UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 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 June 30, 2020

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: 001-38211

ROKU, INC.
(Exact name of registrant as specified in its charter)

Delaware	**26-2087865**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

1155 Coleman Avenue
San Jose, California 95110
(Address of principal executive offices including zip code)

Registrant's telephone number, including area code: (408) 556-9040

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

Title of Each Class:	Trading Symbol(s):	Name of Exchange on Which Registered:
Class A Common Stock, $0.0001 par value	**"ROKU"**	**The Nasdaq Global Select Market**

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, 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	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☐		

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 ☒

As of July 31, 2020, the registrant had 105,891,320 of Class A common stock, $0.0001 par value per share, and 18,816,622 shares of Class B common stock, $0.0001 par value per share, outstanding.

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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 ("the Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended ("the Exchange Act") about us and our industry that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this report, including statements regarding our future results of operations and financial condition, business strategy and plans and objectives of management for future operations, are forward-looking statements. For example, statements in this Form 10-Q regarding the potential future impact of the COVID-19 pandemic on the Company's business and results of operations are forward-looking statements. In some cases, forward-looking statements may be identified by words such as "anticipate," "believe," "continue," "could," "design," "estimate," "expect," "intend," "may," "plan," "potentially," "predict," "project," "should," "will" or the negative of these terms or other similar expressions.

Forward-looking statements are based on our management's beliefs and assumptions and on information currently available. These forward-looking statements are subject to a number of known and unknown risks, uncertainties and assumptions, including risks described in the section titled "Risk Factors" and elsewhere in this Quarterly Report on Form 10-Q, regarding, among other things:

- *our financial performance, including our revenue, cost of revenue, operating expenses and our ability to attain and sustain profitability;*
- *the impact of the COVID-19 pandemic on our business, operations, and the markets and communities in which we and our advertisers, partners, manufacturers, suppliers and users operate;*
- *our ability to attract and retain users and increase streaming hours;*
- *our ability to attract and retain advertisers;*
- *our ability to attract and retain TV brands and service operators to license and deploy our technology;*
- *our ability to acquire rights to distribute popular content on our platform on favorable terms, or at all, including the renewals of our existing agreements with content publishers;*
- *changes in consumer viewing habits and the growth of TV streaming;*
- *the growth of our relevant markets, including the growth in advertising spend on TV streaming platforms, and our ability to successfully grow our business in those markets;*
- *our ability to adapt to changing market conditions and technological developments, including developing integrations with our platform partners;*
- *our ability to develop and launch new streaming products and provide ancillary services and support;*
- *our ability to integrate the business and operations of dataxu, Inc., a demand-side platform ("DSP") company that we acquired in 2019;*
- *our ability to compete effectively with existing competitors and new market entrants;*
- *our ability to successfully manage domestic and international expansion;*
- *our ability to attract and retain qualified employees and key personnel;*
- *our abilities to address potential and actual security breaches and system failures involving our products, systems and operations;*
- *our ability to maintain, protect and enhance our intellectual property; and*
- *our ability to comply with laws and regulations that currently apply or may become applicable to our business both in the United States and internationally, including compliance with the EU General Data Protection Regulation and the California Consumer Privacy Act.*

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.

Other sections of this Quarterly Report on Form 10-Q may include additional factors that could harm our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time, and it is not possible for our management to predict all risk factors nor can we assess the impact of all factors on our *business or the extent to which any factor, or combination of factors, may cause actual results to differ from those contained in, or implied by, any forward-looking statements.*

You should not rely upon forward-looking statements as predictions of future events. We cannot assure you that the events and circumstances reflected in the forward-looking statements will be achieved or occur. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this report or to conform these statements to actual results or to changes in our expectations. You should read this Quarterly Report on Form 10-Q and the documents that we reference in this Quarterly Report on Form 10-Q and have filed as exhibits to this report with the understanding that our actual future results, levels of activity, performance and achievements may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

Investors and others should note that we may announce material business and financial information to our investors using our investor relations website (ir.roku.com/investor-relations), our filings with the Securities and Exchange Commission, webcasts, press releases, and conference calls. We use these mediums, including our website, to communicate with investors and the general public about our company, our products, and other issues. It is possible that the information that we make available may be deemed to be material information. We therefore encourage investors and others interested in our company to review the information that we make available on our website.

PART I—FINANCIAL INFORMATION

Item 1. Financial Statements.

ROKU, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands)
(unaudited)

	As of June 30, 2020	As of December 31, 2019
Assets		
Current Assets:		
Cash and cash equivalents	$ 885,825	$ 515,479
Restricted cash	1,539	1,854
Accounts receivable, net of allowances	306,719	332,673
Inventories	45,001	49,714
Prepaid expenses and other current assets	37,202	25,943
Total current assets	1,276,286	925,663
Property and equipment, net	152,747	103,262
Operating lease right-of-use assets	269,900	283,291
Intangible assets, net	69,292	76,668
Goodwill	73,058	74,116
Other non-current assets	5,139	7,234
Total Assets	$ 1,846,422	$ 1,470,234
Liabilities and Stockholders' Equity		
Current Liabilities:		
Accounts payable and accrued liabilities	$ 363,816	$ 313,574
Current portion of long-term debt	4,870	4,866
Deferred revenue, current	43,940	39,861
Total current liabilities	412,626	358,301
Long-term debt, non-current	92,305	94,742
Deferred revenue, non-current	17,243	15,370
Operating lease liability, non-current	306,750	301,694
Other long-term liabilities	1,945	1,701
Total Liabilities	830,869	771,808
Stockholders' Equity:		
Common stock, $0.0001 par value	12	12
Additional paid-in capital	1,428,171	1,012,218
Accumulated other comprehensive income	29	29
Accumulated deficit	(412,659)	(313,833)
Total stockholders' equity	1,015,553	698,426
Total Liabilities and Stockholders' Equity	$ 1,846,422	$ 1,470,234

See accompanying notes to condensed consolidated financial statements.

ROKU, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)
(unaudited)

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Net Revenue:				
Platform	$ 244,777	$ 167,682	$ 477,334	$ 301,835
Player	111,296	82,419	199,505	154,928
Total net revenue	356,073	250,101	676,839	456,763
Cost of Revenue:				
Platform	106,324	57,980	208,260	98,344
Player	102,913	77,912	180,642	143,319
Total cost of revenue	209,237	135,892	388,902	241,663
Gross Profit:				
Platform	138,453	109,702	269,074	203,491
Player	8,383	4,507	18,863	11,609
Total gross profit	146,836	114,209	287,937	215,100
Operating Expenses:				
Research and development	84,387	61,994	172,665	117,732
Sales and marketing	64,164	36,568	132,412	70,375
General and administrative	40,494	26,033	80,234	48,119
Total operating expenses	189,045	124,595	385,311	236,226
Loss from Operations	(42,209)	(10,386)	(97,374)	(21,126)
Other Income, Net:				
Interest expense	(1,034)	(571)	(1,897)	(669)
Other income, net	557	1,240	1,818	2,207
Total other income (expense), net	(477)	669	(79)	1,538
Loss Before Income Taxes	(42,686)	(9,717)	(97,453)	(19,588)
Income tax (benefit) expense	462	(384)	307	(523)
Net Loss	$ (43,148)	$ (9,333)	$ (97,760)	$ (19,065)
Net loss per share —basic and diluted	$ (0.35)	$ (0.08)	$ (0.81)	$ (0.17)
Weighted-average shares used in computing net loss per share —basic and diluted	122,614	114,572	121,397	112,734

See accompanying notes to condensed consolidated financial statements.

ROKU, INC.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in thousands)
(unaudited)

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Net Loss	$ (43,148)	$ (9,333)	$ (97,760)	$ (19,065)
Other comprehensive income, net of tax:				
Unrealized gain on short-term investments, net of tax	—	3	—	21
Comprehensive Net Loss	$ (43,148)	$ (9,330)	$ (97,760)	$ (19,044)

See accompanying notes to condensed consolidated financial statements.

ROKU, INC.

CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands)
(unaudited)

Three and Six Months Ended June 30, 2020

	Common Stock		Additional Paid-in	Treasury	Accumulated Other Comprehensive	Accumulated	Total Stockholders'
	Shares	Amount	Capital	Stock	Income / (Loss)	Deficit	Equity
Balance—March 31, 2020	120,657	$ 12	$ 1,046,054	$ (671)	$ 29	$ (369,511)	$ 675,913
Vesting of early exercised stock options	—	—	9	—	—	—	9
Issuance of common stock pursuant to equity incentive plans	923	—	3,134	—	—	—	3,134
Issuance of common stock in connection with at-the-market offering, net of issuance costs of $4.8 million	3,004	—	349,609	—	—	—	349,609
Stock-based compensation expense	—	—	30,036	—	—	—	30,036
Net loss	—	—	—	—	—	(43,148)	(43,148)
Balance—June 30, 2020	124,584	$ 12	$ 1,428,842	$ (671)	$ 29	$ (412,659)	$ 1,015,553
Balance—December 31, 2019	119,897	$ 12	$ 1,012,889	$ (671)	$ 29	$ (313,833)	$ 698,426
Vesting of early exercised stock options	—	—	26	—	—	—	26
Issuance of common stock pursuant to equity incentive plans	1,683	—	5,877	—	—	—	5,877
Issuance of common stock in connection with at-the-market offering, net of issuance costs of $4.8 million	3,004	—	349,609	—	—	—	349,609
Stock-based compensation expense	—	—	60,441	—	—	—	60,441
Adoption of ASU 2016-13	—	—	—	—	—	(1,066)	(1,066)
Net loss	—	—	—	—	—	(97,760)	(97,760)
Balance—June 30, 2020	124,584	$ 12	$ 1,428,842	$ (671)	$ 29	$ (412,659)	$ 1,015,553

Three and Six Months Ended June 30, 2019

	Common Stock		Additional Paid-in	Treasury	Accumulated Other Comprehensive	Accumulated	Total Stockholders'
	Shares	Amount	Capital	Stock	Income / (Loss)	Deficit	Equity
Balance—March 31, 2019	113,292	11	625,221	(671)	1	(263,628)	360,934
Vesting of early exercised stock options	—	—	15	—	—	—	15
Issuance of common stock pursuant to equity incentive plans	1,867	1	9,056	—	—	—	9,057
Issuance of common stock in connection with at-the-market offering, net of issuance costs of $1.6 million	1,000		81,335				81,335
Stock-based compensation expense	—	—	18,671	—	—	—	18,671
Unrealized gain on short-term investments	—	—	-	—	3	—	3
Net loss	—	—	—	—	—	(9,333)	(9,333)
Balance—June 30, 2019	116,159	$ 12	$ 734,298	$ (671)	$ 4	$ (272,961)	$ 460,682
Balance—December 31, 2018	109,770	$ 11	$ 499,224	$ (671)	$ (17)	$ (253,896)	244,651
Vesting of early exercised stock options	—	—	32	—	—	—	32
Share repurchases	(2)	—	—	—	—	—	—
Issuance of common stock pursuant to equity incentive plans	4,002	1	19,147	—	—	—	19,148
Issuance of common stock in connection with at-the-market offering, net of issuance costs of $3.6 million	2,389	—	179,360	—	—	—	179,360
Stock-based compensation expense	—	—	36,535	—	—	—	36,535
Unrealized gain on short-term investments	—	—	—	—	21	—	21
Net loss	—	—	—	—	—	(19,065)	(19,065)
Balance—June 30, 2019	116,159	$ 12	$ 734,298	$ (671)	$ 4	$ (272,961)	$ 460,682

See accompanying notes to condensed consolidated financial statements.

ROKU, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)
(unaudited)

	Six Months Ended	
	June 30, 2020	June 30, 2019
Cash flows from operating activities:		
Net loss	$ (97,760)	$ (19,065)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	17,248	5,677
Stock-based compensation expense	60,441	36,535
Amortization of operating lease right-of-use assets	15,947	7,738
Amortization of content license assets	12,182	760
Provision for doubtful accounts	3,516	53
Non-cash interest expense	—	412
Amortization of premiums on short-term investments	—	(265)
Other items, net	290	—
Changes in operating assets and liabilities:		
Accounts receivable	21,372	(21,012)
Inventories	4,713	(3,858)
Prepaid expenses and other current assets	(5,222)	(5,277)
Deferred cost of revenue	—	1,144
Other noncurrent assets	2,095	10
Accounts payable and accrued liabilities	27,183	31,395
Operating lease liabilities	12,695	(4,405)
Other long-term liabilities	(556)	(1,197)
Deferred revenue	5,952	(14,611)
Net cash provided by operating activities	80,096	14,034
Cash flows from investing activities:		
Purchase of property and equipment	(64,109)	(23,171)
Purchases of short-term investments	—	(12,365)
Sales/maturities of short-term investments	—	43,810
Proceeds from resolution of purchase acquisition contingencies	1,058	—
Net cash provided by (used in) investing activities	(63,051)	8,274
Cash flows from financing activities:		
Proceeds from borrowing, net of issuance costs	69,325	—
Repayments made on borrowings	(71,825)	—
Proceeds from equity issued under at-the-market program, net of issuance costs	349,609	179,360
Proceeds from equity issued under incentive plans	5,877	19,145
Net cash provided by financing activities	352,986	198,505
Net increase in cash, cash equivalents and restricted cash	370,031	220,813
Cash, cash equivalents and restricted cash—Beginning of period	517,333	155,564
Cash, cash equivalents and restricted cash—End of period	$ 887,364	$ 376,377
Cash, cash equivalents and restricted cash at end of period:		
Cash and cash equivalents	885,825	375,509
Restricted cash	1,539	868
Cash, cash equivalents and restricted cash—End of period	$ 887,364	$ 376,377
Supplemental disclosures of cash flow information:		
Cash paid for interest	$ 2,118	$ 960
Cash paid for income taxes	$ 482	$ 636
Supplemental disclosures of non-cash investing and financing activities:		
Unpaid portion of property and equipment purchases	$ 5,218	$ 6,984
Unpaid portion of purchased intangibles	$ 400	$ —
Unpaid portion of at-the-market offering costs	$ 150	$ 459

See accompanying notes to condensed consolidated financial statements.

1. THE COMPANY

Organization and Description of Business

Roku, Inc. (the “Company” or “Roku”), was formed in October 2002 as Roku LLC under the laws of the State of Delaware. On February 1, 2008, Roku LLC was converted into Roku, Inc., a Delaware corporation. The Company’s TV streaming platform allows users to easily discover and access a wide variety of movies and TV episodes, as well as live sports, music, news and more. The Company operates in two reportable segments and generates platform revenue from advertising, content distribution, audience development and billing services and player revenue from the sale of streaming players and audio products.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The condensed consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“U.S. GAAP”) and applicable rules and regulations of the Securities and Exchange Commission (the “SEC”) regarding interim financial reporting. Certain information and note disclosures normally included in the financial statements prepared in accordance with U.S. GAAP have been condensed or omitted pursuant to such rules and regulations. These condensed consolidated financial statements should be read in conjunction with the consolidated financial statements contained in the Company’s Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on March 2, 2020 (the “Annual Report”).

The condensed consolidated balance sheet as of December 31, 2019 has been derived from the audited consolidated financial statements as of that date but does not include all of the information and footnotes included in the Company’s Annual Report. The interim financial information is unaudited, but reflects all normal recurring adjustments that are, in the opinion of management, necessary to fairly present the information set forth herein. The results of operations for the three and six months ended June 30, 2020 are not necessarily indicative of the operating results to be expected for the full year or any future periods.

The Company adopted accounting standards in fiscal year 2020 and they are discussed in the “Recently Adopted Accounting Standards” paragraph. The Company adopted the accounting policy to account for credit losses for accounts receivable as part of the adoption and is included below. There are no other material changes to the significant accounting policies as compared to the significant accounting policies described in the Company’s Annual Report.

Credit losses for accounts receivable: The Company maintains an allowance for doubtful accounts to reserve for expected uncollectible accounts receivable. The Company assesses collectability by reviewing accounts receivable on a collective basis where similar characteristics exist and on an individual basis when the Company identifies specific customers with collectability issues. The Company regularly reviews the allowance by considering historical collectability based on past due status, credit quality, and makes judgments about the creditworthiness of customers based on ongoing credit evaluations. The Company also considers customer-specific information and current economic conditions that may affect a customer’s ability to pay.

For the six months ended June 30, 2020, the Company’s assessment of its accounts receivable considered the business and market disruptions caused by the novel coronavirus (“COVID-19”) and emerging credit and collectability trends. The continued volatility in market conditions and evolving shifts in credit trends can be difficult to predict causing volatility that may have a material impact on our allowance for credit losses. See Note 6, for the detailed activity in allowance for doubtful accounts for the three and six months ended June 30, 2020.

Reclassification of Prior Year Presentation

Certain amounts in the prior period financial statements have been reclassified to conform to the presentation of the current period financial statements. These reclassifications had no effect on the previously reported condensed consolidated statement of cash flows.

Use of Estimates

The preparation of the Company's consolidated financial statements in accordance with U.S. GAAP requires management to make certain estimates, judgements, and assumptions that affect the reported amounts of assets, liabilities, net revenue and expenses. Significant items subject to such estimates and assumptions include: for revenue recognition, determining the nature and timing of satisfaction of performance obligations, estimating variable consideration, determining the stand-alone selling prices of performance obligations, gross versus net revenue recognition, evaluation of customer versus vendor relationships, and other obligations such as sales return reserves and customer incentive programs; the fair value or impairment of goodwill and intangible assets; useful lives of tangible and intangible assets; allowances for doubtful accounts or credit losses; the valuation of inventory, the valuation of deferred income tax assets; the recognition and disclosure of contingent liabilities and stock-based compensation. The Company bases its estimates on historical experience and on various other assumptions that the Company believes to be reasonable under the circumstances. Actual results and outcomes may differ from management's estimates and assumptions due to risks and uncertainties, including uncertainty in the current economic environment due to the ongoing COVID-19 pandemic.

Principles of Consolidation

The condensed consolidated financial statements have been prepared in accordance with U.S. GAAP and include the accounts of the Company and its wholly-owned subsidiaries. All intercompany transactions and balances have been eliminated in consolidation.

Comprehensive Income (Loss)

The comprehensive loss is equal to the net loss for the three and six months ended June 30, 2020. Comprehensive income (loss) includes unrealized gains (loss) on the Company's short-term investments for the three and six months ended June 30, 2019.

Concentrations

Financial instruments, which potentially subject the Company to concentrations of credit risk, consist principally of cash, cash equivalents and accounts receivable. As of June 30, 2020, two financial institutions managed 52% and 25% of the Company's cash and cash equivalents balance, respectively. As of December 31, 2019, two financial institutions managed 65% and 34% of the Company's cash and cash equivalents balance, respectively.

The Company did not have any customers accounting for 10% or more of the Company's net accounts receivable as of June 30, 2020 and December 31, 2019.

Customers accounting for 10% or more of the Company's net revenue were as follows:

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Customer B	*	*	*	10%
Customer C	13%	14%	13%	13%
Customer H	10%	*	*	*

* less than 10%

Restricted Cash

Restricted cash is comprised of cash collateral for outstanding letters of credit related to operating leases of office facilities. As of June 30, 2020, the Company had restricted cash of $1.5 million. As of December 31, 2019, the Company had restricted cash of $1.9 million.

Content Licensing

The Company licenses content for viewing on The Roku Channel. The licensing arrangements can be for a fixed fee and/or advertising revenue share with specific windows of availability. The Company capitalizes the content fees and records a corresponding liability when the license period begins, the cost of the content is known, and the content is accepted and available for streaming. The Company amortizes licensed content assets into "Cost of Revenue, Platform" over the contractual window of availability. The liability is paid in accordance with the contractual terms of the arrangement.

As of June 30, 2020 and December 31, 2019, licensed content assets that met these requirements were $8.9 million and $1.7 million, respectively, and are recorded in "Prepaid expenses and other current assets." The increase in the content asset is due to a change in the mix of content licensed and the period over which such content is available for streaming. The corresponding liability is included in "Accrued liabilities" and is discussed in Note 11.

The Company recorded amortization expense of $6.1 million and $0.3 million for the three months ended June 30, 2020 and 2019, respectively, and $12.2 million and $0.8 million for the six months ended June, 30 2020 and 2019, respectively, related to licensed content assets.

Recently Adopted Accounting Standards

In June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standard Update ("ASU") 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*. The guidance amended reporting of credit losses for assets held at amortized cost basis and available-for-sale debt securities to require that credit losses on available-for-sale debt securities be presented as an allowance rather than as a write-down.

On January 1, 2020, the Company adopted this guidance using the modified retrospective adoption method and recorded a cumulative-effect adjustment to the beginning balance of accumulated deficit of approximately $1.1 million. The measurement of credit losses for newly recognized financial assets and subsequent changes in the allowance for credit losses are recorded in the statements of operations. This impact mainly relates to credit losses recognized on the Company's doubtful accounts. As the Company did not have any available-for-sale debt securities as of the adoption date, there was no additional impact to accumulated deficit.

In March 2019, the FASB issued ASU 2019-02, *Entertainment—Films—Other Assets—Film Costs (Subtopic 926-20) and Entertainment—Broadcasters—Intangibles—Goodwill and Other (Subtopic 920-350): Improvements to Accounting for Costs of Films and License Agreements for Program Materials*, in order to align the accounting for production costs of an episodic television series with the accounting for production costs of films by removing the content distinction for capitalization. ASU 2019-02 also requires that an entity reassess estimates of the use of a film in a film group and account for any changes prospectively. In addition, ASU 2019-02 requires that an entity test films and license agreements for program material for impairment at a film group level when the film or license agreements are predominantly monetized with other films and license agreements. On January 1, 2020, the Company adopted the guidance in ASU 2019-02. There was no material impact to the Company's consolidated financial statements.

The Company also adopted the following ASUs effective January 1, 2020, none of which had a material impact on the Company's financial position or results of operation.

ASU	Description
ASU 2018-15	Intangibles—Goodwill and Other—Internal-Use Software (Topic 350), Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract
ASU 2018-13	Fair Value Measurements (Topic 820), Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement
ASU 2017-04	Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment

In March 2020, FASB issued ASU 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*, This guidance provides optional expedients and exceptions for applying U.S. GAAP to contract modifications, hedging relationships, and other transactions that reference London Interbank Offered Rate (LIBOR) that is expected to be discontinued, subject to meeting certain criteria. The guidance is effective as of March 12, 2020 through December 31, 2022. The Company made a policy election in the second quarter of 2020 to elect a different reference rate for the Credit Agreement when LIBOR is discontinued. It is still uncertain when the transition from LIBOR to another reference rate will occur or which reference rate will become the accepted market alternative to LIBOR.

Recently Issued Accounting Pronouncements Not Yet Adopted

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*, to simplify the accounting for income taxes by removing certain exceptions to the general principles and also simplification of areas such as franchise taxes, step-up in tax basis goodwill, separate entity financial statements and interim recognition of enactment of tax laws or rate changes. The guidance is effective for fiscal years beginning after December 15, 2020, including interim reporting periods within those fiscal years, with early adoption permitted. The Company is currently in the process of evaluating the impact of this new guidance on the consolidated financial statements.

3. REVENUE

Revenue disaggregation:

The Company's disaggregated revenues are represented by the two reportable segments discussed in Note 14. The disaggregation is based on the evaluations that are regularly performed by the Chief Operating Decision Maker ("CODM") for purposes of allocating resources and evaluating financial performance. The Company's CODM is its Chief Executive Officer.

Contract balances:

Contract balances include the following (in thousands):

	As of	
	June 30, 2020	**December 31, 2019**
Accounts receivable, net	$ 306,719	$ 332,673
Contract assets (included in Prepaid expenses and other current assets)	$ 5,338	$ 3,588
Deferred revenue:		
Current	43,940	39,861
Non-current	17,243	15,370
Total deferred revenue	$ 61,183	$ 55,231

Accounts receivable are recorded at the amount invoiced, net of an allowance for doubtful accounts, sales returns, and sales incentives. Payment terms can vary by customer and contract.

The timing of revenue recognition may differ from the timing of invoicing to customers. Contract assets are created when invoicing occurs subsequent to revenue recognition. Contract assets are transferred to accounts receivable when the right to invoice becomes unconditional. Contract liabilities are included in deferred revenue and reflect consideration invoiced prior to the completion of performance obligations and revenue recognition.

Contract assets increased by approximately $1.8 million during the six months ended June 30, 2020 primarily due to an increase in the growth of platform revenue combined with the timing of billing which falls into a subsequent period. Deferred revenue increased by approximately $6.0 million during the six months ended June 30, 2020 due to the timing of fulfillment of performance obligations.

During the six months ended June 30, 2020, the Company recognized revenue of approximately $28.7 million from the amounts deferred as of December 31, 2019. During the six months ended June 30, 2019, the Company recognized revenue of approximately $37.9 million from the amounts deferred as of December 31, 2018.

Revenue Allocated to Future Performance Obligations:

Revenue allocated to remaining or unsatisfied performance obligations represents estimated revenue that has not yet been recognized which includes unearned revenue and amounts that will be invoiced and recognized as revenue in future periods. Estimated contracted revenue was $205.5 million as of June 30, 2020 of which we expect to recognize approximately 62% over the next 12 months and the remainder thereafter.

4. BUSINESS COMBINATION

On November 8, 2019, the Company acquired all outstanding shares of dataxu, Inc., (“dataxu”) according to the terms and conditions of the Agreement and Plan of Merger, dated as of October 22, 2019 (the “Merger Agreement”). dataxu is a demand-side platform (“DSP”) that enables marketers to plan and buy video ad campaigns. The acquisition of dataxu’s platform complements the Company’s OTT advertising platform and enables marketers to access a single, data-driven software solution to plan, buy, and optimize their ad spend across TV and OTT providers.

The total purchase consideration for dataxu was $147.3 million, which consisted of $77.6 million in cash and $69.7 million for the fair value of the Company’s 571,459 shares of common stock. Pursuant to the Merger Agreement, the Company had deposited $18.8 million into an escrow account to secure certain indemnifications and other potential obligations. $3.3 million from the escrow account was released in the quarter ended March 31, 2020.

Purchase Price Allocation

The allocation of the purchase consideration to tangible and intangible assets acquired and liabilities assumed is based on estimated fair values and is as follows (in thousands):

	As of June 30, 2020	Estimated Useful Lives (in years)
Assets acquired		
Current assets	$ 50,829	
Restricted cash	1,303	
Property and equipment, net	4,503	
Intangible assets:		
Developed technology	56,400	6.0
Customer relationships	13,400	4.0
Tradename	400	0.5
Goodwill	71,676	
Operating lease right-of-use assets	24,658	
Other long-term assets	235	
Total assets acquired	$ 223,404	
Liabilities assumed		
Current liabilities	$ (51,428)	
Operating lease liabilities	(24,658)	
Total liabilities assumed	$ (76,086)	
Total purchase consideration	**$ 147,318**	

The preliminary fair value estimates of the net assets acquired are based upon preliminary calculations and valuations, and those estimates and assumptions regarding certain tangible assets acquired and liabilities assumed, the valuation of intangible assets acquired, income taxes, and goodwill are subject to change as the Company obtains additional information during the measurement period, which usually lasts for up to one year from the acquisition date. The excess of the total consideration over the tangible assets, identifiable intangible assets, and assumed liabilities is recorded as goodwill.

