and the United Kingdom, have implemented or are considering similar legislation imposing penalties for failure to remove certain types of content. In addition, the public nature of communications on our platform exposes us to risks arising from the creation of impersonation accounts intended to be attributed to people on Twitter or our advertisers. We could incur significant costs investigating and defending these claims. If we incur material costs or liability as a result of these occurrences, our business, financial condition and operating results would be adversely impacted.

If we fail to maintain an effective system of disclosure controls and internal control over financial reporting, our ability to produce timely and accurate financial statements or comply with applicable regulations could be impaired.

As a public company, we are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the Exchange Act), the Sarbanes-Oxley Act of 2002, as amended (the Sarbanes-Oxley Act), and the listing standards of the New York Stock Exchange. The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and 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.

Any failure to develop or maintain effective controls, or any difficulties encountered in their implementation or improvement, could cause us to be subject to one or more investigations or enforcement actions by state or federal regulatory agencies, stockholder lawsuits or other adverse actions requiring us to incur defense costs, pay fines, settlements or judgments. Any such failures could also cause investors to lose confidence in our reported financial and other information, which would likely have a negative effect on the trading price of our common stock. In addition, if we are unable to continue to meet these requirements, we may not be able to remain listed on the New York Stock Exchange.

Our inability to obtain insurance at acceptable rates or our failure to adequately reserve for self-insured exposures may negatively impact our business, financial condition and operating results.

We maintain insurance coverage, but these policies do not cover all of our potential losses, costs, or liabilities. Our ability to purchase and maintain insurance policies for various aspects of our business may be affected by conditions in the insurance market or other factors over which we have no control. Costs and premiums for insurance have increased over time, and insurance coverage for all types of risk is becoming more restrictive, and, in many cases, subject to higher deductibles or retentions. It has and may continue to become more difficult to maintain insurance coverage at historic levels, and at reasonable costs. Accordingly, we may determine that we cannot obtain insurance at acceptable rates, or at all. In some cases, we have chosen, and may in the future choose, to forego or limit our purchase of insurance for certain business risks, electing instead to self-insure for all or a portion of potential liabilities. We record reserves for potential liability based on historical experience. However, if a significant loss, judgment, claim or other event is not covered by insurance or exceeds our self-insurance reserves, the loss and related expenses could harm our business, financial condition and operating results.

Financial and Transactional Risks

Acquisitions, divestitures and investments could disrupt our business and harm our financial condition and operating results.

Our success will depend, in part, on our ability to expand our products, product features and services, and grow our business in response to changing technologies, demands of people on Twitter and our advertisers and competitive pressures. In some circumstances, we may determine to do so through the acquisition of complementary businesses and technologies rather than through internal development. The identification of suitable acquisition candidates can be difficult, time-consuming and costly, and we may not be able to successfully complete identified acquisitions. The risks we face in connection with acquisitions include:

- diversion of management time and focus from operating our business to addressing acquisition integration challenges;
- retention of key employees from the acquired company;
- cultural challenges associated with integrating employees from the acquired company into our organization;
- integration of the acquired company's accounting, management information, human resources and other administrative systems and processes;
- the need to implement or improve controls, procedures, and policies at a business that prior to the acquisition may have lacked effective controls, procedures and policies;
- liability for activities of the acquired company before the acquisition, including intellectual property infringement claims, violations of laws, commercial disputes, tax liabilities and other known and unknown liabilities;
- unanticipated write-offs or charges; and
- litigation or other claims in connection with the acquired company, including claims from terminated employees, former stockholders or other third parties.

Our failure to address these risks or other problems encountered in connection with our past or future acquisitions and investments could cause us to fail to realize the anticipated benefits of these acquisitions or investments, cause us to incur unanticipated liabilities, and harm our business generally. Future acquisitions could also result in dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities, amortization expenses, incremental operating expenses or the impairment of assets, any of which could adversely impact our financial condition and operating results.

We also make investments in privately-held companies in furtherance of our strategic objectives. Many of the instruments in which we invest are non-marketable at the time of our initial investment. We may not realize a return and may recognize a loss on such investments.