5. GOODWILL AND INTANGIBLE ASSETS

Goodwill

Goodwill represents the excess of purchase consideration in a business combination over the fair value of tangible and intangible assets acquired net of the liabilities assumed.

The following table reflects the carrying value of goodwill (in thousands):

	Carrying Value
Balance as of December 31, 2019	$ 74,116
Adjustments (1)	(1,058)
Balance as of June 30, 2020	$ 73,058

(1) The adjustments arise from the resolution of contingencies associated with the dataxu acquisition.

Intangible Assets

The following table is the summary of Company's intangible assets (in thousands):

	As of June 30, 2020			
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Weighted-Average Useful Lives (in years)
Developed technology	$ 62,367	$ (8,148)	$ 54,219	5.9
Customer relationships	13,400	(2,233)	11,167	4.0
Tradename	400	(400)	-	0.5
Patents	4,076	(170)	3,906	14.0
Intangible assets	$ 80,243	$ (10,951)	$ 69,292	

	As of December 31, 2019			
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Weighted-Average Useful Lives (in years)
Developed technology	$ 62,367	$ (2,860)	$ 59,507	5.9
Customer relationships	13,400	(558)	12,842	4.0
Tradename	400	(133)	267	0.5
Patents	4,076	(24)	4,052	14.0
Intangible assets	$ 80,243	$ (3,575)	$ 76,668	

The Company recorded expenses of $3.6 million and $0.1 million for amortization of intangible assets during the three months ended June 30, 2020 and 2019, respectively. The Company recorded expenses of $7.4 million and $0.3 million for amortization of intangible assets during the six months ended June 30, 2020 and 2019, respectively. In three and six months ended June 30, 2020 and 2019, the Company recorded amortization of developed technology in cost of revenue, platform, cost of revenue, player, research and development, and general and administrative expenses in the consolidated statement of operations and recorded amortization of customer relationships and tradename in sales and marketing expenses in the consolidated statement of operations.

The estimated future amortization expense for intangible asset for the next five years and thereafter is as follows (in thousands):

Year Ending December 31,	
2020 (remaining 6 months)	$ 7,111
2021	14,036
2022	13,666
2023	13,108
2024	10,316
Thereafter	11,055
Total	$ 69,292

6. BALANCE SHEET COMPONENTS

Accounts Receivable, Net of allowances—Accounts receivable, net of allowances, consisted of the following (in thousands):

	As of	
	June 30, 2020	December 31, 2019
Gross accounts receivable	$ 325,841	$ 360,194
Allowance for sales returns	(5,412)	(6,550)
Allowance for sales incentives	(8,962)	(19,476)
Allowance for doubtful accounts	(4,403)	(1,140)
Other allowances	(345)	(355)
Total allowances	(19,122)	(27,521)
Total Accounts Receivable—net of allowances	$ 306,719	$ 332,673

Allowance for Sales Returns—Allowance for sales returns consisted of the following activities (in thousands):

	Three Months Ended June 30, 2020	Six Months Ended June 30, 2020
Balance, beginning of period	$ (4,668)	$ (6,550)
Charged to revenue	(3,959)	(6,686)
Utilization of sales return allowance	3,215	7,824
Balance, end of period	$ (5,412)	$ (5,412)

Allowance for Sales Incentives—Allowance for sales incentives consisted of the following activities (in thousands):

	Three Months Ended June 30, 2020	Six Months Ended June 30, 2020
Balance, beginning of period	$ (9,273)	$ (19,476)
Charged to revenue	(8,248)	(17,657)
Utilization of sales incentive allowance	8,559	28,171
Balance, end of period	$ (8,962)	$ (8,962)

Allowance for Doubtful Accounts—Allowance for doubtful accounts consisted of the following activities (in thousands):

	Three Months Ended June 30, 2020	Six Months Ended June 30, 2020
Balance, beginning of period	$ (4,959)	$ (1,140)
Impact of adoption of ASU 2016-13	-	(1,066)
Adjusted balance, beginning of period	(4,959)	(2,206)
Provision for doubtful accounts	273	(2,965)
Adjustments for recovery and write-off	283	768
Balance, end of period	$ (4,403)	$ (4,403)

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

	As of June 30, 2020	As of December 31, 2019
Computers and equipment	$ 27,725	$ 23,834
Leasehold improvements	141,859	93,239
Website and internal-use software	6,510	6,510
Office equipment and furniture	18,645	12,091
Total property and equipment	194,739	135,674
Accumulated depreciation and amortization	(41,992)	(32,412)
Property and Equipment, net	$ 152,747	$ 103,262

Depreciation and amortization expense, for property and equipment assets, for the three months ended June 30, 2020 and 2019 was $5.2 million and $2.7 million, respectively. Depreciation and amortization expense, for property and equipment assets, for the six months ended June 30, 2020 and 2019 was $9.9 million and $5.4 million, respectively.

Accounts Payable and Accrued Liabilities—Accounts payable and accrued liabilities consisted of the following (in thousands):

	As of June 30, 2020	As of December 31, 2019
Accounts payable	$ 130,601	$ 115,227
Payments due to content publishers	78,255	57,376
Accrued cost of revenue	53,001	58,149
Operating lease liability, current	27,120	17,896
Accrued royalty expense	8,688	18,040
Accrued payroll and related expenses	15,887	14,522
Accrued inventory	9,706	2,892
Content licensing liability	8,903	1,679
Marketing, retail and merchandising costs	11,066	7,624
Accrued legal fees	4,026	3,158
Customer prepayments	4,144	2,669
Taxes and related liabilities	2,914	3,052
Other accrued expenses	9,505	11,290
Total Accounts Payable and Accrued Liabilities	$ 363,816	$ 313,574

Deferred Revenue—Deferred revenue consisted of the following (in thousands):

	As of June 30, 2020	As of December 31, 2019
Platform, current	$ 21,204	$ 18,234
Player, current	22,736	21,627
Total deferred revenue, current	43,940	39,861
Platform, non-current	8,751	6,135
Player, non-current	8,492	9,235
Total deferred revenue, non-current	17,243	15,370
Total Deferred Revenue	$ 61,183	$ 55,231

7. FAIR VALUE

The Company's financial assets measured at fair value are as follows (in thousands):

	June 30, 2020		December 31, 2019	
	Fair Value	Level 1	Fair Value	Level 1
Assets:				
Cash and cash equivalents:				
Cash	$ 814,034	$ 814,034	$ 463,820	$ 463,820
Money market funds	71,791	71,791	51,659	51,659
Restricted cash	1,539	1,539	1,854	1,854
Total assets measured and recorded at fair value	$ 887,364	$ 887,364	$ 517,333	$ 517,333

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in the principal market (or most advantageous market, in the absence of a principal market) for the asset or liability in an orderly transaction between market participants at the measurement date. In measuring fair value, the Company utilizes a fair value hierarchy that prioritizes the inputs used and maximizes the use of observable inputs and minimizes the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows:

Level 1—Quoted prices in active markets for identical assets or liabilities.

Financial assets and liabilities measured using Level 1 inputs include cash equivalents, accounts receivable, prepaid expenses, accounts payable and accrued liabilities.

The Company considers all highly liquid investments purchased with an original or remaining maturity of 90 days or less at the date of purchase to be cash equivalents. The Company measured money market funds of $71.8 million and $51.7 million as cash equivalents as of June 30, 2020 and December 31, 2019, respectively, using Level 1 inputs.

Level 2—Observable inputs other than quoted prices included within Level 1, including quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; and inputs other than quoted prices that are observable or are derived principally from, or corroborated by, observable market data by correlation or other means.

The Company did not have Level 2 instruments at June 30, 2020 and December 31, 2019.

Level 3—Unobservable inputs that are supported by little or no market activity, are significant to the fair value of the assets or liabilities and reflect the Company's own assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances.

The Company did not have Level 3 instruments at June 30, 2020 and December 31, 2019.

Assets and liabilities that are measured at fair value on a non-recurring basis

Non-financial assets such as goodwill, intangible assets, property, plant, and equipment and operating lease right-of-use assets are evaluated for impairment and adjusted to fair value using Level 3 inputs, only when impairment is recognized. The Company recorded an impairment of $0.2 million and $0.9 million for certain operating lease right-of-use assets during the six months ended June 30, 2020 and the year ended December 31, 2019, respectively.

8. LEASES

The Company's operating leases are primarily for office real estate. The leases have remaining lease terms ranging from one year to 10 years and may include options to extend or terminate.

The components of lease expense are as follows (in thousands):

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Operating lease cost (1)	$ 13,921	$ 5,830	$ 29,122	$ 10,162
Sublease income	(899)	(546)	(1,685)	(1,126)
Net operating lease cost	$ 13,022	$ 5,284	$ 27,437	$ 9,036

(1) For the three and six months ended June 30, 2020, variable lease costs were $3.3 million and $5.5 million, respectively. For the three and six months ended June 30, 2019, variable lease costs were not significant. Variable lease costs primarily include common area maintenance charges.

Supplemental cash flow information related to leases is as follows (in thousands):

	Six Months Ended	
	June 30, 2020	June 30, 2019
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash outflows from operating leases	$ 15,184	$ 7,440
Right-of-use assets obtained in exchange for lease obligations:		
Operating leases	$ 2,771	$ 83,780

Supplemental balance sheet information related to leases was as follows (in thousands, except lease term and discount rate):

	As of	
	June 30, 2020	December 31, 2019
Operating lease right-of-use assets	$ 269,900	$ 283,291
Included in accounts payable and accrued liabilities:		
Operating lease liability, current	27,120	17,896
Operating lease liability, non-current	306,750	301,694
Total operating lease liability	$ 333,870	$ 319,590
Weighted average remaining lease term		
Operating leases (in years)	9.63	9.98
Weighted average discount rate		
Operating leases	4.65%	4.65%

Future lease payments under operating leases as of June 30, 2020 were as follows (in thousands):

Year ending December 31,	Operating Leases
2020 (remaining 6 months)	$ 15,891
2021	47,851
2022	44,740
2023	45,421
2024	44,689
Thereafter	246,828
Total future lease payments	445,420
Less: imputed interest	(88,238)
Less: expected tenant improvement allowance	(23,312)
Total	$ 333,870

As of June 30, 2020, the Company has additional operating leases, primarily corporate offices, that have not yet commenced of $10.0 million. These operating leases will commence in fiscal year 2020 with lease terms of five years.

9. DEBT

The Company’s outstanding debt as of June 30, 2020 and December 31, 2019 is as follows (in thousands):

	As of			
	June 30, 2020		December 31, 2019	
	Amount	Effective Interest Rate	Amount	Effective Interest Rate
Term Loan A Facility	$ 97,500	2.07%	$ 100,000	3.48%
Less: Debt issuance costs	(324)		(392)	
Net carrying amount	$ 97,176		$ 99,608	

The carrying amount of debt approximates fair value due to its variable interest rates.

The interest expense for three and six months ended June 30, 2020 relating to the Credit Agreement is $0.9 million and $1.5 million, respectively. The Company did not have any outstanding debt as of June 30, 2019. Interest expense for the three and six months ended June 30, 2019 mainly related to amortization of debt issuance costs and was not material.

Senior Secured Term Loan A and Revolving Credit Facilities

On February 19, 2019 (the “Original Closing Date”), the Company entered into a Credit Agreement (the “Existing Credit Agreement”) with Morgan Stanley Senior Funding, Inc. On May 3, 2019, (the “Closing Date”), the Existing Credit Agreement was amended pursuant to an Incremental Assumption and Amendment No. 1 (the “Amendment” and the Existing Credit Agreement as amended by the Amendment, the “Credit Agreement”). On the Original Closing Date, the Company terminated the Amended and Restated Loan and Security Agreement that it entered into with Silicon Valley Bank in November 2014 (the “Restated 2014 LSA”).

The Credit Agreement provides for (i) a four-year revolving credit facility in the aggregate principal amount of up to $100.0 million (the “Revolving Credit Facility”), (ii) a four-year delayed draw term loan A facility in the aggregate principal amount of up to $100.0 million (the “Term Loan A Facility”) and (iii) an uncommitted incremental facility, subject to the satisfaction of certain financial and other conditions, in the amount of up to (v) $50.0 million, plus (w) 1.0x of the Company’s EBITDA for the most recently completed four fiscal quarter period, plus (x) an additional amount at the Company’s discretion, so long as, on a pro forma basis at the time of incurrence, the Company’s secured leverage ratio does not exceed 1.50 to 1.00, plus (y) voluntary prepayments of the Revolving Credit Facility and Term Loan A Facility to the extent accompanied by concurrent reductions to the applicable Credit Facility (together with the Revolving Credit Facility and the Term Loan A Facility, collectively, the “Credit Facility”).

On November 18, 2019, the Company borrowed the Term Loan A facility in the aggregate principal amount of $100.0 million. In March 2020, the Company borrowed the available balance of $69.3 million from the Revolving Credit Facility. For both borrowings, the Company elected an interest rate equal to the adjusted one-month LIBOR rate plus an applicable margin of 1.75% based on the Company’s secured leverage ratio. In May 2020, the Company repaid the outstanding balance on the Revolving Credit Facility.

Loans under the Term Loan A Facility amortize in equal quarterly installments beginning on March 31, 2020, in an aggregate annual amount equal to (i) on or prior to December 31, 2021, 1.25% of the drawn principal amount of the Term Loan Facility or $1.25 million and (ii) thereafter, 2.50% of the drawn principal amount of the Term Loan Facility or $2.5 million, with the remaining balance payable on the maturity date of the Term Loan A Facility in February 2023. The Revolving Credit Facility may be borrowed, repaid and reborrowed until the fourth anniversary of the Closing Date in February 2023, at which time all outstanding balances of the Revolving Credit Facility are due to be repaid.

The Company had outstanding letters of credit against the Revolving Credit Facility of $29.8 million and $30.7 million as of June 30, 2020 and December 31, 2019, respectively.

The Company’s obligations under the Credit Agreement are secured by substantially all of its assets. In the future, certain of its direct and indirect subsidiaries may be required to guarantee the Credit Agreement. The Company may prepay, and in certain circumstances would be required to prepay, loans under the Credit Agreement without payment of a premium. The Credit Agreement contains customary representations and warranties, customary affirmative and negative covenants, a financial covenant that is tested quarterly and requires the Company to maintain a certain adjusted quick ratio of at least 1.00 to 1.00, and customary events of default.

As of June 30, 2020, the Company was in compliance with all of the covenants of the Credit Agreement.

10. STOCKHOLDERS' EQUITY

At-the-Market Offerings

On May 13, 2020, the Company entered into an Equity Distribution Agreement with Morgan Stanley & Co. LLC and Citigroup Global Markets Inc., as its sales agents, pursuant to which the Company could offer and sell from time to time up to an aggregate of 4.0 million shares of the Company's Class A common stock. As of June 30, 2020, the Company received gross proceeds of $354.4 million from the sale of 3.0 million of these shares at an average selling price of $117.98 per share and incurred issuance costs of $4.8 million.

Preferred Stock

The Company is authorized to issue 10 million shares of undesignated preferred stock with rights and preferences determined by the Company's Board of Directors at the time of issuance.

As of June 30, 2020 and December 31, 2019, there were no shares of preferred stock issued and outstanding.

Common Stock

The Company has two classes of authorized common stock, Class A common stock and Class B common stock. All shares of common stock outstanding immediately prior to the initial public offering ("IPO"), including shares of common stock issued upon the conversion of the convertible preferred stock, were converted into an equivalent number of shares of Class B common stock. All common stock, stock options, and restricted stock units issued at the time of, and subsequent to, the IPO are exercised or vested into shares of Class A common stock.

Common Stock Reserved for Future Issuance

As of June 30, 2020, the Company had reserved shares of common stock for issuance as follows (in thousands):

	As of June 30, 2020
Common stock awards granted under equity incentive plans	14,365
Common stock awards available for issuance under the 2017 Employee Stock Purchase Plan*	5,089
Common stock awards available for issuance under the 2017 Equity Incentive Plan	22,567
Total reserved shares of common stock	42,021

* The Company has not issued any common stock pursuant to the 2017 Employee Stock Purchase Plan.

Equity Incentive Plans

The Company has two equity incentive plans, the 2008 Equity Incentive Plan (the "2008 Plan") and the 2017 Equity Incentive Plan (the "2017 Plan"). The 2017 Plan became effective September 2017 in connection with the IPO. No further shares have been issued under the 2008 Plan. The 2017 Plan provides for the grant of incentive stock options to the Company's employees and for the grant of non-statutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance stock awards, performance cash awards, and other forms of equity compensation to the Company's employees, directors and consultants.

Restricted stock units granted under the plan are subject to continuous service. Options granted under the plans are granted at a price per share equivalent to the fair market value on the date of grant.

Restricted Stock Units

Restricted stock unit activity for the six months ended June 30, 2020 is as follows (in thousands, except per share data):

	Number of Shares	Weighted Average Grant Date Fair Value Per Share
Balance, December 31, 2019 - outstanding	4,544	$ 67.30
Awarded	586	124.63
Released	(576)	65.27
Forfeited	(185)	64.63
Balance, June 30, 2020 - outstanding	4,369	$ 75.37

The grant-date fair value of restricted stock units granted during the six months ended June 30, 2020 and 2019 was $73.0 million and $62.0 million, respectively.

The fair value of restricted stock units that vested during the three months ended June 30, 2020 and 2019 was $20.5 million and $10.0 million, respectively, and during the six months ended June 30, 2020 and 2019 was $37.6 million and $17.6 million, respectively. Total unrecognized compensation cost related to restricted stock units as of June 30, 2020 was $277.6 million, which the Company expects to recognize over 2.46 years.

Stock Options

The following table summarizes the Company's stock option activities under the 2008 Plan and 2017 Plan (in thousands, except per share data):

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Weighted Average Grant Date Fair Value Per Share	Aggregate Intrinsic Value
Balance, December 31, 2019 - outstanding	11,124	$ 14.84	6.2	—	
Granted	21	113.31	—	$ 38.95	
Exercised	(1,107)	5.31	—	—	
Forfeited and expired	(42)	8.45	—	—	
Balance, June 30, 2020 - outstanding	9,996	$ 16.13	5.8	—	$ 1,003,651
Options exercisable at June 30, 2020	6,826	$ 6.66	5.0	—	$ 750,064

The intrinsic value for options exercised during the three months ended June 30, 2020 and 2019, was $67.0 million and $135.8 million, respectively, and during the six months ended June 30, 2020 and 2019 was $119.7 million and $245.5 million, respectively. Intrinsic value represents the difference between the fair values of the Company's common stock and the options' exercise price on the date of grant.

As of June 30, 2020, the Company had $32.6 million of unrecognized stock compensation expense related to unvested stock options that is expected to be recognized over a weighted-average period of approximately 1.55 years.

Stock-Based Compensation

The Company measures the cost of awards granted under equity incentive plans based on the grant date fair value. The Company uses the straight-line method for expense recognition and recognizes forfeitures as they occur.

The following table shows total stock-based compensation expense for the three and six months ended June 30, 2020 and 2019 (in thousands):

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Cost of platform revenue	$ 232	$ 59	$ 443	$ 118
Cost of player revenue	310	246	648	489
Research and development	13,348	9,258	26,603	17,790
Sales and marketing	9,615	4,974	19,672	10,140
General and administrative	6,531	4,134	13,075	7,998
Total stock-based compensation	$ 30,036	$ 18,671	$ 60,441	$ 36,535

The fair value of options granted under the equity incentive plans is estimated on the grant date using the Black-Scholes option-valuation model. The assumptions used in the Black-Scholes model are as follows:

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Dividend rate	—	—	—	—
Expected term (in years)	5.0 - 5.27	5.0 - 5.27	5.0 - 5.27	5.0 - 5.27
Risk-free interest rate	0.31 - 0.37%	1.83 - 2.31%	0.31 - 1.67%	1.83 - 2.56%
Expected volatility	37.9 - 38.6%	36%	35.8 - 38.6%	36%

11. COMMITMENTS AND CONTINGENCIES

Manufacturing Purchase Commitments

The Company has various manufacturing contracts with vendors in the conduct of the normal course of its business. In order to manage future demand for our products, the Company enters into agreements with manufacturers and suppliers to procure inventory based upon certain criteria and timing. Some of these commitments are non-cancelable. As of June 30, 2020, the Company had $142.2 million purchase commitments for inventory.

The Company records a liability for non-cancelable purchase commitments in excess of projected demand forecasts. Obligations in excess of demand were not calculated to be material as of June 30, 2020. The Company recorded $0.3 million for these purchase commitments in “Accrued liabilities” at December 31, 2019.

Content License Purchase Commitments

At June 30, 2020 and December 31, 2019, the Company recorded $8.9 million and $1.7 million, respectively, as obligations in “Accrued liabilities” for licensed content that is available for streaming. The increase in content liability is due to change in the mix of content licensed and the period over which this content is available for streaming.

The Company also enters into contracts with content publishers to acquire content in the future. Some of these commitments are non-cancelable. As of June 30, 2020, the Company had $37.4 million in commitments with content publishers that includes amounts already recognized as liability for content available for streaming.

Letters of Credit

As of June 30, 2020 and December 31, 2019, the Company had irrevocable letters of credit outstanding in the amount of $31.6 million and $31.8 million, respectively, related to facilities leases. The letters of credit have various expiration dates through 2030.

Contingencies

The Company accrues for loss contingencies, including liabilities for intellectual property licensing, when it believes such losses are probable and reasonably estimable.

The Company is currently involved in, and may in the future be involved in, legal proceedings, claims, and investigations in the ordinary course of business, including claims for infringing patents, copyrights or other intellectual property rights related to its platform and products, or the content distributed through its platform by the Company or third-party channel developers. Although the results of these proceedings, claims, and investigations cannot be predicted with certainty, the Company does not believe that the final outcome of any matters that it is currently involved in are reasonably likely to have a material adverse effect on its business, financial condition, or results of operations.

Indemnification

In the ordinary course of business, we enter into agreements in which we may agree to indemnify business partners, customers, suppliers, vendors, lessors, business partners and other parties with respect to certain matters, including losses resulting from claims of intellectual property infringement, damages to property or persons, business losses, or other liabilities. These indemnity provisions generally survive termination or expiration of the agreements in which they appear. In addition, we have entered into indemnification agreements with our directors, executive officers and other officers that will require us to indemnify them against liabilities that may arise by reason of their status or service as directors, officers or employees. To date, the Company has not incurred any material costs as a result of such obligations.

12. INCOME TAXES

Income tax expense for the three months ended June 30, 2020 was $0.5 million as compared to income tax benefit of $0.4 million for the three months ended June 30, 2019. Income tax expense for the six months ended June 30, 2020 was $0.3 million as compared to income tax benefit of $0.5 million for six months ended June 30, 2019. The income tax expense and benefit for the three and six months ended June 30, 2020 and 2019, were primarily attributable to non-U.S. tax benefit associated with the Company's non-U.S. operations. Based on the available objective evidence during the three months ended June 30, 2020, the Company believes it is more likely than not that the tax benefits of the U.S. losses incurred may not be realized. Accordingly, the Company recorded a full valuation allowance against the tax benefits of the U.S. losses incurred. The primary difference between the effective tax rate and the statutory tax rate relates to the valuation allowance on the Company's U.S. losses.

The tax benefit related to stock-based compensation expense for all periods presented was not material.

A valuation allowance is provided when it is more likely than not that some portion of the deferred tax assets will not be realized through future operations. As a result of the Company's analysis of all available objective evidence, both positive and negative, as of June 30, 2020, management believes it is more likely than not that the deferred tax assets will not be fully realizable. Accordingly, the Company has provided a full valuation allowance against its deferred tax assets with the exception of deferred tax assets related to foreign entities in the UK, China, India, Netherlands, and Denmark.

On June 29, 2020, California enacted legislative changes that impose an annual cap of $5 million on the amount of business incentive tax credits the Company can utilize in California effective for tax years 2020 through 2022. The legislation has no impact to the Company's tax provision due to our full valuation allowance.

13. NET LOSS PER SHARE

The Company's basic net loss per share is calculated by dividing the net loss by the weighted-average number of shares of common stock outstanding for the period. For purposes of the calculation of diluted net loss per share options to purchase common stock, restricted stock units and unvested shares of common stock issued upon the early exercise of stock options are considered common stock equivalents but have been excluded from the calculation of diluted net loss per share as their effect is antidilutive.

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

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Numerator:				
Net loss	$ (43,148)	$ (9,333)	$ (97,760)	$ (19,065)
Denominator:				
Weighted-average shares used in computing net loss per share, basic and diluted	122,614	114,572	121,397	112,734
Net loss per share, basic and diluted	$ (0.35)	$ (0.08)	$ (0.81)	$ (0.17)

Common shares that would be excluded from the calculation of diluted net loss per share because of their anti-dilutive effect are as follows (in thousands):

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Equity awards to purchase common stock	14,365	16,595	14,365	16,595
Unvested shares of common stock issued upon early exercise of stock options and business acquisition	9	45	9	45
Total	14,374	16,640	14,374	16,640

14. SEGMENT INFORMATION

The Company is organized into two reportable segments as follows:

Platform

Platform revenue includes sale of advertising and related services, subscription and transaction revenue shares, sales of branded channel buttons on remote controls and licensing arrangements with TV brands and service operators.

Player

Player revenue is generated from the sale of streaming media players, audio products and accessories through retailers and distributors, as well as directly to customers through the Company's website.

Customers accounting for 10% or more of segment revenue were as follows:

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Platform segment revenue				
Customer D	*	*	*	10%
Customer H	15%	*	14%	*
Player segment revenue				
Customer A	*	14%	11%	16%
Customer B	18%	17%	16%	19%
Customer C	38%	40%	42%	38%

* Less than 10% of segment revenue

Substantially all of the Company's assets were held in the United States ("U.S.") and were attributable to the operations in the U.S. as of June 30, 2020 and December 31, 2019. Revenue in international markets was less than 10% for all periods presented.

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 our condensed consolidated financial statements and related notes included elsewhere in this Quarterly Report on Form 10-Q and with our audited consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2019, filed on March 2, 2020, with the SEC (the "Annual Report").

Overview

Roku is the leading TV streaming platform in the United States based on hours streamed. We pioneered streaming to the TV and were founded on the belief that someday all TV content would be streamed. Our business model is driven by three core activities. We focus on (i) increasing the number of active accounts on our streaming platform, (ii) increasing user engagement and growing the hours of content streamed, and (iii) growing our revenue and gross profit by monetizing user activity on our platform. To increase the number of active accounts on our platform, we sell stand-alone streaming players, and we partner with TV brand partners who license the Roku OS to manufacture and sell Roku TV models, and we also license the Roku OS to certain service operators.

We operate in two revenue segments: the platform segment and the player segment. We generate platform revenue from the sale of advertising and related services, content distribution services, subscription and transaction revenue shares, Premium Subscriptions, billing services, sale of branded channel buttons on remote controls and licensing arrangements with TV brands and service operators. We generate player revenue from the sale of our players and audio products.

Highlights for the three months ended June 30, 2020 compared to the three months ended June, 30 2019 included:

- Active accounts increased 41% to 43.0 million;
- Streaming hours increased 65% to 14.6 billion*;
- Revenue increased 42% to $356.1 million;
- Gross profit increased 29% to $146.8 million; and
- Average revenue per user ("ARPU") increased 18% to $24.92.

COVID-19 Update

During the first and second quarters of 2020, the outbreak and spread of the novel strain of coronavirus referred to as COVID-19, which was declared a pandemic by the World Health Organization in March 2020, resulted in governmental authorities implementing numerous precautionary measures to slow down the spread of the virus, including travel bans and restrictions, quarantine requirements, stay-at-home orders and business limitations and shutdowns. Although these measures have eased in some locations, the COVID-19 pandemic and the resulting precautionary measures have caused, and are expected to continue to cause, economic declines both in the U.S. and globally as well as significant volatility in and disruption to financial markets.

The COVID-19 pandemic and the resulting precautionary measures continued to have a mixed impact on our business during the quarter ended June 30, 2020 and into the third quarter of 2020. During the second quarter we continued to see an acceleration in the growth of active accounts and streaming hours. Although streaming hours per account have moderated since they peaked early in the second quarter of 2020, they remain elevated from streaming hours per account prior to the COVID-19 pandemic. During the second quarter of 2020, we saw strong user engagement and revenue growth for the platform segment. Our platform business saw an increase in subscription signups, increased purchases of transactional video on demand ("TVOD") content with movie and TV rentals reaching an all-time high in April 2020, and elevated revenues from branded buttons due to an increase in streaming device sales. Our content partners, in the aggregate, also increased their spend with us. Despite an overall decline in advertising spend across the marketplace, during the second quarter of 2020 we experienced continued growth in our advertising business. Although advertising industry outlook remains uncertain for the remainder of the year and we expect that recovery in total TV advertising spend to pre-pandemic levels will continue into 2021, we continue to believe that the ongoing COVID-19 pandemic and the economic downturn will shift advertising budgets from traditional linear TV to streaming TV. We also continue to believe that we will benefit from advertising buyers reallocating these budgets to advertising on our platform due to our active account reach and advanced advertising

* Reported streaming hours data reflects adjustments to our streaming hours calculations for current and certain prior periods. Details can be found in "Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations" in this Quart

capabilities. While we have experienced an increase in TV streaming during the COVID-19 pandemic and aspects of our platform segment have benefitted from the increase, there can be no assurance that these patterns will continue for the remainder of 2020, or beyond.

The sales of our players and our partners' sales of Roku TV models remained strong during the second quarter of 2020 as the COVID-19 pandemic and related precautionary measures have increased overall demand for our players and our partners' Roku TV models. Despite the pandemic's adverse impact on global supply chains, we have largely been able to keep our players in stock at retailers and online by a greater use of air freight than we originally planned. During the second quarter, due to the increased demand for our players coupled and tighter inventory levels we ran fewer promotions than we expected which resulted in higher player margins than expected. During July, we continued to experience strong demand and tight supply conditions for both our players and our partners' Roku TV models. While we have experienced increased demand for our players, some of our retail partners either closed or severely limited access to their brick and mortar locations which may continue for the remainder of 2020, and beyond. We intend to continue to work closely with our retail partners and Roku TV partners to plan for the remainder of 2020, especially given the possibility that the COVID-19 pandemic or economic downturn could impact traditionally strong sales periods, including Back-to-School, Black Friday and the holiday shopping season. While our player and Roku TV model sales have remained strong during the COVID-19 pandemic, there can be no assurance that these patterns will continue for the remainder of 2020, or beyond.

The COVID-19 pandemic's impact on our operations and financial performance remains uncertain. As a result, while we are committed to continuing to invest in strategic areas to extend our competitive advantages, during the second quarter of 2020 we continued to monitor our operating expenses and capital expenditures and although we continued to hire we did so at a slower pace than pre-pandemic levels. During the second quarter we also increased our liquidity by raising $349.6 million, net of offering costs, from the issuance of shares of our Class A common stock through an at-the-market offering. We will continue to actively monitor the COVID-19 pandemic's impact and may take further actions as may be required by federal, state, local or foreign authorities, or that we believe are in the best interests of the Company, its employees, partners and stockholders. Due to the speed at which the situation is changing and the uncertainty of its duration and the timing of recovery, we are unable to accurately predict the full impact that the COVID-19 pandemic and the economic downturn will have on our results of operations, financial condition, liquidity and cash flow.

Key Performance Metrics

The key performance metrics we use to evaluate our business, measure our performance, develop financial forecasts and make strategic decisions are gross profit, active accounts, streaming hours, and ARPU.

Gross Profit

We use gross profit as the primary metric to measure the performance of our business because we have two revenue segments that have different margin profiles, and we aim to maximize our higher margin platform revenue from our active accounts as they stream content on our platform. The majority of our gross profit is generated from our platform segment.

Our gross profit was $146.8 million and $287.9 million for the three and six months ended June 30, 2020, respectively, and $114.2 million and $215.1 million for the three and six months ended June 30, 2019, respectively.

Active Accounts

We believe that the number of active accounts is a relevant measure to gauge the size of our user base. We define active accounts as the number of distinct user accounts that have streamed content on our platform within the last 30 days of the period. Users who streamed content from The Roku Channel only on non-Roku platforms are not included in this metric. The number of active accounts also does not correspond to the number of unique individuals who actively utilize our platform or the number of devices associated with an account. For example, a single account may be used by more than one individual, such as a family, and one account may be used on multiple streaming devices.

We had 43.0 million and 30.5 million active accounts as of June 30, 2020 and 2019, respectively.

Hours Streamed

We believe the number of streaming hours on our platform is an effective measure of user engagement and that the growth in the number of hours of content streamed across our platform reflects our success in addressing the growing user demand for TV streaming. We define streaming hours as the aggregate amount of time streaming devices stream content on our platform in a given period. Hours streamed on non-Roku platforms are not included in this metric. Our streaming hours are internally calculated utilizing data received from our streaming devices that is logged in a central database. See "Note About Our Streaming Hours Adjustments" below for additional information. Other companies and third-party industry sources utilize their own data sources and may utilize different measurement methodologies to calculate streaming hours. As a result, our streaming hours may not be directly comparable to another company's or any third-party's calculation of streaming hours. We report streaming hours on a calendar basis.

Additionally, we believe that over time, increasing user engagement on our streaming platform increases our platform monetization because we earn platform revenue from advertising as well as from revenue shares from subscriptions and transactional video on-demand. However, our revenue from content publishers is not tied to the hours streamed on their streaming channels, and the number of streaming hours does not correlate to revenue earned from such content publishers or ARPU on a period-by-period basis. Moreover, streaming hours on our platform are measured whenever a player or a Roku TV is streaming content, whether a viewer is actively watching or not. For example, if a player is connected to a TV, and the viewer turns off the TV, steps away or falls asleep and does not stop or pause the player, then the particular streaming channel may auto-play subsequent content for a period of time determined by the streaming channel. We believe that this also occurs across a wide variety of non-Roku streaming devices and other set-top boxes.

During the third quarter of 2019, we began the roll out of a new Roku OS feature to our entire installed base that is designed to identify when content has been continuously streaming on a channel for an extended period of time without user interaction. This feature, which we refer to as "Are you still watching," periodically prompts the user to confirm that they are still watching the selected channel and closes the channel if the user does not respond affirmatively. We believe that implementing this new feature across the Roku platform will benefit us as well as our customers, channel partners and advertisers. Some of our leading channel partners, including Netflix, have already implemented similar features within their channels. "Are you still watching" supplements these channel features. We completed the rollout of the feature to our entire installed base in the first quarter of 2020. We do not expect the rollout of this feature to have a material impact on our future financial performance.

We streamed 14.6 billion and 8.8 billion hours during the three months ended June 30, 2020 and 2019, respectively.

Note About Our Streaming Hours Adjustments

To calculate and report our streaming hours, we utilize data from event logs generated by the firmware running on the Roku devices that are recorded in a central database. The event information (play, pause, stop, time counts, etc.) is generated by the firmware running on the Roku streaming devices, and event data is transmitted to our central database at regular intervals when a device is connected to the internet. Pause time is not intended to be included in streaming hours.

During the second quarter of 2020 we discovered that some pause time was inadvertently included in the streaming hours information recorded in our central database. Upon discovering these errors in the log data, we promptly reviewed and analyzed the issue utilizing our firmware, data engineering and core analytics teams. We concluded that certain past Roku OS releases inadvertently caused the logging errors. The error rates varied over time and across different types of devices and firmware versions. As a result, we reported higher streaming hours and streaming hours growth rates for the affected periods than we would have if all pause time had been excluded from streaming hours as we had intended. Neither these logging errors, nor the resulting adjustments that we made to our streaming hours calculations, has had any impact on our financial results, and do not require us to revise any of our previously reported key operating metrics other than streaming hours.

The affected log data was for the periods from February 2016 to date. After adjusting for logging errors, we estimate that our streaming hours were, on average, approximately 0.5% lower than previously reported for the period January 2017 through September 2018, and approximately 5.8% lower for the period October 2018 through March 2020.

By the end of August 2020, we expect to fully deploy a software update that will address the root cause of the pause time logging errors and prevent them from continuing.

The roll out of the "Are you still watching" feature had no impact on the adjustments we made to our streaming hours calculations. While our revenue from content publishers is not based on the hours streamed on their streaming channels, and the number of streaming hours does not directly correlate to revenue earned from such content publishers or ARPU on a period-by-period basis; we believe that the growth in the number of hours of content streamed across our platform reflects our success in addressing the growing user demand for TV streaming. After adjusting our streaming hours as discussed above, our estimated year-over-year streaming hour growth rates for fiscal year 2018 versus fiscal year 2017, fiscal year 2019 versus fiscal year 2018 and the first quarter of 2020 versus the first quarter of 2019 were 60.5%, 59.3% and 46.8%, respectively. The estimated year-over-year streaming hour growth rate for the second quarter of 2020 versus the second quarter of 2019 was 65%.

The following table presents the estimated impacts on streaming hours (in billions) for periods from January 1, 2017 through March 31, 2020 and streaming hours growth rates on a year-over-year ("YoY") basis by quarter for periods from January 1, 2018 through March 31, 2020 and annually for fiscal year 2018 and 2019. Revised streaming hours for 2016 are not estimated and therefore revised 2017 YoY growth rates are not available.

Quarter	Published SHs	Revised SHs	SHs % Delta	Published YoY	Revised YoY
2017 Q1	3.3B	3.2B	-0.5%	63.4%	NA
2017 Q2	3.5B	3.5B	-0.4%	60.0%	NA
2017 Q3	3.8B	3.8B	-0.4%	57.8%	NA
2017 Q4	4.3B	4.3B	-0.2%	55.3%	NA
2018 Q1	5.1B	5.1B	-0.5%	56.0%	56.1%
2018 Q2	5.5B	5.4B	-0.5%	57.2%	57.0%
2018 Q3	6.2B	6.1B	-0.7%	62.7%	62.1%
2018 Q4	7.3B	7.1B	-2.2%	68.6%	65.2%
2019 Q1	8.9B	8.4B	-5.4%	74.1%	65.5%
2019 Q2	9.4B	8.8B	-6.0%	72.1%	62.6%
2019 Q3	10.3B	9.6B	-6.5%	67.6%	57.9%
2019 Q4	11.7B	10.9B	-6.3%	60.2%	53.7%
2020 Q1	13.2B	12.3B	-7.0%	49.3%	46.8%

Year	Published SHs	Revised SHs	SHs % Delta	Published YoY	Revised YoY
2017	14.8B	14.8B	-0.4%	58.8%	NA
2018	24.0B	23.7B	-1.1%	61.7%	60.5%
2019	40.3B	37.8B	-6.1%	67.8%	59.3%

Average Revenue per User

We measure our platform monetization through ARPU, which we believe represents the inherent value of our business. We define ARPU as our platform revenue for the trailing four quarters divided by the average of the number of active accounts at the end of the current period and the end of the corresponding period in the prior year. ARPU measures the rate at which we are monetizing our active account base and the progress of our platform business. We believe we have a significant opportunity to continue to grow platform revenue, and, as we further monetize streaming hours, we believe we will increase ARPU. The growth of ARPU however, is dependent upon the relative growth rates of platform revenue to active accounts. If for example, if our active accounts grow at a faster rate than platform revenue, our ARPU would decrease.

ARPU was $24.92 as of June 30, 2020 as compared to $21.06 as of June 30, 2019, an increase of 18%.

Components of Results of Operations

Revenue

Platform Revenue

We generate platform revenue from advertising sales and related services, subscription and transaction revenue sharing arrangements with partners, the sale of Premium Subscription services, sales of branded channel buttons on remote controls and licensing arrangements with TV brands and service operators. Our first-party video ad inventory includes The Roku Channel, native display ads on our home screen and screen saver as well as ad inventory we obtain through our content publisher agreements. To supplement our supply, we can re-sell video inventory that we purchase from content publishers and, to a lesser extent, directly sell third-party inventory on a revenue share basis. To date, we generate most of our platform revenue in the United States.

Player Revenue

We generate player revenue primarily from the sale of streaming players through consumer retail distribution channels, including major brick and mortar retailers, such as Best Buy and Walmart, and online retailers, primarily Amazon. We generate most of our player revenue in the United States. In our international markets, we sell our players through wholesale distributors which, in turn, re-sell to retailers. We currently distribute our players in Canada, the United Kingdom, France, the Republic of Ireland, Mexico and several other Latin American countries.

Player revenue also includes the sale of our audio products, including wireless speakers, smart soundbars and wireless subwoofers.

Cost of Revenue

Cost of Platform Revenue

Cost of platform revenue consists of the cost of acquiring advertising inventory, content or programming licensing fees, payment processing fees, third-party cloud service and other technology expenses, amortization of acquired technology, and allocated personnel-related costs, including salaries, benefits and stock-based compensation for Roku personnel who support platform services.

Cost of Player Revenue

Cost of player revenue is comprised of player manufacturing costs payable to our third-party contract manufacturer, technology licenses or royalty fees, inbound and outbound freight, duty and logistics costs, third-party packaging and assembly costs, provision for excess or obsolete inventory, allocated overhead costs related to facilities and customer support, and salary, benefit and stock-based compensation costs for operations personnel.

Operating Expenses

Research and Development

Research and development expenses consist primarily of personnel-related costs, including employee salaries, benefits and stock-based compensation for our engineers and other employees engaged in the development of our products including new technologies, features and functionality and fees for outsourced consulting services. In addition, research and development expenses include allocated facilities and overhead costs. We expect research and development expense to increase in absolute dollars as we continue to invest in the development of our platform to support additional features and functions, player and TV products, advertising products and other platform services.

Sales and Marketing

Sales and marketing expenses consist primarily of personnel-related costs, including salaries, benefits, commissions and stock-based compensation expense for our employees engaged in sales and sales support, marketing, communications, data science and analytics, business development, product management and partner and customer support functions. Sales and marketing expenses also include marketing, retail and merchandising costs, as well as events, public relations and other professional services and allocated facilities and overhead. We expect sales and marketing expenses to increase in absolute dollars in future periods as we focus on growing active accounts, player and platform revenue, and expanding our business internationally.

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 personnel. We expect our general and administrative expenses to increase due to the anticipated growth of our business and related infrastructure, compliance with global laws and regulations, as well as accounting, legal, insurance, investor relations and other costs associated with being a public company.

Other Income (Expense), Net

Our other income (expense), net, for the three and six months ended June 30, 2020 consists of interest income on cash and cash equivalents, interest expense that primarily includes interest on our Credit Agreement and amortization of deferred debt costs and foreign currency re-measurement and transaction gains and losses. Other income (expense), net for three and six months ended June 30, 2019 consists of interest income on short-term investments and foreign currency re-measurement and transaction gains and losses.

Income Tax Expense

Our income tax expense consists primarily of income taxes in certain foreign jurisdictions where we conduct business and state minimum income taxes in the United States. We have a valuation allowance for U.S. deferred tax assets, including net operating loss carryforwards and tax credits related primarily to research and development. We expect to maintain this valuation allowance for the foreseeable future.

Results of Operations

The following table sets forth our results of operations as a percentage of net revenue.

	Three Months Ended		Six Months Ended	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Net Revenue:				
Platform	69%	67%	71%	66%
Player	31%	33%	29%	34%
Total net revenue	100%	100%	100%	100%
Cost of Revenue:				
Platform	30%	23%	31%	22%
Player	29%	31%	26%	31%
Total cost of revenue	59%	54%	57%	53%
Gross Profit:				
Platform	39%	44%	40%	45%
Player	2%	2%	3%	2%
Total gross profit	41%	46%	43%	47%
Operating Expenses:				
Research and development	24%	25%	26%	26%
Sales and marketing	18%	15%	20%	15%
General and administrative	11%	10%	12%	11%
Total operating expenses	53%	50%	58%	52%
Loss from Operations	(12)%	(4)%	(15)%	(5)%
Other Income, Net:				
Interest expense	—%	—%	(1)%	—%
Other income, net	—%	—%	—%	—%
Total other income (expense), net	—%	—%	(1)%	—%
Loss Before Income Taxes	(12)%	(4)%	(16)%	(5)%
Income tax (benefit) expense	—%	—%	—%	—%
Net Loss	(12)%	(4)%	(16)%	(5)%

Comparison of Three and Six Months Ended June 30, 2020 and June 30, 2019

Net Revenue

(in thousands, except percentages)	Three Months Ended June 30, 2020	Three Months Ended June 30, 2019	Change $	Change %	Six Months Ended June 30, 2020	Six Months Ended June 30, 2019	Change $	Change %
Platform	$ 244,777	$ 167,682	$ 77,095	46%	$ 477,334	$ 301,835	$ 175,499	58%
Player	111,296	82,419	28,877	35%	199,505	154,928	44,577	29%
Total Net Revenue	$ 356,073	$ 250,101	$ 105,972	42%	$ 676,839	$ 456,763	$ 220,076	48%

Platform

Platform revenue increased by $77.1 million, or 46%, during the three months ended June 30, 2020 compared to the three months ended June 30, 2019. The increase is mainly attributable to higher content distribution revenue and related transactional revenue, including Premium Subscriptions, in addition to advertising revenue, which includes revenue from dataxu which we acquired in November 2019.

Platform revenue increased by $175.5 million, or 58%, during the six months ended June 30, 2020 compared to the six months ended June 30, 2019. The increase is mainly attributable to higher content distribution revenue and related transactional revenue, including Premium Subscriptions, in addition to advertising revenue, which includes revenue from dataxu which we acquired in November 2019.

Player

Player revenue increased by $28.9 million, or 35%, during the three months ended June 30, 2020 as compared to the three months ended June 30, 2019, due to increases in revenue from sales of players, including audio products, and accessories. The overall increase was primarily driven by players, as the volume of net units sold increased 28% as compared to the three months ended June 30, 2019 offset by a 2% decrease in their average selling price.

Player revenue increased by $44.6 million, or 29%, during the six months ended June 30, 2020 as compared to the six months ended June 30, 2019, due to increases in revenue from sales of players, including audio products, and accessories. The overall increase was primarily driven by players, as the volume of net units sold increased 27% as compared to the six months ended June 30, 2019 offset by a 4% decrease in their average selling price of players.

Cost of Revenue and Gross Profit

(in thousands, except percentages)	Three Months Ended June 30, 2020	Three Months Ended June 30, 2019	Change $	Change %	Six Months Ended June 30, 2020	Six Months Ended June 30, 2019	Change $	Change %
Cost of revenue:								
Platform	$ 106,324	$ 57,980	$ 48,344	83%	$ 208,260	$ 98,344	$ 109,916	112%
Player	102,913	77,912	25,001	32%	180,642	143,319	37,323	26%
Total Cost of Revenue	$ 209,237	$ 135,892	$ 73,345	54%	$ 388,902	$ 241,663	$ 147,239	61%
Gross profit:								
Platform	$ 138,453	$ 109,702	$ 28,751	26%	$ 269,074	$ 203,491	$ 65,583	32%
Player	8,383	4,507	3,876	86%	18,863	11,609	7,254	62%
Total Gross Profit	$ 146,836	$ 114,209	$ 32,627	29%	$ 287,937	$ 215,100	$ 72,837	34%

Platform

Cost of platform revenue increased by $48.3 million, or 83%, during the three months ended June 30, 2020 as compared to the three months ended June 30, 2019. This increase in absolute dollars is a result of higher advertising costs including inventory acquisition, data and ad serving, content licensing fees and credit card processing fees totaling $41.2 million, as well as a $7.6 million increase in amortization of acquired intangibles and allocated personnel and operational overhead costs.

Cost of platform revenue increased by $109.9 million, or 112%, during the six months ended June 30, 2020 as compared to the six months ended June 30, 2019. This increase in absolute dollars is a result of higher advertising costs including inventory acquisition, data and ad serving, content related costs such as licensing fees, premium content and credit card processing fees totaling $95.2 million, as well as a $14.8 million increase in amortization of acquired intangibles, allocated personnel and operational overhead costs.

Gross profit on platform revenue increased by $28.8 million, or 26%, during the three months ended June 30, 2020 as compared to the three months ended June 30, 2019, primarily driven by the overall growth in our platform revenue.

Gross profit on platform revenue increased by $65.6 million, or 32%, during the six months ended June 30, 2020 as compared to the six months ended June 30, 2019, primarily driven by the overall growth in our platform revenue.

Player

Cost of player revenue increased by $25.0 million, or 32%, during the three months ended June 30, 2020 as compared to the three months ended June 30, 2019. The manufacturing cost of players increased by $14.5 million due to the volume increase of units sold, and freight expenses increased by $6.7 million as a result of additional costs incurred to expedite inventory supply to meet higher demand, and $3.8 million of packaging and other operational overhead.

Cost of player revenue increased by $37.3 million, or 26%, during the six months ended June 30, 2020 as compared to the six months ended June 30, 2019. The manufacturing cost of players increased by $22.7 million due to the volume increase of units sold, and freight expenses increased by $8.6 million as a result of additional costs incurred to expedite inventory supply to meet higher demand, and $6.0 million in packaging costs and other operational overhead.

Gross profit on player sales increased by $3.9 million, or 86%, during the three months ended June 30, 2020 as compared to the three months ended June 30, 2019 primarily driven by growth in sales of our player products.

Gross profit on player sales increased by $7.3 million, or 62%, during the six months ended June 30, 2020 as compared to the six months ended June 30, 2019 primarily driven by growth in sales of our player products.

Operating Expenses

	Three Months Ended				Six Months Ended			
	June 30, 2020	June 30, 2019	Change $	Change %	June 30, 2020	June 30, 2019	Change $	Change %
(in thousands, except percentages)								
Research and development	$ 84,387	$ 61,994	$ 22,393	36%	$ 172,665	$ 117,732	$ 54,933	47%
Sales and marketing	64,164	36,568	27,596	75%	132,412	70,375	62,037	88%
General and administrative	40,494	26,033	14,461	56%	80,234	48,119	32,115	67%
Total Operating Expenses	$ 189,045	$ 124,595	$ 64,450	52%	$ 385,311	$ 236,226	$ 149,085	63%

Research and Development

Research and development expenses increased by $22.4 million, or 36%, during the three months ended June 30, 2020 as compared to the three months ended June 30, 2019. The increase was primarily due to increases in personnel-related costs of $16.2 million due to the growth in engineering headcount and related stock-based compensation, higher professional service and consulting fees of $6.4 million, higher allocated facilities costs of $3.3 million offset by allocations to platform and player overhead.

Research and development expenses increased by $54.9 million, or 47%, during the six months ended June 30, 2020 as compared to the six months ended June 30, 2019. The increase was primarily due to increases in personnel-related costs of $36.8 million due to the growth in engineering headcount and related stock-based compensation, higher professional service and consulting fees of $14.0 million, higher allocated facilities costs of $10.2 million offset by allocations to platform and player overhead.

We expect research and development expense to increase in absolute dollars as we continue to invest in the development of our platform to support additional features and functions, player and TV products, advertising products and other platform services.

Sales and Marketing

Sales and marketing expenses increased by $27.6 million, or 75%, during the three months ended June 30, 2020 as compared to the three months ended June 30, 2019. The increase was primarily due to higher personnel-related costs of $15.2 million related to increased headcount and related stock-based compensation in sales and sales support, product management, marketing and business analytics to support efforts to grow our business. Other sales and marketing expenses include an increase of $7.7 million mainly due to an increase in marketing, retail and merchandising costs, higher facilities costs of $3.3 million and an increase in other expenses of $1.5 million primarily related to higher costs of consulting services, higher amortization of acquired intangible assets, partially offset by a decrease in travel expenses due to the COVID-19 pandemic.

Sales and marketing expenses increased by $62.0 million, or 88%, during the six months ended June 30, 2020 as compared to the six months ended June 30, 2019. The increase was primarily due to higher personnel-related costs of $32.4 million related to increased headcount and related stock-based compensation in sales and sales support, product management, marketing and business analytics to support efforts to grow our business. Other sales and marketing expenses include an increase of $15.5 million mainly due to increase in marketing, retail and merchandising costs, higher facilities costs of $8.8 million and an increase in other expenses of $5.3 million primarily related to higher costs of consulting services, higher amortization of acquired intangible assets, partially offset by a decrease in travel expenses due to the COVID-19 pandemic.

We expect sales and marketing expenses to increase in absolute dollars in future periods as we focus on growing active accounts, player and platform revenue, and expanding our business internationally.

General and Administrative

General and administrative expenses increased by $14.5 million, or 56%, during the three months ended June 30, 2020 as compared to the three months ended June 30, 2019. The increase was primarily due to higher personnel-related costs of $5.6 million as a result of increased headcount and related stock-based compensation, $6.6 million primarily related to increased legal and other outside consulting and professional service fees, and an increase in other expenses of $2.2 million that includes facilities costs, depreciation expense and offset by allocations of overhead to other functions and decrease in travel expenses due to the COVID-19 pandemic.

General and administrative expenses increased by $32.1 million, or 67%, during the six months ended June 30, 2020 as compared to the six months ended June 30, 2019. The increase was primarily due to higher personnel-related costs of $14.1 million as a result of increased headcount and related stock-based compensation, $11.6 million related to increased legal, consulting and professional service fees, an increase of $2.8 million in allowance for credit losses and an increase of $3.6 million that includes various corporate expenses, allocation of facility costs and overhead offset by a decrease in travel expenses due to the COVID-19 pandemic.

We expect to continue to invest in corporate infrastructure to support growth. We expect general and administrative expenses to increase in absolute dollars in future periods.