In certain cases, we have also divested or stopped investing in certain businesses or products, including products that we acquired, and we may continue to do so. For example, in January 2022, we completed the sale of our MoPub business. The sale of a business or product line may require us to restructure operations and/or terminate employees, and could expose us to unanticipated ongoing obligations and liabilities, including as a result of our indemnification obligations. Additionally, such transactions could disrupt our customer, supplier and/or employee relationships and divert management and our employees' time and attention. During the pendency of a divestiture, we may be subject to risks related to a decline in the business, loss of employees, customers, or suppliers, and that the transaction may not close, which could have a material and adverse effect on the business to be divested and on us. If a divestiture is not completed for any reason, we may not be able to find a buyer on the same terms. If we decide to sell a business or product line, we may experience difficulty separating out portions of or entire businesses, incur additional expenses and potential loss of revenue or experience a negative impact on margins. Ultimately, we may experience harm to our financial results, including loss of revenue, and we may not realize the expected benefits and cost savings of these actions and our operating results may be adversely impacted.

Our debt obligations could adversely affect our financial condition.

In 2018, we issued \$1.15 billion in aggregate principal amount of 0.25% convertible senior notes due 2024 (the 2024 Notes). In 2019, we issued \$700.0 million in aggregate principal amount of 3.875% senior notes due 2027 (the 2027 Notes). In 2020, we issued \$1.0 billion in aggregate principal amount of 0.375% convertible senior notes due 2025 (the 2025 Notes). In March 2021, we issued \$1.44 billion in aggregate principal amount of 0% convertible senior notes due 2026 (the 2026 Notes). In February 2022, we issued \$1.0 billion in aggregate principal amount of 5.000% senior notes due 2030 (the 2030 Notes). We refer to the 2024 Notes, the 2025 Notes, and the 2026 Notes as the Convertible Notes. We refer to the 2027 Notes and the 2030 Notes as the Senior Notes. We refer to the Convertible Notes and the Senior Notes as the Notes. As of March 31, 2022, we had \$5.29 billion in aggregate principal amount of outstanding Notes. As of March 31, 2022, we also had an undrawn unsecured revolving credit facility providing for loans in the aggregate principal amount of \$500.0 million.

Our debt obligations could adversely impact us. For example, these obligations could:

- require us to use a substantial portion of our cash flow from operations to pay principal and interest on debt, including the Notes, or to repurchase our Notes when required upon the occurrence of certain change of control events or otherwise pursuant to the terms thereof, including in connection with the merger, which will reduce the amount of cash flow available to fund working capital, capital expenditures, acquisitions, and other business activities;
- require us to use cash and/or issue shares of our common stock to settle any conversion obligations of the Convertible Notes;
- result in certain of our debt instruments, including the Notes, being accelerated or being deemed to be in default if certain terms of default are triggered, such as applicable cross payment default and/or cross-acceleration provisions;
- adversely impact our credit rating, which could increase future borrowing costs;
- limit our future ability to raise funds for capital expenditures, strategic acquisitions or business opportunities, and other general corporate requirements;
- restrict our ability to create or incur liens and enter into sale-leaseback financing transactions;
- increase our vulnerability to adverse economic and industry conditions;
- with respect to indebtedness other than the Notes, increase our exposure to interest rate risk from variable rate indebtedness;
- dilute our earnings per share as a result of the conversion provisions in the Convertible Notes; and
- place us at a competitive disadvantage compared to our less leveraged competitors.

Our ability to meet our payment obligations under our debt instruments depends on our ability to generate significant cash flows in the future. This, to some extent, is subject to market, economic, financial, competitive, legislative, and regulatory factors as well as other factors that are beyond our control. There can be no assurance that our business will generate cash flow from operations, or that additional capital will be available to us, in amounts sufficient to enable us to meet our debt payment obligations and to fund other liquidity needs. Additionally, events and circumstances may occur which would cause us to not be able to satisfy applicable draw-down conditions and utilize our revolving credit facility. If we are unable to generate sufficient cash flows to service our debt payment obligations, we may need to refinance or restructure our debt, sell assets, reduce or delay capital investments, or seek to raise additional capital. If we are unable to implement one or more of these alternatives on commercially reasonable terms or at all, we may be unable to meet our debt payment obligations, which would materially and adversely impact our business, financial condition and operating results.

We may have exposure to greater than anticipated tax liabilities, which could adversely impact our operating results.

Our income tax obligations are based in part on our corporate operating structure, including the manner in which we develop, value, manage, protect and use our intellectual property and the scope of our international operations. We are subject to review and audit by tax authorities in the United States (federal and state), Ireland, and other foreign jurisdictions and the laws in those jurisdictions are subject to interpretation. Tax authorities may disagree with and challenge some of the positions we have taken and any adverse outcome of such an audit could have a negative effect on our financial position and operating results. In addition, our future income taxes could be adversely affected by earnings being lower than anticipated in jurisdictions that have lower statutory tax rates and higher than anticipated in jurisdictions that have higher statutory tax rates, by changes in the valuation of our deferred tax assets and liabilities, or by changes in tax laws, regulations or accounting principles, as well as certain discrete items.