Other Income (Expense), Net

	Three Months Ended				Six Months Ended			
	June 30, 2020	**June 30, 2019**	**Change $**	**Change %**	**June 30, 2020**	**June 30, 2019**	**Change $**	**Change %**
(in thousands, except percentages)								
Interest expense	$ (1,034)	$ (571)	$ (463)	81%	$ (1,897)	$ (669)	$ (1,228)	184%
Other income, net	557	1,240	(683)	(55)%	1,818	2,207	(389)	(18)%
Total Other Income (Expense), Net	$ (477)	$ 669	$ (1,146)	(171)%	$ (79)	$ 1,538	$ (1,617)	(105)%

Total other income (expense), net, decreased by $1.1 million during the three months ended June 30, 2020 as compared to the three months ended June 30, 2019 primarily due to an increase in interest expense related to the Credit Agreement and amortization of deferred debt costs and reduction in interest income due to lower interest rates in the second quarter of 2020 due to the COVID-19 pandemic.

Total other income (expense), net, decreased by $1.6 million during the six months ended June 30, 2020 as compared to the six months ended June 30, 2019 primarily due to an increase in interest expense related to the Credit Agreement and amortization of deferred debt costs.

Income Tax (Benefit) Expense

	Three Months Ended				Six Months Ended			
	June 30, 2020	June 30, 2019	Change $	Change %	June 30, 2020	June 30, 2019	Change $	Change %
(in thousands, except percentages)								
Income tax (benefit) expense	$ 462	$ (384)	$ 846	(220)%	$ 307	$ (523)	$ 830	(159)%

Income tax (benefit) expense arises from foreign income taxes and state minimum income taxes in the United States.

Liquidity and Capital Resources

As of June 30, 2020, we had cash and cash equivalents of $885.8 million. Our primary source of liquidity is cash generated through operating and financing activities and our borrowings under the Credit Agreement. Our primary uses of cash include operating expenses such as personnel-related expenses, consultants and professional services, and investments in capital spending. Our future capital requirements may vary materially from those currently planned and will depend on many factors including our growth rate and the continuing market acceptance of our advertising platform, operating system and technology and players along with the timing and effort related to the introduction of new platform features, players, hiring of experienced personnel, the expansion of sales and marketing activities, as well as overall economic conditions. In 2018 and 2019, we entered into lease agreements for our new corporate headquarters, as well as other office locations. We incurred material expenses beginning in 2019 and expect to continue to incur material expenses in 2020 and future years for facility and related building costs. We completed the acquisition of dataxu in November 2019 for a total purchase consideration of $147.3 million, which consisted of $77.6 million in cash and $69.7 million for the fair value of our 571,459 shares of Class A common stock. We may contemplate additional merger and acquisition activity that could materially impact our liquidity and capital resource position. However, we believe that our existing cash balances and cash flow from operations will be sufficient to fund our working capital and meet our anticipated cash needs for the foreseeable future.

As of June 30, 2020, approximately 1% of our cash was held outside the United States. These amounts were primarily held in Europe and are utilized to fund our foreign operations. The amount of unremitted earnings related to our foreign subsidiaries is not material.

Senior Secured Term Loan A and Revolving Credit Facilities

On February 19, 2019 (the “Original Closing Date”), we entered into a Credit Agreement (the “Existing Credit Agreement”) with Morgan Stanley Senior Funding, Inc. (“MSSF”). On May 3, 2019, (the “Closing Date”), the Existing Credit Agreement was amended pursuant to an Incremental Assumption and Amendment No. 1 (the “Amendment” and the Existing Credit Agreement as amended by the Amendment, the “Credit Agreement”). On the Original Closing Date, we terminated the Restated 2014 LSA.

The Credit Agreement provides for (i) a four-year revolving credit facility in the aggregate principal amount of up to $100.0 million (the “Revolving Credit Facility”), (ii) a four-year delayed draw term loan A facility in the aggregate principal amount of up to $100.0 million (the “Term Loan A Facility”) and (iii) an uncommitted incremental facility, subject to the satisfaction of certain financial and other conditions, in the amount of up to (v) $50.0 million, plus (w) 1.0x of our consolidated EBITDA for the most recently completed four fiscal quarter period, plus (x) an additional amount at our discretion, so long as, on a pro forma basis at the time of incurrence, our secured leverage ratio does not exceed 1.50 to 1.00, plus (y) voluntary prepayments of the Revolving Credit Facility and Term Loan A Facility to the extent accompanied by concurrent reductions to the applicable Credit Facility (together with the Revolving Credit Facility and the Term Loan A Facility, collectively, the “Credit Facility”).

On November 18, 2019, we drew from the Term Loan A facility in the aggregate principal amount of $100.0 million. In March 2020, we borrowed the available balance of $69.3 million of Revolving Credit Facility. For both borrowings, we elected a Eurodollar borrowing with interest at a rate equal to the adjusted one-month LIBOR rate plus an applicable margin of 1.75% based on our secured leverage ratio. In May 2020, we repaid the outstanding balance on the Revolving Credit Facility.

Loans under the Term Loan A Facility will amortize in equal quarterly installments beginning March 31, 2020, in an aggregate annual amount equal to (i) on or prior to December 31, 2021, 1.25% of the drawn principal amount of the Term Loan Facility or $1.25 million and (ii) thereafter, 2.50% of the drawn principal amount of the Term Loan Facility or $2.5 million, with the remaining balance payable on the maturity date of the Term Loan A Facility in February 2023. The Revolving Credit Facility may be borrowed, repaid and reborrowed until the fourth anniversary of the Closing Date in February 2023, at which time all outstanding balances of the Revolving Credit Facility are due to be repaid.

We had outstanding letters of credit of $29.8 million and $30.7 million as of June 30, 2020 and December 31, 2019, respectively, against the Revolving Credit Facility.

Our obligations under the Credit Agreement are secured by substantially all of our assets. In the future, certain of our direct and indirect subsidiaries may be required to guarantee the Credit Agreement. We may prepay, and in circumstances are required to prepay, loans under the Credit Agreement without payment of a premium. The Credit Agreement contains customary representations and warranties, customary affirmative and negative covenants, a financial covenant that is tested quarterly and requires us to maintain a certain adjusted quick ratio of at least 1.00 to 1.00, and customary events of default.

As of June 30, 2020, we were in compliance with all of the covenants of the Credit Agreement.

Cash Flows

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

	Six Months Ended	
	June 30, 2020	June 30, 2019
Consolidated Statements of Cash Flows Data:		
Cash flows provided by operating activities	$ 80,096	$ 14,034
Cash flows provided by (used in) investing activities	(63,051)	8,274
Cash flows provided by financing activities	352,986	198,505

Operating Activities

Our operating activities provided cash of $80.1 million for the six months ended June 30, 2020. Our net loss of $97.8 million for the six months ended June 30, 2020 was adjusted by non-cash charges of $109.6 million comprising mainly of $60.4 million of stock-based compensation, $17.2 million of depreciation and amortization primarily on property and equipment and intangible assets, $15.9 million of amortization of operating lease right-of-use assets, $12.2 million of amortization of content assets and $3.5 million of provision for doubtful accounts. The changes in our operating assets and liabilities provided cash of $68.2 million comprised of inflows of $21.4 million from a decrease in accounts receivable as a result of higher collections in the first quarter of 2020 from holiday revenue recorded in 2019, $12.7 million from an increase in operating lease liabilities, $27.2 million from an increase in accounts payable and accrued liabilities due to timing of payments, increased developer payables, and overall growth in the volume of business, $4.7 million from a decrease in inventory balances, $6.0 million from an increase in deferred revenue, and $2.1 million from a decrease in other non-current assets. These inflows were partially offset by cash outflows of $5.2 million from an increase in prepaid and other current assets due to an increase in prepaid capital expenditure for new facilities, and $0.6 million from a decrease in other long-term liabilities.

Our operating activities provided cash of $14.0 million for the six months ended June 30, 2019. Our net loss of $19.1 million for the six months ended June 30, 2019 was adjusted by non-cash charges of $50.9 million comprising mainly of $36.5 million of stock-based compensation, $7.7 million of amortization of operating lease right-of-use assets, $5.7 million of depreciation and amortization primarily on property and equipment and $0.8 million of amortization of content assets. The changes in our operating assets and liabilities used cash of $17.8 million comprised of outflows of $21.0 million from an increase in accounts receivable as a result of increased revenue, $14.6 million from a decrease in deferred revenue, $5.3 million from an increase in prepaid and other current assets due to an increase in furniture deposits for our new headquarters, $4.4 million from payments related to operating lease liabilities, and $3.9 million from an increase in inventory balances. These outflows were partially offset by cash inflows of $31.4 million from an increase in accounts payable and accrued liabilities due to timing of payments and increased developer payables.

Investing Activities

Our investing activities used cash of $63.1 million for the six months ended June 30, 2020. The cash used primarily comprised of $64.1 million for the purchase of property and equipment, which primarily related to expenditures on leasehold improvements related to expanding our facilities and other capital investments partially offset by $1.1 million of cash received from proceeds from the resolution of purchase acquisition contingencies.

Our investing activities provided cash of $8.3 million for the six months ended June 30, 2019. The cash was received mainly from the sales/maturities of short-term investments amounting to $43.8 million, partially offset by $23.2 million for the purchase of property and equipment, which primarily related to expenditures on leasehold improvements related to expanding our facilities and other capital investments, and $12.4 million for the purchase of short-term investments.

Financing Activities

Our financing activities provided cash of $353.0 million for the six months ended June 30, 2020. The cash was received mainly from net proceeds from the issuance of shares of our Class A common stock through an at-the-market offering amounting to $349.6 million, net of offering costs, proceeds from borrowings amounting to $69.3 million and proceeds from the exercise of employee stock options of $5.9 million. These inflows were partially offset by $71.8 million of repayments made on the Revolving Credit Facility.

Our financing activities provided cash of $198.5 million for the six months ended June 30, 2019. The cash was received mainly from net proceeds from the issuance of shares of our Class A common stock through at-the-market offerings amounting to $179.4 million, net of offering costs and the exercise of employee stock options of $19.1 million.

Off-Balance Sheet Arrangements

During the periods presented, we did not have any off-balance sheet arrangements, as defined by applicable SEC rules and regulations.

Contractual Obligations

Our future minimum payments under our noncancelable contractual obligations were as follows as of June 30, 2020 (in thousands):

	Payments Due by Period				
	Total	Less Than 1 Year	1 – 3 Years	3 – 5 Years	More Than 5 Years
Term Loan A Facility (1)	$ 97,500	5,000	92,500	—	—
Purchase commitments (2)	142,203	142,203	—	—	—
Operating lease obligations (3)	445,420	41,939	134,459	135,738	133,284
Other obligations (4)	37,441	21,444	13,477	2,520	—
Total	$ 722,564	$ 210,586	$ 240,436	$ 138,258	$ 133,284

(1) Represents the principal amount of Term Loan A Facility. For additional information regarding the terms of the debt and interest payable, see Note 9 to the Unaudited Condensed Consolidated Financial Statements in Item 1 of this Quarterly Report on Form 10-Q.
(2) Represents commitments to purchase finished goods from our contract manufacturer and other inventory related items.
(3) Represents future minimum lease payments under operating leases.
(4) Represents commitments included in other non-cancelable arrangements such as content licensing, advertising buys and other platform services.

We rely on an outsourced supplier to manufacture, assemble and test our players and audio devices. Consistent with industry practices, we enter into firm, noncancelable, and unconditional purchase commitments to acquire products through a combination of purchase orders, supplier contracts, and open orders based on projected demand information. Our contract manufacturer sources components and builds our products based on these demand forecasts. Changes to projected demand or in the subsequent sales mix of our products, may result in us being committed to purchase excess inventory to satisfy these commitments.

The contractual commitment amounts in the table above are associated with agreements that are enforceable and legally binding. Obligations under contracts that we can cancel without a significant penalty are not included in the table above.

Critical Accounting Policies and Estimates

Our financial statements are prepared in accordance with generally accepted accounting principles in the United States. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, expenses and related disclosures. These estimates and assumptions are affected by management's application of accounting policies, as well as uncertainty in the current economic environment due to the ongoing COVID-19 pandemic. We evaluate our estimates and assumptions on an ongoing basis.

Except for the accounting policy related to our adoption of ASC 326 related to credit losses and policy election for ASU 2020-04 regarding reference rate reforms, 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.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Interest Rate Fluctuation Risk

Our exposure to interest rate risk relates to the interest income generated by cash, cash equivalents and short-term investments and interest expense on the Credit Agreement. The primary objective of our investment activities is to preserve principal while maximizing income without significantly increasing risk. We do not believe that an increase or decrease in interest rates of 100 basis points would have a material effect on our operating results or financial condition. As of June 30, 2020, borrowings under the Term Loan A Facility totaled $97.5 million with an effective interest rate of 2.07%. If the amount outstanding under our Term Loan A Facility remains at this level for an entire year and interest rates increased or decreased by 100 basis points, our annual interest expense would increase or decrease, respectively, by an additional $1.0 million.

Foreign Currency Exchange Rate Risk

During the six months ended June 30, 2020, there were no material changes to our foreign currency exchange rate risk disclosures as set forth under the heading "Item 7A – Quantitative and Qualitative Disclosures About Market Risk," in Part II of our Annual Report on Form 10-K.

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 defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of the period covered by this quarterly report, our disclosure controls and procedures were, in design and operation, effective at a reasonable assurance level.

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal controls will prevent all errors and all fraud. Any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objective and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

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) and 15d-15(d) of the Exchange Act that occurred during the quarter ended June 30, 2020 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, and investigations in the ordinary course of our business, including claims for infringing patents, copyrights or other intellectual property rights related to our platform and products, or the content distributed through our platform by us or third-party channel developers. Although the results of these proceedings, claims, and investigations cannot be predicted with certainty, we do not believe that the final outcome of any matters that we are currently involved in are reasonably likely to have a material adverse effect on our business, financial condition, or results of operations. Regardless of final outcomes, however, any such proceedings, claims, and investigations may nonetheless impose a significant burden on management and employees and may come with expensive attorney fees or unfavorable preliminary and interim rulings.

Item 1A. Risk Factors

Our business involves significant risks, some of which are described below. You should carefully consider the risks and uncertainties described below, together with all the other information in this Quarterly Report on Form 10-Q, including "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and the related notes. If any of the following risks actually occurs, our business, reputation, financial condition, results of operations, revenue, and future prospects could be harmed. In addition, you should consider the interrelationship and compounding effects of two or more risks occurring simultaneously. Many of the risks and uncertainties described below may be exacerbated by the ongoing COVID-19 pandemic and any worsening of the global business and economic environment as a result. Unless otherwise indicated, references to our business being harmed in these risk factors will include harm to our business, reputation, financial condition, results of operations, revenue, and future prospects. In that event, the market price of our Class A common stock could decline, and you could lose part or all of your investment. The risks facing our business have not changed substantively from those discussed in our Annual Report on Form 10-K, filed with the SEC on March 2, 2020 except for those risks marked with an asterisk (*).

Risks Related to Our Business and Industry

The ongoing COVID-19 pandemic has impacted our business and we are unable to predict the extent to which the pandemic and related effects will continue to impact our business.*

Beginning in the first quarter and continuing into the second quarter of 2020, there has been a widespread global impact from the COVID-19 pandemic, and our business has been, and will continue to be, impacted by the pandemic and any resulting economic consequences. The spread of COVID-19 has caused us to take precautionary measures intended to help minimize the risk of the virus to our employees, including mandatory work-from-home policies, suspending non-essential business travel and canceling physical participation in meetings, events and conferences. We may take further actions as required by government authorities or that we determine are in the best interests of our employees, TV brand partners, content publishers, advertisers, retail and distribution partners, contract manufacturers, services venders and supply chain. There is no certainty that such measures will be sufficient to mitigate the risks posed by the COVID-19 pandemic, and an extended period of remote work arrangements could disrupt our business, introduce business and operational risks, including cybersecurity risks, and could make it more difficult for us to effectively manage our business.

The COVID-19 pandemic and the precautionary measures that we have taken in response have had a mixed impact on our business during the quarters ended March 31, 2020 and June 30, 2020 and into the third quarter of 2020. Since staying-at-home began we have seen an acceleration of growth in both streaming hours, which has moderated since peaking in early in the second quarter, and account activations. In our platform segment, while we have experienced increases in trials of and subscriptions to SVOD content, growth in the consumption of AVOD content, and increased purchases of TVOD content, we also experienced delays in the start of some video advertising campaigns and an increase in advertising campaign cancellations. These delays and cancellations were partially offset by advertisers who moved their advertising campaigns from traditional TV advertising to OTT advertising. During this period, we also have encountered supply chain disruptions related to our players that resulted in elevated air freight costs to replenish inventory and meet increased demand. Additionally, some of our retail partners have had to close or severely limited access to their brick-and-mortar locations, resulting in reduced sale of devices in these locations, and overall advertising budgets have declined. Further, our management team has focused on addressing the impacts of the COVID-19 pandemic on our business, which has required and will continue to require, a significant investment of their time and resources, and has diverted their attention away from other aspects of our business. In light of the COVID-19 pandemic, our management team has taken steps to slow the rate of growth of our operating expenses and capital expenditures. In May 2020, we entered into an Equity Distribution Agreement with Morgan Stanley & Co. LLC and Citigroup Global Markets Inc., as sales agents (the "Equity Distribution Agreement"), pursuant to which we sold 3.0 million shares of our Class A common stock at an average selling price of $117.98 per share, for aggregate gross proceeds of $354.4 million, a portion of which was used to repay $69.3 million that we drew down on our revolving credit facility in March 2020. Our management team will continue to evaluate our investments and initiatives for 2020 as the COVID-19 pandemic continues to evolve.

The extent to which the COVID-19 pandemic ultimately impacts our business will depend on future developments, which are uncertain and cannot be predicted, including, but not limited to, the duration and spread of the outbreak, its severity, the actions taken by governmental authorities to contain the virus or treat its impacts, and how quickly and to what extent economic and operating conditions normalize. For example, we saw an increase in new account activations and streaming hours when staying-at-home began, although streaming hours remain higher than prior to the COVID-19 pandemic the increase in streaming hours has moderated since peaking early in the second quarter. As staying-at-home restrictions are eased consumers may spend less time streaming TV, which could reduce our streaming hours and number of active accounts and also could negatively impact our platform revenue if we experience a decrease in sales of advertising or transactional revenue shares from content publishers. We also may incur significant operating costs and be exposed to increased liability risks as a result of the COVID-19 pandemic, both now and increasingly so once staying-at-home restrictions are lifted and employees begin to return to our offices, such as the cost of collecting additional information (including health and medical information) about our employee, contractors and visitors at our facilities; and testing supplies and personal protective equipment for on-site staff. In addition, with the increase in remote working during the COVID-19 pandemic, we may not be able to maintain the same level of control over the security of our systems or the personal information that we collect, store and process, particularly as cyber attackers appear to increasingly attempt to compromise systems and data in an effort to exploit this pandemic. Even after the COVID-19 pandemic itself has subsided, we may continue to experience impacts to our business as a result of any global economic impact, including as a result of an ongoing recession. For instance, we do not know what impact the ongoing restrictions or changes in consumer shopping patterns may have on traditionally strong sales periods, including Back-to-School, Black Friday and other holidays, and any significant reduction of streaming device sales in these periods would negatively impact our business. Further, a prolonged economic downturn may result in the purchase of fewer streaming devices which could lead to a reduction in account activations and streaming hours, and also could negatively impact our revenue. Our platform business also may continue to be negatively impacted by continued decreases in total advertising spend, if advertising budgets do not shift to OTT advertising or if acquiring content that our users want to watch becomes more difficult or costly for us or our convent partners as the amount of new content decreases due to the COVID-19 pandemic. A prolonged economic downturn could also impact the overall financial condition of our TV brand partners, content publishers, advertisers, retailers, contract manufacturer, services venders and supply chain all of whom we depend on in order to operate our business. As a result, the current level of uncertainty over the economic and operational impacts of the COVID-19 pandemic means the impact on our business cannot be reasonably estimated at this time.

We have incurred operating losses in the past, expect to incur operating losses in the future and may never achieve or maintain profitability.*

We began operations in 2002 and we have experienced net losses and negative cash flows from operations in each year since inception. As of June 30, 2020, we had an accumulated deficit of $412.7 million and for the three months ended June 30, 2020, we experienced a net loss of $43.1 million. We expect our operating expenses to increase in the future as we expand our operations. If our revenue and gross profit do not grow at a greater rate than our operating expenses, we will not be able to achieve and maintain profitability. We expect to incur significant losses in the future for a number of reasons, including without limitation the other risks and uncertainties described herein. Additionally, we may encounter unforeseen operating or legal expenses, difficulties, complications, delays and other factors that may result in losses in future periods. If our expenses exceed our revenue, we may never achieve or maintain profitability and our business may be harmed.

Our quarterly operating results may be volatile and are difficult to predict, and our stock price may decline if we fail to meet the expectations of securities analysts or investors.*

Our revenue, gross profit and other operating results could vary significantly from quarter-to-quarter and year-to-year and may fail to match our past performance due to a variety of factors, including many factors that are outside of our control. Factors that may contribute to the variability of our operating results and cause the market price of our Class A common stock to fluctuate include:

- the entrance of new competitors or competitive products in our market, whether by established or new companies;
- our ability to retain and grow our active account base and increase engagement among new and existing users;
- our ability to maintain effective pricing practices, in response to the competitive markets in which we operate or other macroeconomic factors, such as inflation or increased taxes;
- our revenue mix, which drives gross profit;

- advertiser demand for advertising inventory;
- seasonal, cyclical or other shifts in revenue from advertising or player sales;
- the timing of the launch of new or updated products, channels or features;
- the addition or loss of popular content or channels;
- the ability of retailers to anticipate consumer demand;
- an increase in the manufacturing or component costs of our players or the manufacturing or component costs of our TV brand licensees for Roku TV models;
- delays in delivery of our players or our partners' Roku TV models, or disruptions in our or our licensees' supply or distribution chains, including any disruptions caused by the COVID-19 pandemic; and
- an increase in costs associated with protecting our intellectual property, defending against third-party intellectual property infringement allegations or procuring rights to third-party intellectual property.

Our gross margins vary across our devices and platform offerings. Our player segment revenue has a lower gross margin compared to our platform segment revenue derived through our arrangements with advertising, content distribution, billing, and licensing activities. Gross margins on our players vary across player models and can change over time as a result of product transitions, pricing and configuration changes, component costs, player returns and other cost fluctuations. In addition, our gross margin and operating margin percentages, as well as overall profitability, may be adversely impacted as a result of a shift in device, geographic or sales channel mix, component cost increases, price competition, or the introduction of new streaming devices, including those that have higher cost structures with flat or reduced pricing. We have in the past and may in the future strategically reduce our player gross margin in an effort to increase the number of active accounts and grow our gross profit. As a result, our player segment revenue may not increase as rapidly as it has historically, or at all, and, unless we are able to adequately increase our platform revenue and grow the number of active accounts, we may be unable to grow gross profit and our business will be harmed. If a reduction in gross margin does not result in an increase in our active accounts or increase our platform revenue and gross profit, our financial results may suffer, and our business may be harmed.

If we have difficulty managing our growth in operating expenses, our business could be harmed.

We have experienced significant growth in our research and development, sales and marketing, support services, operations and general and administrative functions in recent years and expect to continue to expand these activities. Our historical growth has placed, and expected future growth will continue to place, significant demands on our management, as well as our financial and operational resources, to:

- manage a larger organization;
- hire more employees, including engineers with relevant skills and experience;
- expand our manufacturing and distribution capacity;
- increase our sales and marketing efforts;
- broaden our customer support capabilities;
- support a larger number of TV brand and service operators;
- implement appropriate operational and financial systems;
- expand internationally; and
- maintain effective financial disclosure controls and procedures.

In addition, due to the continued growth in our headcount, we entered into lease agreements for a new corporate headquarters, which we began to occupy and started to incur material expenses for during 2019.

If we fail to manage our growth effectively, we may not be able to execute our business strategies and our business will be harmed.

TV streaming is highly competitive and many companies, including large technology companies, content owners and aggregators, TV brands and service operators, are actively focusing on this industry. If we fail to differentiate ourselves and compete successfully with these companies, it will be difficult for us to attract and retain users and our business will be harmed.*

TV streaming is highly competitive and global. Our success depends in part on attracting and retaining users on, and effective monetization of, our streaming platform. To attract and retain users, we need to be able to respond efficiently to changes in consumer tastes and preferences and to offer our users access to the content they love on terms that they accept. Effective monetization requires us to continue to update the features and functionality of our streaming platform for users, content publishers and advertisers. We also must effectively support popular sources of streaming content, such as Amazon

Prime Video, Disney+, Hulu, Netflix and YouTube, and respond rapidly to actual and anticipated market trends in the TV streaming industry.

Companies such as Amazon, Apple and Google offer TV streaming devices that compete with our streaming players and Roku TV models. In addition, Google licenses its Android operating system software for integration into smart TVs and service provider set-top boxes and Amazon licenses its operating system software for integration into smart TVs. These companies have greater financial resources than we do and can subsidize the cost of their streaming devices in order to promote their other products and services, which could make it harder for us to acquire new users, retain existing users and increase streaming hours. These companies could also implement standards or technology that are not compatible with our products or that provide a better streaming experience. These companies also promote their brands through traditional forms of advertising, such as TV commercials, as well as digital advertising or website product placement, and have greater resources to devote to such efforts than we do.

In addition, many TV brands offer their own TV streaming solutions within their TVs. Other devices, such as game consoles and many DVD and Blu-ray players, also incorporate TV streaming functionality. Similarly, some service operators offer TV streaming applications as part of their cable service plans and can leverage their existing consumer bases, installation networks, broadband delivery networks and name recognition to gain traction in the TV streaming market. If consumers of TV streaming content prefer these alternative products to our streaming players and our partners' Roku TV models, we may not be able to achieve our expected growth in revenue, gross profit or ARPU.

In July 2018, we introduced our Roku TV Wireless Speakers, designed specifically for use with Roku TV models, and in September 2019, we launched our Roku Smart Soundbar and Roku Wireless Subwoofer. As a result of these developments, we may face additional competition from makers of TV audio speakers and soundbars, as well as makers of other TV peripheral devices. While our audio products have not generated significant revenue, if these products do not operate as designed or do not enhance the Roku TV or other viewing experience as we intend, our users' overall viewing experience may be diminished, and this may impact the overall demand for Roku TV models or our other products.

We expect competition in TV streaming from the large technology companies and service operators described above, as well as new and growing companies, to increase in the future. This increased competition could result in pricing pressure, lower revenue and gross profit or the failure of our players, Roku TV models or our platform to gain or maintain broad market acceptance. To remain competitive and maintain our position as a leading TV streaming platform we need to continuously invest in product development, marketing, service and support and device distribution infrastructure. In addition, evolving TV standards such as 4K, 8K, HDR and unknown future developments may require further investments in the development of our players, Roku TV models, and our platform. We may not have sufficient resources to continue to make the investments needed to maintain our competitive position. In addition, most of our competitors have longer operating histories, greater name recognition, larger customer bases and significantly greater financial, technical, sales, marketing and other resources than us, which provide them with advantages in developing, marketing or servicing new products and offerings. As a result, they may be able to respond more quickly to market demand, devote greater resources to the development, promotion and sales of their products or the distribution of their content, and influence market acceptance of their products better than we can. These competitors may also be able to adapt more quickly to new or emerging technologies or standards and may be able to deliver products and services at a lower cost. Increased competition could reduce our sales volume, revenue and operating margins, increase our operating costs, harm our competitive position and otherwise harm our business.

We also compete for video viewing hours with mobile platforms (phones and tablets), and users may prefer to view streaming content on such devices. Increased use of mobile or other platforms for TV streaming could adversely impact the growth of our streaming hours, harm our competitive position and otherwise harm our business.

We operate in an evolving industry, which makes it difficult to evaluate our business and prospects. If TV streaming develops more slowly than we expect, our operating results and growth prospects could be harmed. In addition, our future growth depends on the acceptance and growth of digital advertising and digital advertising platforms.*

TV streaming is a rapidly evolving industry, making our business and prospects difficult to evaluate. The growth and profitability of this industry and the level of demand and market acceptance for our products and streaming platform are subject to a high degree of uncertainty. We believe that the continued growth of streaming as an entertainment alternative will depend on the availability and growth of cost-effective broadband internet access, the quality of broadband content delivery, the quality and reliability of new devices and technology, the cost for users relative to other sources of content, as well as the quality and breadth of content that is delivered across streaming platforms. These technologies, products and content offerings continue to emerge and evolve. In addition, many advertisers continue to devote a substantial portion of their advertising budgets to traditional advertising, such as linear TV, radio and print. The future growth of our business depends on the growth of OTT advertising, and on advertisers increasing their spend on advertising on our platform. We cannot be certain that they will do so. If advertisers, or their agency relationships, do not perceive meaningful benefits of OTT advertising, the market may develop more slowly than we expect, which could adversely impact our operating results and our ability to grow our business.

We may not be successful in our efforts to further monetize our streaming platform, which may harm our business.*

Our business model depends on our ability to generate platform revenue from advertisers and content publishers. We generate platform revenue primarily from video advertising and audience development campaigns that run across our streaming platform and from content distribution services. As such, we are seeking to expand our user base and increase the number of hours that are streamed across our platform in an effort to create additional platform revenue opportunities. As our user base grows and as we increase the amount of content offered and streamed across our streaming platform, we must effectively monetize our expanding user base and streaming activity. The total number of streaming hours, however, does not correlate with platform revenue on a period-by-period basis, primarily because we do not monetize every hour streamed on our streaming platform. Moreover, streaming hours on our platform are measured whenever a player or a Roku TV is streaming content, whether a viewer is actively watching or not. For example, if a player is connected to a TV, and the viewer turns off the TV, steps away or falls asleep and does not stop or pause the player then the particular streaming channel may continue to play content for a period of time determined by the streaming channel. We believe that this also occurs across a wide variety of non-Roku streaming devices and other set-top boxes. During the third quarter of 2019, we began rolling out a new Roku OS feature that is designed to identify when content has been continuously streaming on a channel for an extended period of time without user interaction. This feature periodically prompts the user to confirm that they are still watching the selected channel and closes the channel if the user does not respond affirmatively. We believe that implementing this new feature across the Roku platform will benefit us, our customers, channel partners and advertisers. Some of our leading channel partners, including Netflix, have already implemented similar features within their channels. This new Roku OS feature, which now has been rolled out to our entire installed base, supplements these channel features. We do not expect the rollout of this feature to have a material impact on our future financial performance.

Our ability to deliver more relevant advertisements to our users and to increase our platform's value to advertisers and content publishers depends on the collection of user engagement data, which may be restricted or prevented by a number of factors. Users may decide to opt out or restrict our ability to collect personal viewing data or to provide them with more relevant advertisements. Content publishers may also refuse to allow us to collect data regarding user engagement or refuse to implement mechanisms we request to ensure compliance with our legal obligations or technical requirements. For example, we are not able to fully utilize program level viewing data from many of our most popular channels to improve the relevancy of advertisements provided to our users. Other channels available on our platform, such as Amazon Prime Video, Apple TV+, Hulu and YouTube, are focused on increasing user engagement and time spent within their channel by allowing users to purchase additional content and streaming services within their channels. In addition, we do not currently monetize content provided on non-certified channels, which are not displayed in the Roku channel store and must be added manually by the user, on our streaming platform. If our users spend most of their time within particular channels where we have limited or no ability to place advertisements or leverage user information, or users opt out from our ability to collect data for use in providing more relevant advertisements, we may not be able to achieve our expected growth in platform revenue or gross profit. If we are unable to further monetize our streaming platform, our business may be harmed.

In order to materially increase the monetization of our streaming platform through the sale of video advertising, we will need our users to stream significantly more ad-supported content. Our efforts to monetize our streaming platform through ad-supported content are still developing and may not continue to grow as we expect. Further, while we have experienced, and expect to continue to experience, growth in our revenue from advertising, our efforts to monetize our streaming platform through the distribution of AVOD content are still developing and our advertising revenue may not grow as we expect. This means of monetization will require us to continue to attract advertising dollars to our streaming platform as well as deliver AVOD content that appeals to users. Accordingly, there can be no assurance that we will be successful in monetizing our streaming platform through the distribution of ad-supported content.

If we are unable to attract advertisers or advertising agencies to our OneView Ad Platform or if we are not successful in running a demand-side advertising platform, our business may be harmed.*

We recently launched the OneView Ad Platform, a demand-side platform through which advertisers and advertising agencies can programmatically purchase and manage their OTT, desktop and mobile advertising campaigns. OneView leverages the demand side platform ("DSP") developed by dataxu, which we acquired in November 2019, and the reach, inventory and capabilities of our proprietary advertising products and services. The market for programmatic OTT ad buying is an emerging market, and our current and potential advertisers and advertising agencies may not shift to programmatic ad buying from other buying methods as quickly as we expect or at all. If the market for programmatic ad buying deteriorates or develops more slowly than we expect, our advertisers and advertising agencies may not use OneView or we may not attract prospective advertisers or advertising agencies to OneView, and our business could be harmed. In addition, we have limited experience running a DSP and if OneView does not have the functionality or services expected by advertisers or advertising agencies, we may not be able to attract their advertising spend to OneView or our existing customers may not maintain or increase their spend on OneView. If we fail to adapt to our rapidly changing industry or to our customers evolving needs, advertisers and advertising agencies will not adopt OneView and our business may be harmed. We also may not be able to compete effectively with more established DSPs or be able to adapt to changes or trends in programmatic advertising, which would harm our ability to grow our advertising revenue and harm our business.

We depend on a small number of content publishers for a majority of our streaming hours, and if we fail to maintain these relationships, our business could be harmed.*

Historically, a small number of content publishers have accounted for a significant portion of the hours streamed on our platform. In the quarter ended June 30, 2020, the top three streaming services represented over 50% of all hours streamed in the period. If, for any reason, we cease distributing channels that have historically streamed a large percentage of the aggregate streaming hours on our platform, our streaming hours, active accounts or streaming device sales may be adversely affected, and our business may be harmed.

Most of our agreements with content publishers are not long term and can be terminated by the content publishers under certain circumstances. Any disruption in the renewal of such agreements may result in the removal of certain channels from our streaming platform and may harm our active account growth and engagement.*

We enter into agreements with all our content publishers, which have varying terms and conditions, including expiration dates. Our agreements with content publishers generally have terms of one to three years and can be terminated before the end of the term by the content publisher under certain circumstances, such as if we materially breach the agreement, become insolvent, enter bankruptcy, commit fraud or fail to adhere to the content publishers' security or other platform certification requirements. Upon expiration of these agreements, we are required to re-negotiate and renew them in order to continue providing content from these content publishers on our streaming platform. We have in the past been unable, and in the future may not be able, to reach a satisfactory agreement with certain content publishers before our existing agreements have expired. If we are unable to renew such agreements on a timely basis on mutually agreeable terms, we may be required to temporarily or permanently remove certain channels from our streaming platform. The loss of such channels from our streaming platform for any period of time may harm our business. More broadly, if we fail to maintain our relationships with the content publishers on terms favorable to us, or at all, or if these content publishers face problems in delivering their content across our platform, we may lose channel partners or users and our business may be harmed.

If popular content is not available on our platform, we may fail to retain existing users and attract new users.

We must continuously maintain existing relationships and identify and establish new relationships with content publishers to provide popular content. In order to remain competitive, we must consistently meet user demand for popular streaming channels and content; particularly as we launch new players, new Roku TV models are introduced, or we enter new markets, including international markets. If we are not successful in helping our content publishers launch and maintain streaming channels that attract and retain a significant number of users on our streaming platform or if we are not able to do so in a cost-effective manner, our business will be harmed. Our ability to successfully help content publishers maintain and expand their channel offerings on a cost-effective basis largely depends on our ability to:

- effectively market new streaming channels and enhancements to our existing streaming channels;
- minimize launch delays of new and updated streaming channels; and
- minimize streaming platform downtime and other technical difficulties.

In addition, if service operators, including pay TV providers, refuse to grant our users access to stream certain channels or only make content available on devices they prefer, our ability to offer a broad selection of popular streaming channels or content may be limited.

If we fail to help our content publishers maintain and expand their channel offerings or their channels are not available, our business may be harmed.

Our growth will depend in part on our ability to develop relationships with TV brands and, to a lesser extent, service operators.

We developed, and intend to continue to develop, relationships with TV brands and, to a lesser extent, service operators in both the United States and international markets. Our licensing arrangements are complex and time-consuming to negotiate and complete. Our current and potential partners include TV brands, cable and satellite companies and telecommunication providers. Under these license arrangements, we generally have limited control over the amount and timing of resources these entities dedicate to the relationship. If our TV brand or service operator partners fail to meet their forecasts for distributing licensed streaming devices, our business may be harmed.

We license the Roku OS and our smart TV hardware reference designs to certain TV brands to manufacture co-branded smart TVs. The primary economic benefits that we derive from these license arrangements have been and will likely continue to be indirect, primarily from growing our active accounts and increasing streaming hours on our platform. We have not received, nor do we expect to receive, significant license revenue from these arrangements in the near term, but we expect to incur expenses in connection with these commercial agreements. If these arrangements do not result in increased active accounts or streaming hours, our business may be harmed. The loss of a relationship with a TV brand or service operator could harm our results of operations, damage our reputation, increase pricing and promotional pressures from other partners and distribution channels, or increase our marketing costs. If we are not successful in maintaining existing and creating new relationships with any of these third parties, or if we encounter technological, content licensing or other impediments to our development of these relationships, our ability to grow our business could be adversely impacted.

We and our Roku TV brand partners depend on our retail sales channels to effectively market and sell our players and Roku TV models, and if we or our partners fail to maintain and expand effective retail sales channels, we could experience lower player or Roku TV sales.*

To continue to increase our active accounts, we must maintain and expand our retail sales channels. The majority of our players and our TV brand partners' Roku TV models are sold through traditional brick and mortar retailers, such as Best Buy, Target and Walmart, including their online sales platforms, and online retailers such as Amazon. To a lesser extent, we sell players directly through our website and internationally through distributors. For the three months ended June 30, 2020, Amazon, Best Buy and Walmart in total accounted for 64% of our player segment revenue. These three retailers collectively accounted for 72% and 68% of our player revenue for the years ended December 31, 2019 and 2018, respectively. These retailers and our international distributors also sell products offered by our competitors. We have no minimum purchase commitments or long-term contracts with any of these retailers or distributors. If one or several retailers or distributors were to discontinue selling our players or TV brands' Roku TV models, choose not to prominently display those devices in their stores or on their websites, or close or severely limit access to their brick and mortar locations because of shutdowns related to the COVID-19 pandemic, the volume of our streaming devices sold could decrease, which would harm our business. For example, in April 2018, Amazon and Best Buy announced a partnership whereby two Best Buy controlled smart TV brands will exclusively utilize Amazon’s operating system, and such TVs will be sold by Best Buy and Amazon. Although, to date, this arrangement has not limited our TV brand partners’ ability to sell on either Amazon or at Best Buy, if our existing TV brands choose to work exclusively with, or divert a significant portion of their business with us to, other operating system developers, this may impact our ability to license the Roku OS and our smart TV hardware reference design to TV brands and our ability to continue to grow active accounts. Traditional retailers have limited shelf and end cap space in their stores and limited promotional budgets, and online retailers have limited prime website product placement space. Competition is intense for these resources, and a competitor with more extensive product lines and stronger brand identity, such as Amazon or Google, possesses greater bargaining power with retailers. In addition, one of our online retailers, Amazon, sells its own competitive streaming devices and is able to market and promote these products more prominently on its website, and could refuse to offer or promote our devices on its website. Any reduction in our ability to place and promote our devices, or increased competition for available shelf or website placement, could require us to increase our marketing expenditures to maintain our product visibility or result in reduced visibility for our products, which may harm our business. In particular, the availability of product placement during peak retail periods, such as the holiday season, is critical to our revenue growth, and if we are unable to effectively sell our devices during these periods, our business would be harmed.

We may be unable to successfully expand our international operations and our international expansion plans, if implemented, will subject us to a variety of risks that may harm our business.*

We currently generate the vast majority of our revenue in the United States and have limited experience marketing, selling, licensing and supporting our devices and monetizing our streaming platform outside the United States. In addition, we have limited experience managing the administrative aspects of a global organization. While we intend to continue to explore opportunities to expand our business in international markets in which we see compelling opportunities, we may not be able to create or maintain international market demand for our devices and streaming platform.

In the course of expanding our international operations and operating overseas, in addition to the risks we face in the United States, we will be subject to a variety of risks that could adversely affect our business, including:

- differing regulatory requirements, including country-specific data privacy and security laws and regulations, consumer protection laws and regulations, tax laws, trade laws, labor regulations, tariffs, export quotas, custom duties on cross-border movements of goods or data flows, extension of limits on TV advertising minutes to OTT advertising, local content requirements, or other trade restrictions;
- compliance with laws such as the Foreign Corrupt Practices Act, UK Bribery Act and other anti-corruption laws, export controls and economic sanctions, and local laws prohibiting corrupt payments to government officials;
- compliance with various privacy, data transfer, data protection, accessibility, consumer protection and child protection laws in the EU and other international markets that we operate in;
- slower adoption and acceptance of streaming devices and services in other countries;
- competition with other devices that consumers may use to stream TV or existing local traditional pay TV services and products, including those provided by incumbent pay TV service providers;
- greater difficulty supporting and localizing our streaming devices and streaming platform, including delivering support and training documentation in languages other than English;
- our ability to deliver or provide access to popular streaming channels to users in certain international markets;
- different or unique competitive pressures as a result of, among other things, the presence of local consumer electronics companies and the greater availability of free content on over-the-air channels in certain countries;
- availability of reliable broadband connectivity and wide area networks in areas targeted for expansion;
- challenges inherent in efficiently staffing and managing an increased number of employees over large geographic distances, including the need to implement appropriate systems, policies, compensation and benefits, and compliance programs;
- difficulties in understanding and complying with local laws, regulations and customs in foreign jurisdictions;
- differing legal and court systems, including limited or unfavorable intellectual property protection;
- unstable political and economic conditions whatever the cause, including pandemics, failure of the United Kingdom and the European Union (“EU”) to reach agreement on an economic arrangement to be implemented following the United Kingdom’s withdrawal from the EU (commonly referred to as “Brexit”) leading to an abrupt United Kingdom withdrawal, tariffs, trade wars, local or global recessions, or long-term environmental risks;
- international political or social unrest or economic instability, including US.-China tensions, and other political tensions between countries in which we do business or which sources for Roku products;
- adverse tax consequences such as those related to changes in tax laws or tax rates or their interpretations could impact our judgment in determining our tax provision and effective tax rate;
- the imposition of customs duties on cross-border data flows for streaming services, which are currently prohibited under the WTO’s e-commerce moratorium, but could be permitted if certain WTO Members continue to oppose extension of the moratorium when it is considered at the WTO’s MC-12 Ministerial Meeting, which was originally scheduled for June 2020 but has been postponed due to the COVID-19 pandemic and could take place in 2021;
- digital services taxes, which have been imposed or are under consideration by several European and other countries, which would lead to taxes on certain digital services even though the providers would not be subject to tax under existing international tax rules and treaties;
- the COVID-19 pandemic or any other pandemics or epidemics could result in decreased economic activity in certain markets, decreased use of our products, or in our decreased ability to import, export or sell our products to supply such services to existing or new customers in international markets;
- fluctuations in currency exchange rates could impact our revenue and expenses of our international operations and expose us to foreign currency exchange rate risk;
- restrictions on the repatriation of earnings from certain jurisdictions;
- future possible changes in U.S. regulations on exports of U.S. technologies or dealings with certain countries or parties, including expanding export control restrictions on China and Hong Kong; and
- working capital constraints.

If we invest substantial time and resources to expand our international operations and are unable to do so successfully and in a timely manner, our business and financial condition may be harmed.

If we are unable to maintain an adequate supply of quality video ad inventory on our platform or effectively sell our available video ad inventory, our business may be harmed.*

While The Roku Channel serves as a valuable source of video ad inventory for us to sell, we are also dependent on our ability to monetize video ad inventory that we obtain from the publishers of ad-supported channels on our streaming platform. We may fail to attract content publishers that generate a sufficient quantity or quality of ad-supported content hours on our streaming platform and continue to grow supply of quality video ad inventory. Our business model depends on our ability to grow video ad inventory on our streaming platform and sell it to advertisers. Our access to video ad inventory in ad-supported streaming channels on our platform varies greatly among channels; accordingly, we do not have access to all of the video ad inventory on our platform. For certain channels, including YouTube's ad supported channel, we have no access to video ad inventory at this time, and we may not secure access in the future. The amount, quality and cost of video ad inventory available to us can change at any time. For instance, a decline in overall advertising budgets caused by the COVID-19 pandemic may have a negative effect on ad-spend resulting in a lower amount of video ad inventory available to us. If we are unable to grow and maintain a sufficient supply of quality video advertising inventory at reasonable costs to keep up with demand, our business may be harmed.

We operate in a highly competitive advertising industry and we compete for revenue from advertising with other internet streaming platforms and services, as well as traditional media, such as radio, broadcast, cable and satellite TV, and satellite and internet radio. These competitors offer content and other advertising mediums that may be more attractive to advertisers than our streaming platform. These competitors are often very large and have more advertising experience and financial resources than we do, which may adversely affect our ability to compete for advertisers and may result in lower revenue and gross profit from advertising. If we are unable to increase our revenue from advertising by, among other things, continuing to improve our platform's capabilities to further optimize and measure advertisers' campaigns, increase our advertising inventory and expand our advertising sales team and programmatic capabilities, our business and our growth prospects may be harmed. We may not be able to compete effectively or adapt to any such changes or trends, which would harm our ability to grow our advertising revenue and harm our business.

Significant disruptions of our information technology systems or data security incidents could harm our reputation, cause us to modify our business practices and otherwise adversely affect our business and subject us to liability.*

We are increasingly dependent on information technology systems and infrastructure to operate our business. In the ordinary course of our business, we collect, store, process and transmit large amounts of sensitive corporate, personal and other information, including intellectual property, proprietary business information, user payment card information, other user information and other confidential information. It is critical that we do so in a secure manner to maintain the confidentiality, integrity and availability of such information. Our obligations under applicable laws, regulations, contracts, industry standards, self-certifications, and other documentation may include maintaining the confidentiality, integrity and availability of personal information in our possession or control and maintaining reasonable and appropriate security safeguards as part of an information security program. These obligations create potential legal liability, to regulators, our business partners, our users, and other relevant stakeholders and also impact the attractiveness of our subscription service to existing and potential users.

We have outsourced certain elements of our operations (including elements of our information technology infrastructure) to third parties, or may have incorporated technology into our platform, that collects, processes, transmits and stores our users' or others' personal information (such as payment card information) and as a result, we manage a number of third-party vendors who may or could have access to our information technology systems (including our computer networks) or to our confidential information. In addition, many of those third parties in turn subcontract or outsource some of their responsibilities to third parties. As a result, our information technology systems, including the functions of third parties that are involved or have access to those systems, is very large and complex. While all information technology operations are inherently vulnerable to inadvertent or intentional security breaches, incidents, attacks and exposures, the size, complexity, accessibility and distributed nature of our information technology systems, and the large amounts of sensitive or personal information stored on those systems, make such systems potentially vulnerable to unintentional or malicious, internal and external threats on our technology environment. Vulnerabilities can be exploited from inadvertent or intentional actions of our employees, third-party vendors, business partners, or by malicious third parties. Attacks of this nature are increasing in their frequency, levels of persistence, sophistication and intensity, and are being conducted by sophisticated and organized groups and individuals with a wide range of motives (including, but not limited to, industrial espionage) and expertise, including organized criminal groups, "hacktivists," nation states and others. For example, despite our efforts to secure our information technology systems and the data contained in those systems, including any efforts to educate or train our employees, we remain vulnerable to phishing attacks.

Although we have, and may in the future, implement remote working protocols and offer work-issued devices to certain employees, the actions of our employees while working remotely may have a greater effect on the security of our systems and the personal data we process, including by increasing the risk of compromise to our systems or data arising from employees' combined personal and private use of devices, accessing our systems or data using wireless networks that we do not control, or the ability to transmit or store company-controlled data outside of our secured network. These risks have been heightened by the dramatic increase in the numbers of our employees who have been and are continuing to work from home as a result of government guidelines and internal policies that have been put in place in response to the COVID-19 pandemic.

In addition to the threat of unauthorized access or acquisition of sensitive or personal information, other threats could include the deployment of harmful malware, ransomware attacks, denial-of-service attacks, social engineering and other means to affect service reliability and threaten the confidentiality, integrity and availability of information. Some of these external threats may be amplified by the nature of our third-party web hosting, cloud computing, or network-dependent streaming services or suppliers. Our systems likely experience directed attacks on at least a periodic basis that are intended to interrupt our operations; interrupt our users', content publishers' and advertisers' ability to access our platform; extract money from us; and/or obtain our data (including without limitation user or employee personal information or proprietary information). Although we have implemented certain systems, processes, and safeguards intended to protect our information technology systems and data from such threats and mitigate risks to our systems and data, we cannot be certain that threat actors will not have a material impact on our systems or services in the future. Additionally, our third-party vendors or business partners' information technology systems may be vulnerable to similar threats and our business could be affected by those or similar third-party relationships.

We maintain insurance policies to cover certain losses relating to our information technology systems. However, there may be exceptions to our insurance coverage such that our insurance policies may not cover some or all aspects of a security incident. Even where an incident is covered by our insurance, the insurance limits may not cover the costs of complete remediation and redress that we may be faced with in the wake of a security incident. The successful assertion of one or more large claims against us that exceeds our available insurance coverage, or results in changes to our insurance policies (including premium increases or the imposition of large deductible or co-insurance requirements), could have an adverse effect on our business. In addition, we cannot be sure that our existing insurance coverage and coverage for errors and omissions will continue to be available on acceptable terms or that our insurers will not deny coverage as to any future claim. Though it is difficult to determine what harm may directly result from any specific interruption or breach, any failure to maintain performance, reliability, security and availability of our network infrastructure to the satisfaction of our users, business partners, regulators or other relevant stakeholders may harm our reputation and our ability to retain existing users and attract new users. Because of our prominence in the TV streaming industry, we believe we may be a particularly attractive target for threat actors. Our platform also incorporates licensed software from third parties, including open source software, and we may also be vulnerable to attacks that focus on such third-party software. Any attempts by threat actors to disrupt our platform, our streaming devices, website, computer systems or our mobile apps, if successful, could harm our business, subject us to liability, be expensive to remedy, cause harm to our systems and operations and damage our reputation. Efforts to prevent threat actors from entering our computer systems or exploiting vulnerabilities in our devices are expensive to implement and may not be effective in detecting or preventing intrusion or vulnerabilities. Such unauthorized access to our data could damage our reputation and our business and could expose us to the risk of contractual damages, litigation and regulatory fines and penalties that could harm our business. The risk of harm to our business caused by security incidents may also increase as we expand our product and service offerings and as we enter into new markets. Implementing, maintaining, and updating security safeguards requires substantial resources now and will likely be an increasing and substantial cost in the future.

Significant disruptions of our third-party vendors' and/or commercial partners' information technology systems or other similar data security incidents could adversely affect our business operations and/or result in the loss, misappropriation, and/or unauthorized access, use or disclosure of, or the prevention of access to, sensitive or personal information, which could harm our business. In addition, information technology system disruptions, whether from attacks on our technology environment or from computer viruses, natural disasters, terrorism, war and telecommunication and electrical failures, could result in a material disruption of our product development and our business operations.

There is no way of knowing with certainty whether we have experienced any data security incidents that have not been discovered. While we have no reason to believe that we have experienced a data security incident that we have not discovered, attackers have become very sophisticated in the way they conceal their unauthorized access to systems, and many companies that have been attacked are not aware that they have been attacked. Any event that leads to unauthorized access, use or disclosure of personal information, including but not limited to personal information regarding our users, could disrupt our business, harm our reputation, compel us to comply with applicable federal and/or state breach notification laws and foreign law equivalents, subject us to time consuming, distracting and expensive litigation, regulatory investigation and oversight, mandatory corrective action, require us to verify the correctness of database contents, or otherwise subject us to liability under laws, regulations and contractual obligations, including those that protect the privacy and security of personal information. This could result in increased costs to us and result in significant legal and financial exposure and/or reputational harm. For example, in the wake of a data breach involving payment card data, we may be subject to substantial penalties and related enforcement for failure to adhere to the technical or operational security requirements of the Payment Card Industry ("PCI") Data Security Standards ("DSS") imposed by the PCI Council to protect cardholder data. Penalties arising from PCI DSS enforcement are inherently uncertain as penalties may be imposed by various entities within the payment card processing chain without regard to any statutory or universally mandated framework. Such enforcement could threaten our relationship with our banks, card brands we do business with, and our third-party payment processors.

In addition, any failure or perceived failure by us or our vendors or business partners to comply with our privacy, confidentiality or data security-related legal or other obligations to third parties, or any further security incidents or other unauthorized access events that result in the unauthorized access, release or transfer of sensitive information, which could include personal information, may result in governmental investigations, enforcement actions, regulatory fines, litigation, or public statements against us by advocacy groups or others, and could cause third parties, including current and potential partners, to lose trust in us including existing or potential users' perceiving our platform, system or networks as less desirable or we could be subject to claims by third parties that we have breached our privacy- or confidentiality-related obligations, which could materially and adversely affect our business and prospects. There can be no assurance that the limitations of liability in our contracts would be enforceable or adequate or would otherwise protect us from liabilities or damages. Moreover, data security incidents and other inappropriate access can be difficult to detect, and any delay in identifying them may lead to increased harm of the type described above. While we have implemented security measures intended to protect our information technology systems and infrastructure, as well as the personal and proprietary information that we possess or control, there can be no assurance that such measures will successfully prevent service interruptions or further security incidents. Data protection laws around the world often require "reasonable", "appropriate" or "adequate" technical and organizational security measures, and the interpretation and application of those laws are often uncertain and evolving, and there can be no assurance that our security measures will be deemed adequate, appropriate or reasonable by a regulator or Court. Moreover, even security measures that are deemed appropriate, reasonable, and/or in accordance with applicable legal requirements may not be able to protect the information we maintain. In addition to potential fines, we could be subject to mandatory corrective action due to a data security incident, which could adversely affect our business operations and result in substantial costs for years to come.