In addition, the Organization for Economic Cooperation and Development (OECD) has published proposals covering a number of issues, including country-by-country reporting, permanent establishment rules, transfer pricing rules, tax treaties and taxation of the digital economy. A significant majority of countries in the OECD's Inclusive Framework have agreed in principle to a proposed solution to address the tax challenges arising from the digitalization of the economy. Future tax reform resulting from these developments may result in changes to long-standing tax principles, which could adversely affect our effective tax rate or result in higher cash tax liabilities. Nearly 140 countries have signed up or agreed to sign up on a plan that would be implemented in 2023, setting a 15% minimum tax rate on corporations and a plan to reallocate part of the profits from the largest and most profitable businesses to countries where they make sales. The OECD's proposed solution envisages new international tax rules and the removal of all Digital Services Taxes (DST). The European Union has also published its proposal for a directive aimed at implementing the OECD rules on a 15% minimum effective tax rate in the European Union Member States. Notwithstanding this, some countries, in the European Union and beyond, continue to operate a DST regime to capture tax revenue on digital services more immediately. Overall, future tax laws may increase our tax obligations in those countries or change the manner in which we operate our business.

We may not realize the anticipated long-term stockholder value of our share repurchase programs and any failure to repurchase our common stock after we have announced our intention to do so may negatively impact our stock price.

In February 2022, we announced that our board of directors authorized the repurchase of up to \$4.0 billion of our common stock, replacing our previously authorized \$2.0 billion program from 2020. As part of the new program, we entered into a \$2.0 billion accelerated share repurchase on February 10, 2022.

Under this or any other future share repurchase programs, we may make share repurchases through a variety of methods, including open share market purchases, block transactions or privately negotiated transactions, in accordance with applicable federal securities laws. Future share repurchase programs may have no time limit, may not obligate us to repurchase any specific number of shares and may be suspended at any time at our discretion and without prior notice. The timing and amount of any repurchases, if any, will be subject to liquidity, stock price, market and economic conditions, compliance with applicable legal requirements such as Delaware surplus and solvency tests and other relevant factors. Any failure to repurchase stock after we have announced our intention to do so may negatively impact our reputation and investor confidence in us and may negatively impact our stock price.

The existence of these share repurchase programs could cause our stock price to be higher than it otherwise would be and could potentially reduce the market liquidity for our stock. Although these programs are intended to enhance long-term stockholder value, there is no assurance they will do so because the market price of our common stock may decline below the levels at which we repurchased shares and short-term stock price fluctuations could reduce the effectiveness of the programs.

Repurchasing our common stock will reduce the amount of cash we have available to fund working capital, capital expenditures, strategic acquisitions or business opportunities, and other general corporate requirements, and we may fail to realize the anticipated long-term stockholder value of these share repurchase programs.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

As of December 31, 2021, we had U.S. federal and state net operating loss carryforwards of \$2.39 billion and \$1.36 billion, respectively, and we had U.S. federal and state research and development credit carryforwards of \$494.8 million and \$349.4 million, respectively. A portion of the U.S. net operating loss carryforwards and tax credit carryforwards could be subject to ownership change limitations governed by Section 382 or 383 of the Internal Revenue Code and similar provisions of state law, or other limitations imposed under state law. Any such limitations on the ability to use our net operating loss carryforwards and other tax assets could adversely impact our business, financial condition and operating results.

If our goodwill or intangible assets become impaired, we may be required to record a significant charge to earnings.

Under GAAP, we review our intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Goodwill is required to be tested for impairment at least annually. An adverse change in market conditions or financial results, particularly if such change has the effect of changing one of our critical assumptions or estimates, could result in a change to the estimation of fair value that could result in an impairment charge to our goodwill or intangible assets. Any such material charges may have a material and adverse impact on our operating results.

Governance Risks and Risks related to Ownership of our Capital Stock

Anti-takeover provisions contained in our amended and restated certificate of incorporation and amended and restated bylaws, as well as provisions of Delaware law, could impair a takeover attempt.