Our actual or perceived failure to adequately protect personal data and confidential information that we (or our service providers or business partners) collect, store or process could trigger contractual and legal obligations, harm our reputation, subject us to liability and otherwise adversely affect our business including our financial results.

In the ordinary course of our business, we collect, store and process personal data (including payment card information) and/or other confidential information of our employees, our partners, and our users. We use third-party service providers and subprocessors to help us deliver our services. These vendors may store or process personal information, payment card information and/or other confidential information of our employees, our partners, or our users. We collect such information from individuals located both in the United States and abroad and may store or process such information outside the country in which it was collected.

A variety of state, national, and foreign laws and regulations apply to the collection, use, retention, protection, disclosure, security, transfer and other processing of personal data. These privacy and data protection-related laws and regulations are evolving, with new or modified laws and regulations proposed and implemented frequently and existing laws and regulations subject to new or different interpretations. In addition, each state and the District of Columbia, Guam, Puerto Rico, the U.S. Virgin Islands, EU member states, and the United Kingdom, as well as some other foreign nations, have passed laws requiring notification to regulatory authorities, to affected users, and/or others within a specific timeframe when there has been a security breach involving certain personal data as well as impose additional obligations for companies. Additionally, our agreements with certain users or partners may require us to notify them in the event of a security breach. Such statutory and contractual disclosures are costly, could lead to negative publicity, may cause our customers to lose confidence in the effectiveness of our security measures and require us to expend significant capital and other resources to respond to and/or alleviate problems caused by the actual or perceived security breach. Compliance with these obligations could delay or impede the development of new products and may cause reputational harm.

Litigation resulting from security breaches may adversely affect our business. Unauthorized access to our platform, systems, networks, or physical facilities could result in litigation with our users, or other relevant stakeholders. These proceedings could force us to spend money in defense or settlement, divert management's time and attention, increase our costs of doing business, or adversely affect our reputation. We could be required to fundamentally change our business activities and practices or modify our products and/or platform capabilities in response to such litigation, which could have an adverse effect on our business. Any actual or perceived inability to adequately protect the privacy of individuals' information in our possession, custody or control may render our products or services less desirable and could harm our reputation and business. Any costs incurred as a result of this potential liability could harm our business.

We and our third-party contractors collect, process, transmit and store the personal information of our users, which creates legal obligations and exposes us to potential liability.*

We collect, process, transmit and store information about a variety of individuals including our users and their devices, and rely on service providers to collect, process, transmit and store personal information of our users, including our users' payment card data. Further, we and our service providers as well as business partners use tracking technologies, including cookies, device identifiers and related technologies, to help us manage and track our users' interactions with our platform, devices, website and partners' content to deliver relevant advertising and personalized content for ourselves and on behalf of our partners on our devices.

We collect information about the interaction of users with our platform, devices, website, advertisements, and content publishers' streaming channels. To deliver relevant advertisements effectively, we must successfully leverage this data as well as data provided by third parties. Our ability to collect and use such data could be restricted by a number of factors, including users' having the ability to refuse consent to or opt out from our, our service providers or our advertising partners' collection and use of this data, restrictions imposed by advertisers, content publishers and service providers, changes in technology, and developments in laws, regulations and industry standards. For example, certain EU laws and regulations prohibit access to or storage of information on a user's device (such as cookies and similar technologies that we use for advertising) that is not "strictly necessary" to provide a user-requested service or used for the "sole purpose" of a transmission unless the user has provided unambiguous, affirmative consent, and users may choose not to provide this consent to collection of information which is used for advertising purposes. Any restrictions on our ability to collect or use data could harm our ability to grow our revenue, particularly our platform revenue which depends on engaging the relevant recipients of advertising campaigns.

Various federal, state, and foreign laws and regulations as well as industry standards and contractual obligations govern the collection, use, retention, sharing and security of the data we receive from and about our users, employees and other individuals. The regulatory environment for the collection and use of personal data by device manufacturers, online service providers, content distributors, advertisers and publishers is evolving in the United States and internationally. Privacy groups and government bodies, including the Federal Trade Commission ("FTC"), state attorneys general, the European Commission and European data protection authorities, have increasingly scrutinized privacy issues with respect to devices that identify or are identifiable to a person (or household or device) and personal data collected through the internet, and we expect such scrutiny to continue to increase. The United States and foreign governments have enacted and are considering laws and regulations that could significantly restrict industry participants' ability to collect, use and share personal data, such as by regulating the level of consumer notice and consent required before a company can place cookies or other tracking technologies. For example, the EU General Data Protection Regulation ("GDPR") became effective in May 2018 and imposes detailed requirements related to the collection, storage and use of personal data related to people located in the EU or which is processed in the context of EU operations and places new data protection obligations and restrictions on organizations and may require us to make further changes to our policies and procedures in the future beyond what we have already done.

Further, in the wake of Brexit, there has been uncertainty with regard to the regulation of data protection in the United Kingdom. Although the United Kingdom enacted a Data Protection Act in May 2018, a level of uncertainty remains regarding how data transfers to and from the United Kingdom will be regulated after Brexit. We made changes to our data protection compliance program to prepare for the GDPR and will continue to monitor the implementation and evolution of data protection regulations, but if we are not compliant with GDPR or other data protection laws or regulations if and when implemented, we may be subject to significant fines and penalties (such as restrictions on personal data processing) and our business may be harmed. For example, under the GDPR, fines of up to EUR 20 million or 4% of the annual global revenue of a noncompliant company, whichever is greater, as well as data processing restrictions could be imposed for violation of certain of the GDPR's requirements. Other countries have also proposed or passed legislation with personal data obligations similar to that of the GDPR.

The U.S. data protection legal landscape also continues to evolve, with California and Nevada having enacted broad-based data privacy and protection legislation and with states and the federal government continuing to consider additional data privacy and protection legislation. The potential effects of this legislation are far-reaching and may require us to modify our data processing practices and policies and to incur substantial costs and expenses in an effort to comply. Effective October 1, 2019, Nevada amended its existing Security of Personal Information Law ("SPI Law") to now require, among other things, that certain businesses provide a designated request address to intake requests from consumers to opt out of the sale of their personal data. The California Consumer Privacy Act ("CCPA") went into effect in January 2020 and gives California residents certain rights with respect to their personal information such as rights to access and require deletion of their personal information, opt out of the sale of their personal information, and receive detailed information about how their personal information is used. The CCPA also provides for civil penalties for violations, as well as a private right of action for data breaches that may increase data breach litigation. The CCPA was amended and the California Office of the Attorney General has proposed final regulations to implement portions of the CCPA, which are under review by the California Office of Administrative Law. Depending on the final text of the regulations, they may significantly impact the CCPA compliance measures we have, or will, undertake, which could require us to dedicate additional and significant resources.

Data protection laws continue to proliferate throughout the world and such laws likely apply to our business. For example, Brazil's General Data Protection Law ("LGDP") is due to be enforced from May 2021 (having recently been delayed from August 2020, subject to further approval). The LDGP bears many substantive similarities to the GDPR such as extra-territorial reach, enhanced privacy rights for individuals, data transfer restrictions and mandatory breach notification obligations. It carries penalties of up to 2% of a company's Brazilian revenue.

We are continuing to assess the impact of new and proposed data privacy and protection laws and proposed amendments to existing laws on our business.

Applicable data privacy and security laws may also obligate us to employ security measures that are appropriate to the nature of the data we collect and process and, among other factors, the risks attendant to our data processing activities in order to protect personal information from unauthorized access or disclosure, or accidental or unlawful destruction, loss, or alteration. We have implemented security measures that we believe are appropriate, but a regulator could deem our security measures not to be appropriate given the lack of prescriptive measures in certain data protection laws. Given the evolving nature of security threats and evolving safeguards, we cannot be sure that our chosen safeguards will protect against security threats to our business including the personal data that we process. However, even security measures that are appropriate, reasonable, and/or in accordance with applicable legal requirements may not be able to fully protect our information technology systems and the data contained in those systems, or our data that is contained in third parties' systems. Moreover, certain data protection laws impose on us responsibility for our employees and third parties that assist with aspects of our data processing. Our employees' or third parties' intentional, unintentional, or inadvertent actions may increase our vulnerability or expose us to security threats, such as phishing attacks, and we may remain responsible for successful access, acquisition or other disclosure of our data despite the quality and legal sufficiency of our security measures.

As part of our data protection compliance program, we have implemented data transfer mechanisms to provide for the transfer of personal data from the European Economic Area (the "EEA") to the United States. However, there are certain unsettled legal issues regarding the adequacy of these data transfer mechanisms, the resolution of which may adversely affect our ability to transfer personal data from the EEA to the United States. On July 16, 2020, the European Court of Justice (the highest EU Court) ruled the EU-US Privacy Shield to be an invalid data transfer mechanism. We are currently awaiting regulatory guidance from EU Data Protection Authorities and the US Department of Commerce on the impact of this ruling on our certification under the EU-US Privacy Shield scheme and broader international data transfer compliance.

We will continue to review our business practices and may find it necessary or desirable to make changes to our personal data processing to cause our transfer and receipt of EEA residents' personal data to conform to applicable European law. The regulation of data privacy in the EU continues to evolve, and it is not possible to predict the ultimate effect of evolving data protection regulation and implementation over time. Member states also have some flexibility to supplement the GDPR with their own laws and regulations and may apply stricter requirements for certain data processing activities.

In addition, some countries are considering or have enacted 'data localization' laws requiring that user data regarding users in their country be maintained in their country. Maintaining local data centers in individual countries could increase our operating costs significantly. We expect that, in addition to the business as usual costs of compliance, the evolving regulatory interpretation and enforcement of laws such as the GDPR and CCPA and other domestic and foreign data protection laws will lead to increased operational and compliance costs and will require us to continually monitor and, where necessary, make changes to our operations, policies, and procedures. Any failure or perceived failure to comply with privacy-related legal obligations, or any compromise of security of user data, may result in governmental enforcement actions, litigation, contractual indemnity or public statements against us by consumer advocacy groups or others. In addition to potential liability, these events could harm our business.

We publish privacy policies, notices and other documentation regarding our collection, processing, use and disclosure of personal information, credit card information and/or other confidential information. Although we endeavor to comply with our published policies, certifications, and documentation, we may at times fail to do so or may be perceived to have failed to do so. Moreover, despite our efforts, we may not be successful in achieving compliance if our employees or vendors fail to comply with our published policies, certifications, and documentation. Such failures can subject us to potential international, local, state and federal action if they are found to be deceptive, unfair, or misrepresentative of our actual practices.

We have incurred, and will continue to incur, expenses to comply with privacy and security standards and protocols imposed by law, regulation, industry standards and contractual obligations. Increased regulation of data collection, use and security practices, including self-regulation and industry standards, changes in existing laws, enactment of new laws, increased enforcement activity, and changes in interpretation of laws, could increase our cost of compliance and operation, limit our ability to grow our business or otherwise harm our business.

If government regulations or laws relating to the internet, video, advertising, or other areas of our business change, we may need to alter the manner in which we conduct our business, or our business could be harmed.*

We are subject to general business regulations and laws, as well as regulations and laws specific to the internet and online services, which may include laws and regulations related to data privacy and security, consumer protection, data localization, law enforcement access to data, encryption, telecommunications, social media, payment processing, taxation, intellectual property, competition, electronic contracts, internet access, net neutrality, advertising, calling and texting, content restrictions, protection of children and accessibility, among others. We cannot guarantee that we have been or will be fully compliant in every jurisdiction. Litigation and regulatory proceedings are inherently uncertain, and the laws and regulations governing issues such as data privacy and security, payment processing, taxation, net neutrality, video, telecommunications, e-commerce tariffs and consumer protection related to the internet continue to develop. For example, laws relating to the liability of providers of online services for activities of their users and other third parties have been tested by a number of claims, including actions based on invasion of privacy and other torts, unfair competition, copyright and trademark infringement, and other theories based on the nature and content of the materials searched, the advertisements posted, actions taken or not taken by providers in response to user activity or the content provided by users. Congress has also enacted legislation related to liability of providers of online services and may continue to legislate in this area. The CCPA and Nevada SPI Law also apply to entities that do business in California and Nevada, respectively, and impose a number of requirements on internet and online services. Moreover, as internet commerce and advertising continue to evolve, increasing regulation by federal, state and foreign regulatory authorities becomes more likely.

As we develop new services and devices, and improve our streaming platform, we may also be subject to new laws and regulations specific to such technologies. For example, in developing our Roku TV reference design, we were required to understand, address and comply with an evolving regulatory framework for developing, manufacturing, marketing and selling TVs. If we fail to adequately address or comply with such regulations regarding the manufacture and sale of TVs, we may be subject to fines or sanctions, and our licensees may be unable to sell Roku TV models at all, which would harm our business and our ability to grow our user base.

Laws relating to data privacy and security, data localization, law enforcement access to data, encryption, and similar activities continue to proliferate, often with little harmonization between jurisdictions and limited guidance. A number of existing bills are pending in the U.S. Congress and other government bodies that contain provisions that would regulate, for example, how companies can use cookies and other tracking technologies to collect, use and share user information. The CCPA also imposes requirements on certain tracking activity, and we are continuing to assess the impact of the CCPA and proposed amendments to the law on our business. The EU already has existing laws, which are due for update in 2020, requiring advertisers or companies like ours to, for example, obtain unambiguous, affirmative consent from users for the placement of cookies or other tracking technologies and the delivery of relevant advertisements. If we or the third parties that we work with, such as contract payment processing services, content publishers, vendors or developers violate or are alleged to violate applicable privacy or security laws, industry standards, our contractual obligations, or our policies, such violations and alleged violations may also put our users' information at risk and could in turn harm our business and reputation and subject us to potential liability. Any of these consequences could cause our users, advertisers or publishers to lose trust in us, which could harm our business. Furthermore, any failure on our part to comply with these laws may subject us to liability and reputational harm.

Our use of data to deliver relevant advertising and other services on our platform places us and our content publishers at risk for claims under various unsettled laws, including the Video Privacy Protection Act ("VPPA"). Some of our content publishers have been engaged in litigation over alleged violations of the VPPA relating to activities on our platform in connection with advertising provided by unrelated third parties. The Federal Trade Commission has also in recent years revised its rules implementing the Children's Online Privacy Protection Act ("COPPA Rules") broadening the applicability of the COPPA Rules, including the types of information that are subject to these regulations, and it is currently examining whether additional changes are appropriate. Such actions could limit the information that we or our content publishers and advertisers may collect and use through certain content publishers, the content of advertisements and in relation to certain channel partner content. The CCPA also imposes certain opt in and opt out requirements for certain information about minors. We and our content publishers and advertisers could be at risk for violation or alleged violation of these and other privacy, advertising, or similar laws.

Any significant disruption in our computer systems or those of third parties we utilize in our operations could result in a loss or degradation of service on our platform and could harm our business.

We rely on the expertise of our engineering and software development teams for the performance and operation of the Roku OS, streaming platform and computer systems. Service interruptions, errors in our software or the unavailability of computer systems used in our operations could diminish the overall attractiveness of our devices and streaming platform to existing and potential users. We utilize computer systems located either in our facilities or those of third-party server hosting providers and third-party internet-based or cloud computing services. Although we generally enter into service level agreements with these parties, we exercise no control over their operations, which makes us vulnerable to any errors, interruptions or delays that they may experience. In the future, we may transition additional features of our services from our managed hosting systems to cloud computing services, which may require significant expenditures and engineering resources. If we are unable to manage a transition effectively, we may experience operational delays and inefficiencies until the transition is complete. Upon the expiration or termination of any of our agreements with third-party vendors, we may not be able to replace their services in a timely manner or on terms and conditions, including service levels and cost, that are favorable to us, and a transition from one vendor to another vendor could subject us to operational delays and inefficiencies until the transition is complete. In addition, fires, floods, earthquakes, power losses, telecommunications failures, break-ins and similar events could damage these systems and hardware or cause them to fail completely. As we do not maintain entirely redundant systems, a disrupting event could result in prolonged downtime of our operations and could adversely affect our business. Any disruption in the services provided by these vendors could have adverse impacts on our business reputation, customer relations and operating results.

If any aspect of our computer systems or those of third parties we utilize in our operations fails, it may lead to downtime or slow processing time, either of which may harm the experience of users. 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 and capacity constraints. We expect to continue to invest in our technology infrastructure to maintain and improve the user experience and platform performance. To the extent that we or our third-party service hosting provider do not effectively address capacity constraints, upgrade or patch systems as needed and continually develop technology and network architecture to accommodate increasingly complex services and functions, increasing numbers of users, and actual and anticipated changes in technology, our business may be harmed.

Our players and Roku TV models must operate with various offerings, technologies and systems from our content publishers that we do not control. If our streaming devices do not operate effectively with those offerings, technologies and systems, our business may be harmed.

The Roku OS is designed for performance using relatively low-cost hardware, which enables us to drive user growth with our players and Roku TV models offered at a low cost to consumers. However, this hardware must be interoperable with all channels and other offerings, technologies and systems from our content publishers, including virtual multi-channel video programming distributors. We have no control over these offerings, technologies and systems beyond our channel certification requirements, and if our players and Roku TV models do not provide our users with a high-quality experience on those offerings on a cost-effective basis or if changes are made to those offerings that are not compatible with our players or Roku TV models, we may be unable to increase active account growth and user engagement, we may be required to increase our hardware costs and our business will be harmed. We plan to continue to introduce new products regularly and we have experienced that it takes time to optimize such products to function well with these offerings, technologies and systems. In addition, many of our largest content publishers have the right to test and certify our new products before we can publish their channels on these devices. The certification processes can be time consuming and introduce third-party dependencies into our product release cycles. If content publishers do not certify new products on a timely basis or require us to make changes in order to obtain certifications, our product release plans may be adversely impacted, or we may not continue to offer certain channels. To continue to grow our active accounts and user engagement, we will need to prioritize development of our streaming devices to work better with new offerings, technologies and systems. If we are unable to maintain consistent operability of our devices that is on parity with or better than other platforms, our business could be harmed. In addition, any future changes to offerings, technologies and systems from our content publishers, such as virtual service operators, may impact the accessibility, speed, functionality, and other performance aspects of our streaming devices. We may not successfully develop streaming devices that operate effectively with these offerings, technologies or systems. If it becomes more difficult for our users to access and use these offerings, technologies or systems, our business could be harmed.

If our content publishers do not continue to develop channels for our platform and participate in new features that we may introduce from time to time, our business may be harmed.

As our streaming platform and products evolve, we will continue to introduce new features, which may or may not be attractive to our content publishers or meet their requirements. For example, some content publishers have elected not to participate in our cross-channel search feature, our integrated advertising framework, or have imposed limits on our data gathering for usage within their channels. In addition, our streaming platform utilizes our proprietary Brightscript scripting language in order to allow our content publishers to develop and create channels on our streaming platform. If we introduce new features or utilize a new scripting language in the future, such a change may not comply with our content publishers' certification requirements. In addition, our content publishers may find other languages, such as HTML5, more attractive to develop for and shift their resources to developing their channels on other platforms. If content publishers do not find our streaming platform simple and attractive to develop channels for, do not value and participate in all of the features and functionality that our streaming platform offers, or determine that our software developer kit or new features of our platform do not meet their certification requirements, our business may be harmed.

If the advertising and audience development campaigns and other promotional advertising on our platform are not relevant or not engaging to our users, our growth in active accounts and streaming hours may be adversely impacted.*

We have made, and are continuing to make, investments to enable advertisers and content publishers to deliver relevant advertisement, audience development campaigns and other promotional advertising to our users. Existing and prospective advertisers and content publishers may not be successful in serving ads and audience development campaigns and sponsoring other promotional advertising that lead to and maintain user engagement. Those ads and campaigns may seem irrelevant, repetitive or overly targeted and intrusive. We are continuously seeking to balance the objectives of our advertisers and content publishers with our desire to provide an optimal user experience, but we may not be successful in achieving a balance that continues to attract and retain users, advertisers and content publishers. If we do not introduce relevant advertisers, audience development campaigns and other promotional adverting or such advertisements, audience development campaigns and other promotional advertising are overly intrusive and impede the use of our streaming platform, our users may stop using our platform which will harm our business.

The Roku Channel may not continue to attract a large number of users and/or generate significant revenue from advertising, and our users may not purchase Premium Subscriptions.

We operate The Roku Channel, which offers both ad-supported free access for users to a collection of films, television series and other content as well as Premium Subscriptions, which we launched in January 2019, allowing our users to pay for ad-free content from various content publishers, all on one streaming channel. We have incurred, and will continue to incur, costs and expenses in connection with the development, expansion and operation of The Roku Channel, which we monetize primarily through advertising. If our users do not continue to stream the free, ad-supported content we make available on The Roku Channel, we will not have the opportunity to monetize The Roku Channel through revenue generated from advertising. In order to attract users to the ad-supported content on The Roku Channel and drive streaming of ad-supported video on The Roku Channel, we must secure rights to stream content that is appealing to our users and advertisers. In part, we do this by directly licensing certain content from content owners, such as television and movie studios. The agreements that we enter into with these content owners have varying terms and provide us with rights to make specific content available through The Roku Channel during certain periods of time. Upon expiration of these agreements, we are required to re-negotiate and renew these agreements with the content owners, or enter into new agreements with other content owners, in order to obtain rights to distribute additional titles or to extend the duration of the rights previously granted. If we are unable to enter into content license agreements on acceptable terms to access content that enables us to attract and retain users of the ad-supported content on The Roku Channel, usage of The Roku Channel may decline, and our business may be harmed. Furthermore, if the advertisements on The Roku Channel are not relevant to our users or such advertisements are overly intrusive and impede our users' enjoyment of the available content, our users may not stream content and view advertisements on The Roku Channel, and The Roku Channel may not generate sufficient revenue from advertising to be cost effective for us to operate, regardless of our ability to sell Premium Subscriptions. In addition, we distribute The Roku Channel on platforms other than our own streaming platform, and there can be no assurance that we will be successful in attracting a large number of users and/or generating significant revenue from advertising through the distribution of The Roku Channel on such other streaming platforms.

If our users sign up for offerings and services outside of our platform or through other channels on our platform, our business may be harmed.

We earn revenue by acquiring subscribers for certain of our content publishers activated on or through our platform. If users do not use our platform for these purchases or subscriptions for any reason, and instead pay for services directly with content publishers or by other means that we do not receive attribution for, our business may be harmed. In addition, certain channels available on our platform allow users to purchase additional streaming services from within their channels. The revenue we earn from these transactions is generally not equivalent to the revenue we earn from activations on or through our platform that we receive full attribution credit for. Furthermore, for Premium Subscriptions, we only earn revenue for SVOD channels, including subscriptions to these services through The Roku Channel. Accordingly, if users activate subscriptions for SVOD channels, including channels available as Premium Subscriptions through The Roku Channel other than on our platform, our business may be harmed.

Our revenue and gross profit are subject to seasonality and if our sales during the holiday season fall below our expectations, our business may be harmed.*

Seasonal consumer shopping patterns significantly affect our business. Specifically, our revenue and gross profit are traditionally strongest in the fourth quarter of each fiscal year and represent a high percentage of the total net revenue for such fiscal year due to higher consumer purchases and increased advertising during holiday seasons. Furthermore, a significant percentage of our player sales through retailers in the fourth quarter are pursuant to committed sales agreements with retailers for which we recognize significant discounts in the average selling prices in the third quarter in an effort to grow our active accounts, which will reduce our player gross margin.

Given the seasonal nature of advertising and our device sales, accurate forecasting is critical to our operations. We anticipate that this seasonal impact on revenue and gross profit is likely to continue, and any shortfall in expected fourth quarter revenue due to a decline in the effectiveness of our promotional activities, actions by our competitors, disruptions in our supply or distribution chain, tariffs or other restrictions on trade, or for any other reason, would cause our full year results of operations to suffer significantly. For example, delays or disruptions at U.S. ports of entry could adversely affect our or our distributors' ability to timely deliver players and co-branded Roku TV models to retailers during the holiday season. Our third and fourth quarter 2020 revenue could also be adversely impacted by the COVID-19 pandemic or macroeconomic conditions caused by the COVID-19 pandemic if the pandemic causes disruptions, decreased advertising spend during holiday seasons and changes to historical consumer behavior and spending patterns during the back-to-school and holiday seasons. A substantial portion of our expenses are personnel related, including salaries, stock-based compensation and benefits, and facilities related none of which are seasonal in nature. Accordingly, in the event of a revenue shortfall, we would be unable to mitigate the negative impact on gross profit and operating margins, at least in the short term, and our business would be harmed.

Changes in consumer viewing habits could harm our business.

The manner in which consumers access streaming content is changing rapidly. As the technological infrastructure for internet access continues to improve and evolve, consumers will be presented with more opportunities to access video, music and games on-demand with interactive capabilities. Time spent on mobile devices is growing rapidly, in particular by young adults streaming content as well as content from cable or satellite providers available live or on-demand on mobile devices. In addition, personal computers, smart TVs, DVD players, Blu-ray players, gaming consoles and cable set-top boxes allow users to access streaming content. If other streaming or technology providers are able to respond and take advantage of changes in consumer viewing habits and technologies better than us, our business could be harmed.

New entrants may enter the TV streaming market with unique service offerings or approaches to providing video. In addition, our competitors may enter into business combinations or alliances that strengthen their competitive positions. If new technologies render the TV streaming market obsolete or we are unable to successfully compete with current and new competitors and technologies, our business will be harmed.

If our efforts to build a strong brand and maintain customer satisfaction and loyalty are not successful, we may not be able to attract or retain users, and our business may be harmed.

Building and maintaining a strong brand is important to attract and retain users, as potential users have a number of TV streaming choices. Successfully building a brand is a time consuming and comprehensive endeavor and can be positively and negatively impacted by any number of factors. Certain factors, such as the quality or pricing of our players or our customer service, are within our control. Other factors, such as the quality and reliability of Roku TV models and the quality of the content that our content publishers provide, may be out of our control, yet users may nonetheless attribute those factors to us. Our competitors may be able to achieve and maintain brand awareness and market share more quickly and effectively than we can. Many of our competitors are larger companies and promote their brands through traditional forms of advertising, such as print media and TV commercials, and have substantial resources to devote to such efforts. Our competitors may also have greater resources to utilize digital advertising or website product placement more effectively than we can. If we are unable to execute on building a strong brand, it may be difficult to differentiate our business and streaming platform from our competitors in the marketplace, therefore our ability to attract and retain users may be adversely affected and our business may be harmed.

Our streaming platform allows our users to choose from thousands of channels, representing a variety of content from a wide range of content publishers. Our users can choose and control which channels they download and watch, and they can use certain settings to prevent channels from being downloaded to our streaming devices. While we have policies that prohibit the publication of content that is unlawful, incites illegal activities or violates third-party rights, among other things, we may distribute channels that include controversial content. Controversies related to the content included on certain of the channels that we distribute could result in negative publicity, cause harm to our reputation and brand, or subject us to claims and may harm our business.

We must successfully manage streaming device and other product introductions and transitions to remain competitive.

We must continually develop new and improved streaming devices and other products that meet changing consumer demands. Moreover, the introduction of a new streaming device or other product is a complex task, involving significant expenditures in research and development, promotion and sales channel development. For example, in 2018, we introduced our Roku TV Wireless Speakers, designed specifically for use with Roku TV models, and in 2019 we introduced our Roku Smart Soundbar and Roku Wireless Subwoofer. Whether users will broadly adopt new streaming devices or other products is not certain. Our future success will depend on our ability to develop new and competitively priced streaming devices and other products and add new desirable content and features to our streaming platform. Moreover, we must introduce new streaming devices and other products in a timely and cost-effective manner, and we must secure production orders for those products from our contract manufacturer. The development of new streaming devices and other products is a highly complex process, and while our research and development efforts are aimed at solving increasingly complex problems, we do not expect that all of our projects will be successful. The successful development and introduction of new streaming devices and products depends on a number of factors, including:

- the accuracy of our forecasts for market requirements beyond near term visibility;
- our ability to anticipate and react to new technologies and evolving consumer trends;
- our development, licensing or acquisition of new technologies;
- our timely completion of new designs and development;
- the ability of our contract manufacturer to cost-effectively manufacture our new products;
- the availability of materials and key components used in manufacturing;
- tariffs which could impact the pricing of such devices and depress consumer demand; and
- our ability to attract and retain world-class research and development personnel.

If any of these or other factors materializes, we may not be able to develop and introduce new products in a timely or cost-effective manner, and our business may be harmed.

We do not have manufacturing capabilities and primarily depend upon one contract manufacturer, and our operations could be disrupted if we encounter problems with our contract manufacturer.*

We do not have any internal manufacturing capabilities and rely on one contract manufacturer to build our players, smart soundbars, wireless subwoofers and our wireless speakers. Our contract manufacturer is vulnerable to:

- capacity constraints,
- reduced component availability,
- production disruptions or delays, including from strikes, mechanical issues, quality control issues, natural disasters, and public health crises, such as the pandemic caused by the outbreak of the coronavirus, known as COVID-19; and
- the impact of U.S. or foreign tariffs on components or finished goods or other products;
- increases in U.S. tariffs on imports of our players; and
- foreign tariffs on U.S. parts or components for finished players that are assembled in Asia.

As a result, we have limited control over delivery schedules, manufacturing yields and costs, particularly when components are in short supply or when we introduce new streaming devices or other products. For example, during the quarter ended March 31, 2020, our contract manufacturer experienced extended factory closures related to the spread of COVID-19 resulting in supply chain disruptions for our players and elevated air freight costs to meet demand.

We also have limited control over our contract manufacturer's quality systems and controls, and therefore must rely on it to manufacture our players and other products to our quality and performance standards and specifications. Delays, component shortages and other manufacturing and supply problems could impair the retail distribution of our players and other products and ultimately our brand. Furthermore, any adverse change in our contract manufacturer's financial or business condition could disrupt our ability to supply our players or other products to our retailers and distributors.

Our contracts with our contract manufacturer generally do not obligate it to supply our players or other products in any specific quantity or at any specific price. In the event our contract manufacturer is unable to fulfill our production requirements in a timely manner, their costs increase because of U.S. or international tariffs, or they decide to terminate their relationship with us, our order fulfillment may be delayed, and we would have to identify, select and qualify acceptable alternative contract manufacturers. Alternative contract manufacturers may not be available to us when needed or may not be in a position to satisfy our production requirements at commercially reasonable prices, to our quality and performance standards or at all. Any significant interruption in manufacturing at our contract manufacturer for any reason could require us to reduce our supply of players or other products to our retailers and distributors, which in turn would reduce our revenue, or to incur higher freight costs than anticipated, which would negatively impact our player gross margin. In addition, our contract manufacturer's facilities are located in South East Asia and the People's Republic of China and may be subject to political, economic, labor, trade, social and legal uncertainties that may harm or disrupt our relationships with these parties. We believe that the international location of these facilities increases supply risk, including the risk of supply interruptions, tariffs, and trade restrictions on exports or imports. Furthermore, any manufacturing issues affecting the quality of our products, including players and audio products, could harm our business.

If our contract manufacturer fails for any reason to continue manufacturing our players or other products in required volumes and at high quality levels, or at all, we would have to identify, select and qualify an acceptable alternative contract manufacturer or manufacturers. Alternative contract manufacturers may not be available to us when needed, or at all, or may not be in a position to satisfy our production requirements at commercially reasonable prices, to our quality and performance standards, or at all. Any significant interruption in manufacturing at a contract manufacturer could require us to reduce our supply of players or other products to our retailers and distributors, which in turn would reduce our revenue, active account growth or streaming hour growth.

Certain Roku TV brands do not have manufacturing capabilities and primarily depend upon contract manufacturers, and the supply of Roku TV models to the market could be disrupted if they encounter problems with their contract manufacturers or suppliers.*

Certain Roku TV brands do not have internal manufacturing capabilities and primarily rely upon contract manufacturers to build the Roku TV models that they sell to retailers. Their contract manufacturers may be vulnerable to capacity constraints and reduced component availability, increases in U.S. tariffs on imports of Roku TV models, future possible changes in U.S. regulations on exports of U.S. technologies or dealings with certain countries or parties, foreign tariffs on U.S. parts or components for Roku TV models that are assembled outside of the U.S., and their control over delivery schedules, manufacturing yields and costs, particularly when components are in short supply may be limited. Delays, component shortages, factory shutdowns due to the COVID-19 pandemic and other manufacturing and supply problems could impair the retail distribution of their Roku TV models. A significant interruption in the supply of Roku TV models to retailers and distributors could, in turn, reduce our active accounts and streaming hours.

Furthermore, any manufacturing issues affecting the quality of our Roku TV brand partners' Roku TV models, could harm our brand and our business.

Changes in general economic conditions, geopolitical conditions, U.S. trade policies and other factors beyond our control may adversely impact our business and operating results.*

Our business is subject to risks generally associated with doing business abroad, such as U.S. and foreign governmental regulation in the countries in which our contract manufacturer and component suppliers are located. Our operations and performance depend significantly on global, regional and U.S. economic and geopolitical conditions. For example, there has been discussion and dialogue regarding potential significant changes to U.S. trade policies, legislation, treaties and tariffs. For example, in November 2018, the United States, Mexico, and Canada signed the United States-Mexico-Canada Agreement ("USMCA") which supersedes the North American Free Trade Agreement. The USMCA has been ratified by the respective legislatures of each of the three countries. Congress approved the USMCA in the United States-Mexico-Canada Agreement Implementation Act (H.R.5430) in January 2020 (the "Act"), and the President signed the Act into law. The USMCA agreement entered into force on July 1, 2020, although there are some remaining issues with respect to ensuring that Mexico's and Canada's laws and regulations to ensure that both are fully in compliance with the USMCA obligations and commitments, and the parties are still in the process of finalizing certain regulations regarding customs procedures, rules of origin, and other provisions that could affect products sourced from Mexico or Canada, and their eligibility for duty-free entry into the U.S., Mexican, and Canadian markets.

The current U.S. Administration also has threatened tougher trade terms with China and other countries, leading to the imposition of substantially higher U.S. Section 301 tariffs on roughly $380 billion of imports from China. In response, China has imposed higher Chinese tariffs on a large amount of U.S. exports to China, which could affect the prices of U.S. origin parts or components of our products assembled in China. In January 2020, the U.S. and China signed a "Phase One" trade deal pursuant to which, among other things, the U.S. will modify its Section 301 tariff actions. As part of the Phase One agreement, the U.S. canceled additional Section 301 duties that were originally scheduled to go into effect in December 2019 on certain imported products, including certain of our products, and reduced the duties on certain other imported products, including televisions assembled in China by Roku TV brand partners, from 15% *ad valorem* to 7.5%.

At this time, it is unknown whether the Phase One deal will last or whether there will be sufficient progress on Phases Two and Three to lead to a further reduction in U.S.-China trade tensions: whether additional Section 301 tariffs will be imposed on Roku products, imported from China and, if so, how long U.S. tariffs on Chinese goods will remain in effect or whether even higher tariffs will be imposed, or new regulatory proposals to restrict trade will be adopted. There are also pressures on the U.S. Administration to retaliate against China over China's inability to prevent COVID-19 from spreading outside of the country's borders and China's actions in Hong Kong, which could lead to additional U.S., Chinese and other tariffs, or a resumption of trade hostilities, exposing us to increased tariffs in the U.S. and Chinese markets. Finally, there are questions whether international trade agreements will be negotiated or existing free trade agreements re-negotiated; whether new trade or tariff actions will be announced by the current Administration; or the effect that any such action would have, either positively or negatively, on our industry or our business or licensees. If any new legislation and/or regulations are implemented, or if existing trade agreements are renegotiated or terminated, or if tariffs are imposed on foreign-sourced or U.S. goods, it may be inefficient and expensive for us to alter our business operations in order to adapt to or comply with such changes, and higher prices could depress consumer demand. Such operational changes could have a material adverse effect on our business, financial condition, results of operations or cash flows.

Also, various countries, in addition to the United States, regulate the import and export of certain commodities, software, and technology, including import and export licensing requirements, and have enacted laws that could limit our ability to distribute our products or collaborate on technology with our commercial or strategic partners, or could limit our commercial and/or strategic partners' ability to implement our products in those countries. Changes in our products or future changes in export and import regulations may create delays in the introduction of our products in international markets, prevent our commercial and/or strategic partners with international operations from deploying our products globally or, in some cases, prevent the export or import of our products to certain countries, governments, or persons altogether. In particular, the U.S. government continues to expand export control restrictions on China and Hong Kong, which may limit the company's ability to collaborate with and transfer technology to partners in the region. Cross-border data transmissions are currently exempt from customs duties under the WTO's temporary e-commerce moratorium on electronic transmissions, but the moratorium is likely to face opposition from certain WTO Members when it comes up for renewal at the WTO Ministerial Meeting, which was originally scheduled for June 2020 and has now been postponed but may take place in 2021. Other potential barriers include digital services taxes which potentially could expose certain digital services to new taxes, economic sanctions or related legislation, increased export and import controls stemming governmental policies, or changes in the countries, governments, persons or technologies targeted by such regulations. Any change in export or import regulations, the imposition of customs duties on intangible goods such as cross-border data flows, could result in decreased use of our products by, or in our decreased ability to export or sell our products to, existing or new customers in international markets or hamper our ability to source components, and parts from certain suppliers. Any decreased use of our products or limitation on our ability to export or sell our products, or source parts and/or components, would harm our business.

Further, following the result of a referendum in 2016, the United Kingdom formally left the EU on January 31, 2020. The United Kingdom's withdrawal from the EU is commonly referred to as "Brexit." Pursuant to the withdrawal arrangements agreed to between the United Kingdom and the EU, the United Kingdom is subject to a transition period until December 31, 2020, during which EU rules will continue to apply (the "Brexit Transition Period"). Negotiations between the United Kingdom and the EU are expected to continue in relation to the customs and trading relationship between the United Kingdom and the EU following the expiry of the Brexit Transition Period. The effects of Brexit have been and are expected to continue to be far-reaching. Brexit and the perceptions as to its impact may adversely affect business activity and economic conditions globally and could continue to contribute to instability in global financial markets. Brexit could also have the effect of disrupting the free movement of goods, services, and people between the United Kingdom and the EU. In addition, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the United Kingdom determines which EU laws to replace or replicate. The full effects of Brexit are uncertain and will remain so until after the Brexit Transition Period. This depends in part on whether the United Kingdom and EU can reach a definitive resolution with regards to outstanding trade and legal matters, or whether the United Kingdom leaves without an agreement. Given these possibilities and others we may not anticipate, as well as the lack of comparable precedent, the full extent to which our business, results of operations, and financial condition could be adversely affected by Brexit is uncertain.

The supply chains of our contract manufacturer and many of our licensees may source products, parts or components from China, countries near China and the Asia-Pacific region. There are many uncertainties around the COVID-19 pandemic, including scientific and health issues, the unknown duration and extent of economic disruption in China and other markets in the region, and the impact on the Chinese, U.S., and global economies. As a result, the COVID-19 pandemic may result in further supply shortages of our products or our licensees' products, and delays in shipping and transportation services that negatively impact our ability or our licensees' ability to import, export, ship, or sell streaming devices to customers in U.S. and international markets. Any decrease, limitations or delays on our or our licensees' ability to produce, import, export, ship, or sell our streaming devices would harm our business.

If we fail to accurately forecast our manufacturing requirements and manage our inventory with our contract manufacturer, we could incur additional costs, experience manufacturing delays and lose revenue.

We bear supply risk under our contract manufacturing arrangements. Lead times for the materials and components that our contract manufacturer order on our behalf through different component suppliers vary significantly and depend on numerous factors, including the specific supplier, contract terms and market demand for a component at a given time. Lead times for certain key materials and components incorporated into our players or other products are currently lengthy, requiring our contract manufacturer to order materials and components several months in advance. If we overestimate our production requirements, our contract manufacturer may purchase excess components and build excess inventory. If our contract manufacturer, at our request, purchase excess components that are unique to our products or build excess products, we could be required to pay for these excess components or products. In the past, we have agreed to reimburse our contract manufacturers for purchased components that were not used as a result of our decision to discontinue a certain model of player or the use of particular components. If we incur costs to cover excess supply commitments, this would harm our business.

Conversely, if we underestimate our player or other product requirements, our contract manufacturer may have inadequate component inventory, which could interrupt the manufacturing of our players or other products and result in delays or cancellation of orders from retailers and distributors. In addition, from time to time we have experienced unanticipated increases in demand that resulted in the need to ship players via air freight, which is more expensive than ocean freight, and adversely affected our player gross margin during such periods of high demand, for example, during end-of-year holidays. If we fail to accurately forecast our manufacturing requirements, our business may be harmed.

Our players incorporate key components from sole source suppliers and if our contract manufacturer is unable to source these components on a timely basis, due to fabrication capacity issues or other material supply constraints, we will not be able to deliver our players to our retailers and distributors.*

We depend on sole source suppliers for key components in our players. Our players utilize specific system on chip, or SoC, Wi-Fi silicon products and Wi-Fi front-end modules from various manufacturers, depending on the player, for which we do not have a second source. Although this approach allows us to maximize player performance on lower cost hardware, reduce engineering qualification costs and develop stronger relationships with our strategic suppliers, this also creates supply chain risk. These sole-source suppliers could be constrained by fabrication capacity issues or material supply issues, such as tariffs on U.S. parts or components for finished players that are used in final assembly of their components, or the risk that the strategic supplier may stop producing such components, cease operations or be acquired by, or enter into exclusive arrangements with, our competitors or other companies. Such suppliers may also face production, shipping, or logistical constraints arising from the COVID-19 pandemic. Any such interruption or delay may force us to seek similar components from alternative sources, which may not be available. Switching from a sole-source supplier would require that we redesign our players to accommodate new components and would require us to re-qualify our players with regulatory bodies, such as the Federal Communications Commission ("FCC"), which would be costly and time-consuming.

Our reliance on sole-source suppliers involves a number of additional risks, including risks related to:

- supplier capacity constraints;
- price increases;
- timely delivery;
- component quality; and
- delays in, or the inability to execute on, a supplier roadmap for components and technologies.

Any interruption in the supply of sole-source components for our players could adversely affect our ability to meet scheduled player deliveries to our retailers and distributors, result in lost sales and higher expenses and harm our business.

If we fail to attract and retain key personnel, effectively manage succession, or hire, develop, and motivate our employees, we may not be able to execute our business strategy or continue to grow our business.*

Our success depends in large part on our ability to attract and retain key personnel on our senior management team and in our engineering, research and development, sales and marketing, operations and other organizations. In particular, our founder, President and Chief Executive Officer, Anthony Wood, is critical to our overall management, as well as the continued development of our devices and streaming platform, our culture and our strategic direction. We do not have long-term employment or non-competition agreements with any of our key personnel. The loss of one or more of our executive officers or the inability to promptly identify a suitable successor to a key role could have an adverse effect on our business.

Our ability to compete and grow depends in large part on the efforts and talents of our employees. Our employees, particularly engineers and other product developers, are in high demand, and we devote significant resources to identifying, hiring, training, successfully integrating and retaining these employees. Because we face significant competition for personnel, particularly in the San Francisco Bay Area where our headquarters is located, to attract top talent, we have had to offer, and believe we will need to continue to offer, competitive compensation packages before we can validate the productivity of those employees. To retain employees, we also may need to increase our employee compensation levels in response to competition. The loss of employees or the inability to hire additional skilled employees is necessary to support our growth could result in significant disruptions to our business, and the integration of replacement personnel could be time-consuming and expensive and cause disruptions.

We believe a critical component to our success and our ability to retain our best people is our culture. As we continue to grow, we may find it difficult to maintain our entrepreneurial, execution-focused culture. In addition, many of our employees may be able to receive significant proceeds from sales of our equity in the public markets, which may reduce their motivation to continue to work for us. Moreover, the equity ownership of many of our employees could create disparities in wealth among our employees, which may harm our culture and relations among employees and our business.

We need to maintain operational and financial systems that can support our expected growth, increasingly complex business arrangements, and rules governing revenue and expense recognition and any inability or failure to do so could adversely affect our financial reporting, billing and payment services.

We have a complex business that is growing in size and complexity both in the United States and in international jurisdictions. To manage our growth and our increasingly complex business operations, especially as we move into new markets internationally or acquire new businesses, we will need to maintain and may need to upgrade our operational and financial systems and procedures, which requires management time and may result in significant additional expense. Our business arrangements with our content partners, advertisers, Roku TV brand partners and other licensees, and the rules that govern revenue and expense recognition in our business are increasingly complex. To manage the expected growth of our operations and increasing complexity, we must maintain operational and financial systems, procedures and controls and continue to increase systems automation to reduce reliance on manual operations. An inability to do so will negatively affect our financial reporting, billing and payment services. Our current and planned systems, procedures and controls may not be adequate to support our complex arrangements and the rules governing revenue and expense recognition for our future operations and expected growth. Delays or problems associated with any improvement or expansion of our operational and financial systems and controls could adversely affect our relationships with our users, content publishers, advertisers, advertisement agencies, Roku TV brand partners, or other licensees; cause harm to our reputation and brand; and could also result in errors in our financial and other reporting.

We are subject to payment-related risks and, if our advertisers or advertising agencies do not pay or dispute their invoices, our business may be harmed.*

Many of our contracts with advertising agencies provide that if the advertiser does not pay the agency, the agency is not liable to us, and we must seek payment solely from the advertiser, a type of arrangement called sequential liability. Contracting with these agencies, which in some cases have or may develop higher-risk credit profiles, may subject us to greater credit risk than if we were to contract directly with advertisers. This credit risk may vary depending on the nature of an advertising agency's aggregated advertiser base. In addition, typically, we are contractually required to pay advertising inventory data suppliers within a negotiated period of time, regardless of whether our advertisers or advertising agencies pay us on time, or at all. In addition, we typically experience slow payment cycles by advertising agencies as is common in the advertising industry. While we attempt to balance payment periods with our suppliers and advertisers and advertising agencies, we are not always successful. As a result, we can often face a timing issue with our accounts payable on shorter cycles than our accounts receivables, requiring us to remit payments from our own funds, and accept the risk of credit losses.

We may also be involved in disputes with agencies and their advertisers over the operation of our streaming platform, the terms of our agreements or our billings for purchases made by them through on our streaming platform or through our DSP. If we are unable to collect or make adjustments to bills, we could incur credit losses, which could have a material adverse effect on our results of operations for the periods in which the write-offs occur. In the future, bad debt may exceed reserves for such contingencies and our bad debt exposure may increase over time. Any increase in write-offs for bad debt could have a materially negative effect on our business, financial condition and operating results. If we are not paid by our advertisers or advertising agencies on time or at all, our business may be harmed.

Changes in how network operators manage data that travel across their networks could harm our business.

Our business relies upon the ability of our users to access high-quality streaming content through the internet. As a result, the growth of our business depends on our users' ability to obtain and maintain low-cost, high-speed access to the internet, which relies in part on the network operators' continuing willingness to upgrade and maintain their equipment as needed to sustain a robust internet infrastructure as well as their continued willingness to preserve the open and interconnected nature of the internet. We exercise no control over network operators, which makes us vulnerable to any errors, interruptions or delays in their operations. Any material disruption or degradation in internet services could harm our business.

To the extent that the number of internet users continues to increase, network congestion could adversely affect the reliability of our streaming platform. We may also face increased costs of doing business if network operators engage in discriminatory practices with respect to streamed video content in an effort to monetize access to their networks by data providers. In the past, internet service providers have attempted to implement usage-based pricing, bandwidth caps and traffic "shaping" or throttling. To the extent network operators were to create tiers of internet access service and either charge us for access to these tiers or prohibit our content offerings from being available on some or all of these tiers, our quality of service could decline, our operating expenses could increase and our ability to attract and retain users could be impaired, each of which would harm our business.

In addition, most network operators that provide consumers with access to the internet also provide these consumers with multichannel video programming. These network operators have an incentive to use their network infrastructure in a manner adverse to the continued growth and success of other companies seeking to distribute similar video programming. To the extent that network operators are able to provide preferential treatment to their own data and content, as opposed to ours, our business could be harmed.

Litigation regarding intellectual property rights could result in the loss of rights important to our devices and streaming platform, cause us to incur significant legal costs or otherwise harm our business.*

Some internet, technology and media companies, including some of our competitors, own large numbers of patents, copyrights and trademarks, which they may use to assert claims against us. Third parties have asserted, and may in the future assert, that we have infringed, misappropriated or otherwise violated their intellectual property rights. As we grow and face increasing competition, the possibility of intellectual property rights claims against us will grow. Plaintiffs who have no relevant product revenue may not be deterred by our own issued patents and pending patent applications in bringing intellectual property rights claims against us. The cost of patent litigation or other proceedings, even if resolved in our favor, has been or could be substantial. Some of our competitors may be better able to sustain the costs of such litigation or proceedings because of their substantially greater financial resources. Patent litigation and other proceedings may also require significant management time and divert management from our business. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could impair our ability to compete in the marketplace. The occurrence of any of the foregoing could harm our business.

As a result of intellectual property infringement claims, or to avoid potential claims, we may choose or be required to seek licenses from third parties. These licenses may not be available on commercially reasonable terms, or at all. Even if we are able to obtain a license, the license would likely obligate us to pay license fees or royalties or both, and the rights granted to us might be nonexclusive, with the potential for our competitors to gain access to the same intellectual property. In addition, the rights that we secure under intellectual property licenses may not include rights to all of the intellectual property owned or controlled by the licensor, and the scope of the licenses granted to us may not include rights covering all of the products and services provided by us and our licensees. Furthermore, an adverse outcome of a dispute may require us to pay damages, potentially including treble damages and attorneys' fees, if we are found to have willfully infringed a party's intellectual property; cease making, licensing or using technologies that are alleged to infringe or misappropriate the intellectual property of others; expend additional development resources to redesign our products; enter into potentially unfavorable royalty or license agreements in order to obtain the right to use necessary technologies, content or materials; and to indemnify our partners and other third parties. In addition, any lawsuits regarding intellectual property rights, regardless of their success, could be expensive to resolve and would divert the time and attention of our management and technical personnel.

Under our agreements with many of our content publishers, licensees, distributors, retailers, contract manufacturer and suppliers, we are required to provide indemnification in the event our technology is alleged to infringe upon the intellectual property rights of third parties.*

In certain of our agreements we indemnify our content publishers, licensees, distributors, retailers, manufacturing partners and suppliers. We have in the past, and may in the future, incur significant expenses defending these partners if they are sued for patent infringement based on allegations related to our technology. If a partner were to lose a lawsuit and in turn seek indemnification from us, we also could be subject to significant monetary liabilities. In addition, because the devices sold by our licensing partners and Roku TV brands often involve the use of third-party technology, this increases our exposure to litigation in circumstances where there is a claim of infringement asserted against the streaming device in question, even if the claim does not pertain to our technology.

If we fail to protect or enforce our intellectual property or proprietary rights, our business and operating results could be harmed.

We regard the protection of our patents, trade secrets, copyrights, trademarks, trade dress, domain names and other intellectual property or proprietary rights as critical to our success. We strive to protect our intellectual property rights by relying on federal, state and common law rights, as well as contractual restrictions. We seek to protect our confidential proprietary information, in part, by entering into confidentiality agreements and invention assignment agreements with all our employees, consultants, contractors, advisors and any third parties who have access to our proprietary know-how, information or technology. However, we cannot be certain that we have executed such agreements with all parties who may have helped to develop our intellectual property or who had access to our proprietary information, nor can we be certain that our agreements will not be breached. Any party with whom we have executed such an agreement could potentially breach that agreement and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. We cannot guarantee that our trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. Detecting the disclosure or misappropriation of a trade secret and enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, time-consuming and could result in substantial costs and the outcome of such a claim is unpredictable.

Further, the laws of certain foreign countries do not provide the same level of protection of corporate proprietary information and assets such as intellectual property, trademarks, trade secrets, know-how and records as the laws of the United States. For instance, the legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection. As a result, we may encounter significant problems in protecting and defending our intellectual property or proprietary rights abroad. Additionally, we may also be exposed to material risks of theft or unauthorized reverse engineering of our proprietary information and other intellectual property, including technical data, manufacturing processes, data sets or other sensitive information. Our efforts to enforce our intellectual property rights in such foreign countries may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop, which could have a material adverse effect on our business, financial condition and results of operations. Moreover, if we are unable to prevent the disclosure of our trade secrets to third parties, or if our competitors independently develop any of our trade secrets, we may not be able to establish or maintain a competitive advantage in our market, which could harm our business.

We have filed and will in the future file patent applications on inventions that we deem to be innovative. There is no guarantee that our patent applications will issue as granted patents, that the scope of the protection gained will be sufficient or that an issued patent may subsequently be deemed invalid or unenforceable. Patent laws, and scope of coverage afforded by them, have recently been subject to significant changes, such as the change to "first-to-file" from "first-to-invent" resulting from the Leahy-Smith America Invents Act. This change in the determination of inventorship may result in inventors and companies having to file patent applications more frequently to preserve rights in their inventions, which may favor larger competitors that have the resources to file more patent applications. Another change to the patent laws may incentivize third parties to challenge any issued patent in the United States Patent and Trademark Office ("USPTO"), as opposed to having to bring such an action in U.S. federal court. Any invalidation of a patent claim could have a significant impact on our ability to protect the innovations contained within our devices and platform and could harm our business.