Our amended and restated certificate of incorporation, amended and restated bylaws and Delaware law contain provisions which could have the effect of rendering more difficult, delaying, or preventing an acquisition deemed undesirable by our board of directors. Among other things, our amended and restated certificate of incorporation and amended and restated bylaws include provisions:

- providing for a classified board of directors whose members serve staggered three-year terms;
- authorizing “blank check” preferred stock, which could be issued by our board of directors without stockholder approval and may contain voting, liquidation, dividend and other rights superior to our common stock;
- limiting the liability of, and providing indemnification to, our directors and officers;
- limiting the ability of our stockholders to call and bring business before special meetings;
- requiring advance notice of stockholder proposals for business to be conducted at meetings of our stockholders and for nominations of candidates for election to our board of directors; and
- controlling the procedures for the conduct and scheduling of stockholder meetings.

These provisions, alone or together, could delay or prevent hostile takeovers and changes in control or changes in our management, and amendment of our amended and restated certificate of incorporation to change or modify certain of these provisions requires approval of a super-majority of our stockholders, which we may not be able to obtain.

As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the Delaware General Corporation law, which prevents certain stockholders holding more than 15% of our outstanding common stock from engaging in certain business combinations without approval of the holders of at least two-thirds of our outstanding common stock not held by such 15% or greater stockholder.

In addition, in April 2022, we implemented a stockholder rights plan (the Rights Agreement), also called a “poison pill,” that may have the effect of discouraging or preventing a change of control by, among other things, making it uneconomical for a third party to acquire us without the consent of our board of directors. We amended the stockholder rights plan in order to prevent the approval, execution, delivery or performance of the Merger Agreement, or the consummation prior to the termination of the Merger Agreement of the merger or any of the other transactions contemplated by the Merger Agreement in accordance with its terms, from, among other things, (i) resulting in a Distribution Date (as defined by the Rights Agreement) or permitting the Rights (as defined by the Rights Agreement) to be exercised or exchanged, and (ii) causing Parent, Acquisition Sub or their respective affiliates to be deemed an Acquiring Person (as defined by the Rights Agreement) for any purpose under the Rights Agreement.

Any provision of our amended and restated certificate of incorporation, amended and restated bylaws or Delaware law that has the effect of delaying, preventing or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock.

The market price of our common stock has been and will likely continue to be volatile, and you could lose all or part of your investment.

The market price of our common stock has been and may continue to be highly volatile in response to various factors, some of which are beyond our control. In addition to the factors discussed in this “Risk Factors” section and elsewhere in this report, factors that could cause fluctuations in the market price of our common stock include the following:

- perceptions regarding the merger, the pendency of the merger, and the failure to complete the merger may adversely affect our business, financial condition, operating results and stock price;
- price and volume fluctuations in the overall stock market from time to time, including fluctuations due to general economic uncertainty or negative market sentiment, including related to the COVID-19 pandemic and the war in Ukraine;
- volatility in the market 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;
- sales of shares of our common stock by us or our stockholders;
- rumors and market speculation involving us or other companies in our industry;

- changes in the recommendations of securities analysts regarding our common stock, changes in financial estimates by securities analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- the financial or non-financial metric projections we may provide to the public, any changes in those projections or our failure to meet those projections;
- announcements by us or our competitors of new products or services;
- the public's reaction to our press releases, other public announcements and filings with the SEC;
- actual or anticipated changes in our operating results or fluctuations in our operating results;
- actual or anticipated developments in our business, our competitors' businesses or the competitive landscape generally;
- our issuance of shares of our common stock, whether in connection with an acquisition or upon conversion of some or all of our outstanding Convertible Notes;
- litigation or regulatory action involving us, our industry or both, or investigations by regulators into our operations or those of our competitors;
- developments or disputes concerning our intellectual property or other proprietary rights;
- announced or completed acquisitions of businesses or technologies by us or our competitors;
- new laws or regulations or new interpretations of existing laws or regulations applicable to our business and our responses thereto;
- changes in accounting standards, policies, guidelines, interpretations or principles;
- any significant change in our management; and
- general economic conditions and slow or negative growth of our markets.

In addition, 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. Any securities litigation can result in substantial costs and a diversion of our management's attention and resources. We are currently subject to securities litigation and in September 2021, we entered into a binding agreement to settle a shareholder class action lawsuit. The proposed settlement resolves all claims asserted against us and the other named defendants in the shareholder class action lawsuit without any liability or wrongdoing attributed to them personally or to us. Under the terms of the proposed settlement, we paid \$809.5 million from cash on hand in the fourth quarter of 2021. The settlement agreement is subject to final approval by the U.S. District Court for the Northern District of California. We may experience more such litigation following any future periods of volatility.

The note hedge and warrant transactions may affect the value of our common stock.

Concurrent with the issuance of the 2024 Notes and 2026 Notes we entered into note hedge transactions with certain financial institutions, which we refer to as the option counterparties. The note hedge transactions are generally expected to reduce the potential dilution upon any conversion of the 2024 Notes and 2026 Notes and/or offset any cash payments we are required to make in excess of the principal amount converted with respect to the 2024 Notes or 2026 Notes as the case may be. We also entered into warrant transactions with the option counterparties. However, the warrant transactions could separately have a dilutive effect to the extent that the market price of our common stock exceeds the applicable strike price of the warrants.

The option counterparties or their respective affiliates may modify their initial hedge positions by entering into or unwinding various derivatives contracts with respect to our common stock and/or purchasing or selling our common stock or other securities of ours in secondary market transactions prior to the maturity of the 2024 Notes and 2026 Notes, as applicable (and are likely to do so during any applicable observation period related to a conversion of the 2024 Notes and 2026 Notes as applicable, or following any repurchase of the 2024 Notes and 2026 Notes, as applicable, by us on any fundamental change repurchase date or otherwise). This activity could cause or avoid an increase or a decrease in the market price of our common stock.

Item 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

The following table summarizes the share repurchase activity for the three months ended March 31, 2022:

Period	Total Number of Shares Purchased (in thousands) ⁽¹⁾	Average Price Paid Per Share ⁽²⁾	Total Number of Shares Purchased as Part of Publicly Announced Programs (in thousands) ⁽¹⁾	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Program (in millions) ⁽¹⁾
January 1 - 31	1,402	\$ 37.80	1,402	\$ 766
February 1 - 28	38,266	\$ 37.07	38,266	\$ 2,000
March 1 - 31	—	\$ —	—	\$ 2,000
Total	<u>39,668</u>		<u>39,668</u>	

⁽¹⁾ In February 2022, our board of directors authorized a new \$4.0 billion share repurchase program (referred to as the 2022 Repurchase Program), which became effective immediately and replaced the \$2.0 billion program that our board of directors authorized in March 2020 (referred to as the 2020 Repurchase Program). Prior to the adoption of the 2022 Repurchase Program, pursuant to the 2020 Repurchase Program repurchases were made, and now, pursuant to the 2022 Repurchase Program, repurchases may be made from time to time through open market purchases or through privately negotiated transactions, under trading plans complying with Rules 10b5-1 and 10b-18 under the Exchange Act, subject to market conditions, applicable legal requirements and other relevant factors. In connection with the 2022 Repurchase Program, we entered into accelerated share repurchase agreements (the ASR Agreements) to repurchase \$2.0 billion of our common stock as part of our share repurchase program. The amount purchased in February 2022 includes an initial delivery of approximately 37.8 million shares of the Company's common stock pursuant to a \$2.0 billion prepayment under the ASR Agreements. \$600.0 million of the prepayment was evaluated as an unsettled forward contract, classified within stockholders' equity. Under the terms of the ASR Agreements, the remaining shares, if any, are expected to be delivered in the third quarter of 2022. The number of shares that the Company will ultimately repurchase will be determined based on the volume-weighted average price of the Company's common stock over the term of the ASR Agreements, less an agreed upon discount. The amount purchased in February 2022 also includes approximately 510,000 shares of the Company's common stock purchased pursuant to the 2020 Repurchase Program. The approximate dollar value of shares that may yet be purchased under the program for the February and March periods is net of the full prepayment amount under the ASR Agreements. The 2022 Repurchase Program does not obligate us to acquire any particular amount of our common stock and may be suspended at any time at our discretion. The 2022 Repurchase Program does not have an expiration date. Please refer to Note 13 of the Notes to Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q for additional information.

⁽²⁾ Average price paid per share includes costs associated with the repurchases.

Item 6. EXHIBITS

The documents listed in the Exhibit Index of this Quarterly Report on Form 10-Q are incorporated by reference or are filed with this Quarterly Report on Form 10-Q, in each case as indicated therein (numbered in accordance with Item 601 of Regulation S-K).

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Form	File No.	Incorporated by Reference Exhibit	Filing Date
2.1	Agreement and Plan of Merger, dated April 25, 2022, by and among Twitter, Inc., X Holdings I, Inc., X Holdings II, Inc., and, solely for the purposes of certain sections, Elon R. Musk.*	8-K	001-36164	2.1	April 26, 2022
3.1	Amended and Restated Bylaws of Twitter, Inc.	10-K	001-36164	3.2	February 16, 2022
3.2	Certificate of Designation of Rights, Preferences and Privileges of Series A Participating Preferred Stock.	8-K	001-36164	3.1	April 18, 2022
4.1	Indenture, dated as of February 25, 2022, by and between Twitter, Inc. and U.S. Bank Trust Company, National Association, as Trustee (5.000% Senior Notes due 2030).	8-K	001-36164	4.1	February 25, 2022
4.2	Form of 5.000% Senior Notes due 2030 (included in Exhibit 4.1).	8-K	001-36164	4.2	February 25, 2022
4.3	Preferred Stock Rights Agreement, dated as of April 15, 2022, by and between Twitter, Inc. and Computershare Trust Company, N.A., as rights agent.	8-K	001-36164	4.1	April 18, 2022
4.4	Amendment No. 1 to Preferred Stock Rights Agreement, dated as of April 25, 2022, by and between Twitter, Inc. and Computershare Trust Company, N.A., as rights agent.	8-K	001-36164	4.2	April 26, 2022
10.1	Purchase Agreement, dated as of February 23, 2022, between Twitter, Inc. and J.P. Morgan Securities LLC, as representative of the initial purchasers listed in Schedule I thereto.	8-K	001-36164	10.1	February 25, 2022
10.2	Form of Accelerated Share Repurchase Agreement.	8-K	001-36164	1.01	February 11, 2022
10.3	Amendment No. 2, dated as of February 9, 2022, to the Credit Agreement, dated as of August 7, 2018, among Twitter, Inc., the lenders from time to time thereto, and JPMorgan Chase Bank, N.A., as administrative agent.	8-K	001-36164	1.02	February 11, 2022
10.4	Letter Agreement, dated as of April 4, 2022, among Twitter, Inc. and Elon Musk.	8-K	001-36164	10.1	April 5, 2022
31.1	Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
31.2	Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
32.1†	Certifications of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
101	The following financial statements from the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, formatted in Inline XBRL: (i) Consolidated Balance Sheets, (ii) Consolidated Statements of Income, (iii) Consolidated Statements of Comprehensive Income, (iv) Consolidated Statements of Stockholders' Equity, (v) Consolidated Statements of Cash Flows, and (vi) Notes to Consolidated Financial Statements.				
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)				

† The certifications attached as Exhibit 32.1 that accompany this Quarterly Report on Form 10-Q, are deemed furnished and not filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of Twitter, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Quarterly Report on Form 10-Q, irrespective of any general incorporation language contained in such filing

* Schedules and exhibits omitted pursuant to Item 601(b)(2) of Regulation S-K. Twitter will furnish supplementally a copy of any omitted schedule or exhibit to the SEC upon request. Twitter may request confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended, for any schedules or exhibits so furnished.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Quarterly Report on Form 10-Q to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: May 2, 2022

TWITTER, INC.

By: /s/ Parag Agrawal

Parag Agrawal
Chief Executive Officer
(Principal Executive Officer)

Date: May 2, 2022

By: /s/ Ned Segal

Ned Segal
Chief Financial Officer
(Principal Financial Officer)

**CERTIFICATION OF PERIODIC REPORT UNDER SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, Parag Agrawal, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Twitter, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and;
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 2, 2022

/s/ Parag Agrawal

Parag Agrawal
Chief Executive Officer
(Principal Executive Officer)

**CERTIFICATION OF PERIODIC REPORT UNDER SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, Ned Segal, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Twitter, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and;
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 2, 2022

/s/ Ned Segal

Ned Segal
Chief Financial Officer
(Principal Financial Officer)

**CERTIFICATIONS OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Parag Agrawal, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report on Form 10-Q of Twitter, Inc. for the fiscal quarter ended March 31, 2022 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Twitter, Inc.

Date: May 2, 2022

By: /s/ Parag Agrawal
Name: Parag Agrawal
Title: Chief Executive Officer

I, Ned Segal, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report on Form 10-Q of Twitter, Inc. for the fiscal quarter ended March 31, 2022 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Twitter, Inc.

Date: May 2, 2022

By: /s/ Ned Segal
Name: Ned Segal
Title: Chief Financial Officer