The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions to maintain patent applications and issued patents. We may fail to take the necessary actions and to pay the applicable fees to obtain or maintain our patents. Noncompliance with these requirements can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, competitors might be able to use our technologies and enter the market earlier than would otherwise have been the case.

We pursue the registration of our domain names, trademarks and service marks in the United States and in certain locations outside the United States. We are seeking to protect our trademarks, patents and domain names in an increasing number of jurisdictions, a process that is expensive and time-consuming and may not be successful or which we may not pursue in every jurisdiction in which we conduct business.

Litigation may be necessary to enforce our intellectual property or proprietary rights, protect our trade secrets or determine the validity and scope of proprietary rights claimed by others. Any litigation of this nature, regardless of outcome or merit, could result in substantial costs, adverse publicity or diversion of management and technical resources, any of which could adversely affect our business and operating results. If we fail to maintain, protect and enhance our intellectual property or proprietary rights, our business may be harmed.

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

Laws, regulations or court rulings that adversely affect the popularity or growth in use of the internet, including decisions that undermine open and neutrally administered internet access, could decrease customer demand for our service offerings, may impose additional burdens on us or could cause us to incur additional expenses or alter our business model.

In February 2015, the FCC adopted open internet rules intended to protect the ability of consumers and content producers to send and receive non-harmful, lawful information on the internet, known as the Open Internet Order. The Open Internet Order prohibited broadband internet access service providers from: (i) blocking access to legal content, applications, services or non-harmful devices; (ii) throttling, impairing or degrading performance based on content, applications, services or non-harmful devices; and (iii) charging more for favorable delivery of content or favoring self-provisioned content over third-party content (collectively, the “prohibited activities”). The Open Internet Order also prohibited broadband internet access service providers from unreasonably interfering with consumers’ ability to select, access and use the lawful content, applications, services or devices of their choosing as well as edge providers’ ability to make lawful content, applications, services or devices available to consumers.

In January 2018, the FCC released a new order, known as the Restoring Internet Freedom Order (the “Order”), that repealed most of the blocking, throttling, and paid prioritization restrictions adopted in the Open Internet Order. The Order reclassified broadband internet access service as a non-common carrier “information service” and repealed rules that had prohibited broadband internet access service providers from conducting the “prohibited activities” but continued to require broadband internet access service providers to be transparent about their policies and network management practices, and subjected discriminatory practices to case-by-case assessment under antitrust and consumer protection laws. Most portions of the Order went into effect in April 2018 and the remainder went into effect in June 2018. Numerous judicial challenges to the Order were filed, and in October 2019, the Court of Appeals for the District of Columbia Circuit upheld nearly all of the Order, but reversed the FCC's decision to prohibit all state and local regulation targeted at broadband internet access service, requiring case by case determinations as to whether state and local regulation conflicts with the FCC's rules. The court also required the FCC to reexamine three issues from the Order but allowed the Order to remain in effect pending the FCC’s review. The original parties were denied a rehearing by the full U.S. Court of Appeals for the D.C. Circuit in February 2020 and the period to seek review by the Supreme Court has ended. To the extent the courts, the agencies or the states do not uphold or adopt sufficient safeguards to protect against discriminatory conduct, network operators may seek to extract fees from us or our content publishers to deliver our traffic or otherwise engage in blocking, throttling or other discriminatory practices, and our business could be harmed.

Several states have adopted or are considering network neutrality legislation or regulation. For example, California’s legislation codifies portions of the FCC’s rescinded Open Internet Order. The U.S. Department of Justice filed suit in September 2018 to block implementation of the California law, and several broadband service provider trade associations also have sued California to invalidate its net neutrality law on grounds that the law is preempted by the Order, among other claims. The status of the preemption claim is uncertain in light of the Court of Appeals decision on the FCC’s preemption authority. The California Attorney General agreed to delay implementation of the law until the litigation is resolved. Several states have enacted net neutrality legislation and governors in several other states have signed executive orders requiring broadband internet access service providers contracting with state agencies to adhere to network neutrality principles. The regulatory framework for network neutrality thus remains unsettled and is subject to ongoing Federal and state legislative and regulatory activity. Moreover, the FCC's legal authority and willingness to preempt state net neutrality laws on a case-by-case basis remain unsettled. If the FCC preempts individual state net neutrality laws that prohibit blocking, throttling, and other discriminatory practices, our business could be harmed.

As we expand internationally, government regulation protecting the non-discriminatory provision of internet access may be nascent or non-existent. In those markets where regulatory safeguards against unreasonable discrimination are nascent or non-existent and where local network operators possess substantial market power, we could experience anti-competitive practices that could impede our growth, cause us to incur additional expenses or otherwise harm our business. Future regulations or changes in laws and regulations or their existing interpretations or applications could also hinder our operational flexibility, raise compliance costs and result in additional liabilities for us, which may harm our business.

Broadband internet providers are subject to government regulation and enforcement actions, and changes in current or future laws, regulations or enforcement actions that negatively impact our distributors or content publishers could harm our business.

Upon the effective date of the FCC's Restoring Internet Freedom Order, the FTC became the federal agency primarily responsible for regulating broadband privacy and data security in the United States. The FTC follows an enforcement-focused approach to regulating broadband privacy and security. Future FTC enforcement actions could cause us or our content publishers to alter advertising claims or alter or eliminate certain features or functionalities of our products or services which may harm our business. At the FCC, many broadband internet providers provide traditional telecommunications services that are subject to FCC and state rate regulation of intrastate telecommunications services, and are recipients of federal universal service fund payments, which are intended to subsidize telecommunications services in areas that are expensive to serve. Changes in rate regulations or in universal service funding rules, either at the federal or state level, could affect these broadband internet providers' revenue and capital spending plans. In addition, various international regulatory bodies have jurisdiction over non-United States broadband internet providers. The Nevada SPI Law and the CCPA also apply to broadband internet providers that do business in Nevada and California, respectively. To the extent these broadband internet providers are adversely affected by laws or regulations regarding their business, products or service offerings, our business could be harmed.

If we are found liable for content that is distributed through or advertising that is served through our platform, our business could be harmed.*

As a distributor of content, we face potential liability for negligence, copyright, patent or trademark infringement, public performance royalties or other claims based on the nature and content of materials that we distribute. The Digital Millennium Copyright Act (the "DMCA") is intended, in part, to limit the liability of eligible service providers for caching, hosting or linking to, user content that includes materials that infringe copyrights or other rights. We rely on the protections provided by the DMCA in conducting our business. Similarly, Section 230 of the Communications Decency Act ("Section 230") protects online distribution platforms, such as ours, from actions taken under various laws that might otherwise impose liability on the platform provider for what content creators develop or the actions they take or inspire.

However, the DMCA, Section 230, and similar statutes and doctrines that we may rely on in the future are subject to uncertain judicial interpretation and regulatory and legislative amendments. In May 2020, the U.S. Copyright Office released a report proposing several legislative changes that would alter the DMCA's liability protections and alter the notice-and-takedown system. Also in May 2020, the White House released Executive Order 13925, which, among other things, directs the National Telecommunications and Information Administration to file a petition for rulemaking with the FCC that may limit the scope of protection provided under Section 230. In June 2020, the U.S. Department of Justice proposed a number of legislative changes to Section 230 intended to limit the scope of protection provided under Section 230. These or other regulatory or legislative changes may ultimately require us to take a more active approach towards content moderation on our platform, which could diminish the depth, breadth, and variety of content we offer and, in so doing, reduce our advertising revenue.

Moreover, the DMCA and Section 230 provide protections primarily in the United States. If the rules around these statutes and doctrines change, if international jurisdictions refuse to apply similar protections or if a court were to disagree with our application of those rules to our business, we could incur liability and our business could be harmed. If we become liable for these types of claims as a result of the content that is streamed over or the advertisements that are served through our platform, then our business may suffer. Litigation to defend these claims could be costly and the expenses and damages arising from any liability could harm our business. Our insurance may not be adequate to cover these types of claims or any liability that may be imposed on us.

In addition, regardless of any legal protections that may limit our liability for the actions of third parties, we may be adversely impacted if copyright holders assert claims, or commence litigation, alleging copyright infringement against the developers of channels that are distributed on our platform. While our platform policies prohibit streaming content on our platform without distribution rights from the copyright holder, and we maintain processes and systems for the reporting and removal of infringing content, in certain instances our platform has been misused by unaffiliated third parties to unlawfully distribute copyrighted content. If content owners or distributors are influenced by the existence of types of claims or proceedings and are deterred from working with us as a consequence, this could impair our ability to maintain or expand our business, including through international expansion plans.

Our involvement in any such legal matters now or in the future, could cause us to incur significant legal expenses and other costs, and be disruptive to our business.

Our streaming devices are technically complex and may contain undetected hardware errors or software bugs, which could manifest themselves in ways that could harm our reputation and our business.*

Our streaming devices and those of our licensees are technically complex and have contained and may in the future contain undetected software bugs or hardware errors. These bugs and errors can manifest themselves in any number of ways in our devices or our streaming platform, including through diminished performance, security vulnerabilities, data quality in logs or interpretation of data, malfunctions or even permanently disabled devices. Some errors in our devices may only be discovered after a device has been shipped and used by users and may in some cases only be detected under certain circumstances or after extended use. We also update the Roku OS and our software on a regular basis, and, despite our quality assurance processes, we could introduce bugs in the process of any such update. The introduction of a serious software bug could result in devices becoming permanently disabled. We offer a limited one-year warranty in the United States and any such defects discovered in our devices after commercial release could result in loss of revenue or delay in revenue recognition, loss of customer goodwill and users and increased service costs, any of which could harm our business, operating results and financial condition. We could also face claims for product or information liability, tort or breach of warranty, or other violations of laws or regulations. In addition, our contracts with users contain provisions relating to warranty disclaimers and liability limitations, which may not be upheld. Defending a lawsuit, regardless of its merit, is costly and may divert management's attention and adversely affect the market's perception of Roku and our products. In addition, if our insurance coverage proves inadequate or future coverage is unavailable on acceptable terms or at all, our business could be harmed.

Components used in our products may fail as a result of manufacturing, design or other defects over which we have no control and render our devices permanently inoperable.

We rely on third-party component suppliers to provide certain functionalities needed for the operation and use of our products. Any errors or defects in such third-party technology could result in errors in our products that could harm our business. If these components have a manufacturing, design or other defect, they can cause our products to fail and render them permanently inoperable. For example, the typical means by which our users connect their home networks to our players is by way of a Wi-Fi access point in the home network router. If the Wi-Fi receiver in our player fails, then our player cannot detect a home network's Wi-Fi access point, and our player will not be able to display or deliver any content to the TV screen. As a result, we may have to replace these players at our sole cost and expense. Should we have a widespread problem of this kind, our reputation in the market could be adversely affected and our replacement of these players would harm our business.

If we experience higher player returns than we expect and are unable to resell such returned players as refurbished players, our business could be harmed.

We offer customers who purchase players through our website 30 days to return such players. We also generally honor the return policies of our retail and distribution partners, who typically allow customers to return players, even with open packaging within certain time periods that may exceed 30 days. We generally resell any returned players as refurbished players. To the extent we experience a greater number of returns than we expect, are unable to resell returned players as refurbished players, or are required to provide price protection in amounts greater than we expect, our business could be harmed.

If we are unable to obtain necessary or desirable third-party technology licenses, our ability to develop new streaming players or platform enhancements may be impaired.

We utilize commercially available off-the-shelf technology in the development of our players and streaming platform. As we continue to introduce new features or improvements to our players and our streaming platform, we may be required to license additional technologies from third parties. These third-party licenses may be unavailable to us on commercially reasonable terms, if at all. If we are unable to obtain necessary third-party licenses, we may be required to obtain substitute technologies with lower quality or performance standards, or at a greater cost, any of which could harm the competitiveness of our players, streaming platform and our business.

Our use of open source software could impose limitations on our ability to commercialize our devices and our streaming platform.

We incorporate open source software in our streaming platform. From time to time, companies that incorporate open source software into their products and services have faced claims challenging the ownership of open source software and/or compliance with open source license terms. Therefore, we could be subject to suits by parties claiming ownership of what we believe to be open source software or noncompliance with open source licensing terms. Although we monitor our use of open source software, the terms of many open source software licenses have not been interpreted by U.S. courts, and there is a risk that such licenses could be construed in a manner that could impose unanticipated conditions or restrictions on the sale of our devices. In such event, we could be required to make our proprietary software generally available to third parties, including competitors, at no cost, to seek licenses from third parties in order to continue offering our devices, to re-engineer our devices or to discontinue the sale of our devices in the event re-engineering cannot be accomplished on a timely basis or at all, any of which could harm our business.

The quality of our customer support is important to our users and licensees, and, if we fail to provide adequate levels of customer support, we could lose users and licensees, which would harm our business.

Our users and licensees depend on our customer support organization to resolve any issues relating to our devices. A high level of support is critical for the successful marketing and sale of our devices. We currently outsource our customer support operation to a third-party customer support organization. If we do not effectively train, update and manage our third-party customer support organization to assist our users, and if that support organization does not succeed in helping them quickly resolve issues or provide effective ongoing support, it could adversely affect our ability to sell our devices to users and harm our reputation with potential new users and our licensees.

If we fail to maintain effective internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our Class A common stock may be adversely affected.

We are required to maintain internal control over financial reporting and to report any material weaknesses in such internal control. Section 404 of the Sarbanes-Oxley Act of 2002 (“Section 404”) requires that we furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting. This assessment must include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. Our independent registered public accounting firm also attests to the effectiveness of our internal control over financial reporting. If we have a material weakness in our internal control over financial reporting in the future, we may not detect errors on a timely basis and our financial statements may be materially misstated. If we identify material weaknesses in our internal control over financial reporting, are unable to continue to comply with the requirements of Section 404 in a timely manner, are unable to assert that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports, and the market price of our Class A common stock could be adversely affected. In addition, we could become subject to investigations by the stock exchange on which our Class A common stock is listed, the SEC, or other regulatory authorities, which could require additional financial and management resources.

Our financial results may be adversely affected by changes in accounting principles applicable to us.

U.S. GAAP are subject to interpretation by the FASB, the SEC, and other various bodies formed to promulgate and interpret appropriate accounting principles. A change in these principles or interpretations could have a significant effect on our reported results of operations and may even affect the reporting of transactions completed before the announcement or effectiveness of a change. For example, we adopted Accounting Standards Codification, *Revenue from Contracts with Customers (Topic 606)* (“ASC 606”), using the modified retrospective method. We applied the revenue standard to all contracts that were not completed as of January 1, 2018. We recognized the cumulative effect of initially applying the revenue standard as an adjustment to the opening balance of retained earnings. The comparative information has not been restated and continues to be reported under the accounting standards in effect for the prior periods. It is difficult to predict the impact of future changes to accounting principles or our accounting policies, any of which could harm our business.

We may pursue acquisitions, which involve a number of risks, and if we are unable to address and resolve these risks successfully, such acquisitions could harm our business.*

In November 2019 we acquired dataxu and may in the future acquire businesses, products or technologies to expand our offerings and capabilities, user base and business. We have evaluated, and expect to continue to evaluate, a wide array of potential strategic transactions; however, we have limited experience completing or integrating acquisitions. Any acquisition could be material to our financial condition and results of operations and any anticipated benefits from an acquisition may never materialize. Acquisitions could also result in dilutive issuances of equity securities or the incurrence of debt, which could adversely affect our operating results, may cause unfavorable accounting treatment, may expose us to claims and disputes by third parties, including intellectual property claims, and may not generate sufficient financial returns to offset additional costs and expenses related to the acquisitions. In addition, the process of integrating acquired businesses, products or technologies may create unforeseen operating difficulties and expenditures. Acquisitions of businesses, products or technologies in international markets would involve additional risks, including those related to integration of operations across different cultures and languages, currency risks and the particular economic, political and regulatory risks associated with specific countries. We may not be able to address these risks successfully, or at all, without incurring significant costs, delays or other operational problems and if we were unable to address such risks successfully our business could be harmed.

We have outstanding debt and our credit facility provides our lender with a first-priority lien against substantially all of our assets and contains financial covenants and other restrictions on our actions that may limit our operational flexibility or otherwise adversely affect our financial condition.*

We entered into a credit agreement among us, as borrower, the lenders and issuing banks from time to time party thereto, and Morgan Stanley Senior Funding, Inc., or the Agent providing for a (i) a four-year revolving credit facility in the aggregate principal amount of up to $100.0 million, (the “Revolving Credit Facility”), (ii) a four-year delayed draw term loan A facility in the aggregate principal amount of up to $100.0 million, (the “Term Loan A Facility”) and (iii) an uncommitted incremental facility subject to certain conditions (collectively, the “Credit Agreement”). The Credit Agreement contains a number of affirmative and negative covenants, which may restrict our current and future operations, particularly our ability to respond to certain changes in our business or industry or take future actions. The Credit Agreement also contains a financial covenant requiring us to maintain a minimum adjusted quick ratio of at least 1.00 to 1.00, tested as of the last day of any fiscal quarter on the basis of the prior period of our four consecutive fiscal quarters. Pursuant to the Credit Agreement, we granted the Agent a security interest in substantially all of our assets. See the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Senior Secured Term Loan A and Revolving Credit Facilities.”

In November 2019, we borrowed $100.0 million aggregate principal amount pursuant to the Term Loan A Facility and in March 2020, we borrowed $69.3 million aggregate principal amount of revolving loans pursuant to the Revolving Credit Facility. In May 2020, we entered into the Equity Distribution Agreement, pursuant to which we sold 3.0 million shares of our Class A common stock at an average selling price of $117.98 per share, for aggregate gross proceeds of $354.4 million, a portion of which was used to repay the $69.3 million outstanding under our Revolving Credit Facility. We also have outstanding letters of credit as of June 30, 2020 totaling $29.8 million against the Credit Facility.

As of June 30, 2020, we were in compliance with all of the financial covenants of the Credit Agreement. However, if we fail to comply with the covenants, make payments as specified in the Credit Agreement, or undergo any other event of default contained in the Credit Agreement, the Agent could declare an event of default, which would give it the right to terminate the commitments to provide additional loans and declare any borrowings outstanding, together with accrued and unpaid interest and fees, to be immediately due and payable. In addition, the Agent would have the right to proceed against the assets we provided as collateral pursuant to the Credit Agreement. If the outstanding debt under the Credit Agreement is accelerated, we may not have sufficient cash or be able to sell sufficient assets to repay it, which would harm our business and financial condition.

When we borrowed pursuant to the Credit Facility, we choose LIBOR as the benchmark for establishing the applicable interest rate. LIBOR is the subject of recent national, international and other regulatory guidance and proposals for reform which may cause LIBOR to cease to exist, establish new methods of calculating LIBOR, or replace LIBOR with an alternative reference rate(s). The consequences of these developments cannot be entirely predicted and could have an adverse impact on the value of our LIBOR-linked financial obligations, such as an increase in the cost of our credit agreement indebtedness.

If we fail to comply with the laws and regulations relating to the collection of sales tax and payment of income taxes in the various jurisdictions in which we do business, we could be exposed to unexpected costs, expenses, penalties and fees as a result of our noncompliance, which could harm our business.

By engaging in business activities in the United States, we become subject to various jurisdiction laws and regulations, including requirements to collect sales tax from our sales within those jurisdictions, and the payment of income taxes on revenue generated from activities in those jurisdictions. The laws and regulations governing the collection of sales tax for sales on our website and payment of income taxes are numerous, complex, and vary by jurisdiction. A successful assertion by one or more jurisdictions that we were required to collect sales or other taxes or to pay income taxes where we did not could result in substantial tax liabilities, fees and expenses, including substantial interest and penalty charges, which could harm our business.

New legislation that would change U.S. or foreign taxation of international business activities or other tax-reform policies could harm our business.*

Reforming the taxation of international businesses has been a priority for U.S. politicians, and key members of the legislative and executive branches, and a wide variety of changes has been proposed or enacted. Certain changes to U.S. tax laws could affect the tax treatment of our foreign earnings, as well as cash and cash equivalent balances we maintain outside the United States. Additionally, any changes in the U.S. or foreign taxation of such activities may increase our worldwide effective tax rate and the amount of taxes we pay and harm our business.

Legislation enacted in 2017, informally titled the Tax Cuts and Jobs Act (“TCJA”), as modified by legislation enacted on March 27, 2020, entitled the Coronavirus Aid, Relief, and Economic Security Act (“CARES Act”), significantly reformed the Internal Revenue Code of 1986, as amended. The TCJA, as modified by the CARES Act, alters U.S. federal tax rates, imposes additional limitations on the deductibility of interest, allows for the expensing of certain capital expenditures, and puts into effect the migration from a “worldwide” system of taxation to a territorial system. Additionally, the TCJA, as modified by the CARES Act, has both positive and negative changes to the utilization of future net operating loss carryforwards. For example, U.S. federal NOLs incurred in taxable years beginning after December 31, 2017, can be carried forward indefinitely, but the deductibility of such U.S. federal NOLs in taxable years beginning after December 31, 2020 is limited to 80% of taxable income. The U.S. Department of Treasury has broad authority to issue regulations and interpretative guidance that may significantly impact how we will apply the law, which could affect our financial position and result of operations. It is uncertain if and to what extent various states will conform to the TCJA and the CARES Act.

In addition, an increasing number of jurisdictions are considering or have adopted laws or administrative practices that impose new tax measures, including revenue-based taxes targeting online commerce, digital services, and the remote selling of goods and services. These include new obligations to collect sales, consumption, value added, or other taxes on online marketplaces and remote sellers, or other requirements that may result in liability for third-party obligations. For example, the EU, certain member states, and other countries have proposed or enacted taxes on digital advertising and marketplace service revenue. Our results of operations and cash flows could be adversely affected by additional taxes of this nature imposed on us prospectively or retroactively or additional taxes or penalties resulting from the failure to comply with any collection obligations. The United States has threatened to impose retaliatory duties under Section 301 of the Trade Act of 1974 on imports from countries that adopt DSTs, which could result in increased trade tensions and potential retaliation by foreign governments against U.S. digital services or technologies.

We continue to examine the impact these and other tax reforms may have on our business. The impact of these and other tax reforms is uncertain and one or more of these or similar measures could seriously harm our business.

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

We intend to continue to make significant investments to support planned business growth and may require additional funds to respond to business challenges, including the need to develop new devices and enhance our streaming platform, maintain adequate levels of inventory to support our retail partners’ demand requirements, improve our operating infrastructure or acquire complementary businesses, personnel and technologies. Our primary uses of cash include operating costs such as personnel-related expenses and capital spending. Our future capital requirements may vary materially from those currently planned and will depend on many factors including our growth rate and the continuing market acceptance of our streaming platform, the Roku OS and players along with the timing and effort related to the introduction of new platform features, players, hiring of experienced personnel, the expansion of sales and marketing activities, as well as overall economic conditions. For example, we entered into lease agreements for a corporate headquarters, and we started to incur material expenses during 2019. On November 8, 2019 we acquired dataxu for aggregate consideration of $77.6 million in cash and 571,459 shares of our Class A common stock.

We may need to engage in equity or debt financings to secure additional funds. If we raise additional funds through future issuances of equity or convertible debt securities, our then existing stockholders could suffer significant dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our Class A common stock. Any debt financing we secure could involve additional restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. If we were to violate such restrictive covenants, we could incur penalties, increased expenses and an acceleration of the payment terms of our outstanding debt, which could in turn harm our business.

We may not be able to obtain additional financing on terms favorable to us, if at all. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, our ability to continue to support our business growth and to respond to business challenges could be significantly impaired, and our business may be harmed.

Natural disasters or other catastrophic events could disrupt and impact our business.*

Occurrence of any catastrophic event, including earthquake, flood, tsunami or other weather event, power loss, internet failure, software or hardware malfunctions, cyber-attack, war, terrorist attack, medical epidemic or pandemic (such as the COVID-19 pandemic), other man-made disasters or other catastrophic events could disrupt our business operations. Any of these business disruptions could require substantial expenditures and recovery time in order to fully resume operations. In particular, our principal offices are located in California, our contract manufacturer and some of our suppliers are located in Asia both of which are regions known for seismic activity making our operations in these areas vulnerable to natural disasters or other business disruptions in these areas. Our insurance coverage may not compensate us for losses that may occur in the event of an earthquake or other significant natural disaster. In addition, acts of terrorism could cause disruptions to the internet or the economy as a whole. If our streaming platform was to fail or be negatively impacted as a result of a natural disaster or other event, our ability to deliver streaming content, including advertising, to our users would be impaired. Disruptions in the operations of our contract manufacturer as a result of a disaster or other catastrophic event could delay the manufacture and shipment of our players or other products, which could impact our business. If we are unable to develop adequate plans to ensure that our business functions continue to operate during and after a disaster or other catastrophic event and to execute successfully on those plans in the event of a disaster or catastrophic event, our business would be harmed.

Risks Related to Ownership of Our Class A Common Stock

The dual class structure of our common stock as contained in our amended and restated certificate of incorporation has the effect of concentrating voting control with those stockholders who held our stock prior to our initial public offering, including our executive officers, employees and directors and their affiliates, and limiting your ability to influence corporate matters.*

Our Class B common stock has 10 votes per share, and our Class A common stock has one vote per share. Our President and Chief Executive Officer, Anthony Wood, holds and controls the vote of a significant number of shares of our outstanding common stock, and therefore Mr. Wood will have significant influence over our management and affairs and over all matters requiring stockholder approval, including election of directors and significant corporate transactions, such as a merger or other sale of Roku or our assets, for the foreseeable future. If Mr. Wood’s employment with us is terminated, he will continue to have the same influence over matters requiring stockholder approval.

In addition, the holders of Class B common stock collectively will continue to be able to control all matters submitted to our stockholders for approval even if their stock holdings represent less than 50% of the outstanding shares of our common stock. Because of the 10-to-1 voting ratio between our Class B and Class A common stock, the holders of our Class B common stock collectively will continue to control a majority of the combined voting power of our common stock even when the shares of Class B common stock represent as little as 10% of all outstanding shares of our Class A and Class B common stock. This concentrated control will limit your ability to influence corporate matters for the foreseeable future, and, as a result, the market price of our Class A common stock could be adversely affected.

Future transfers by holders of Class B common stock will generally result in those shares converting to Class A common stock, which will have the effect, over time, of increasing the relative voting power of those holders of Class B common stock who retain their shares in the long term. As a result of such transfers, as of June 30, 2020, Mr. Wood controls a majority of the combined voting power of our Class A and Class B common stock even though he only owns 15.0% of the outstanding Class A and Class B common stock. As a board member, Mr. Wood owes a fiduciary duty to our stockholders and must act in good faith in a manner he reasonably believes to be in the best interests of our stockholders. As a stockholder, even a controlling stockholder, Mr. Wood is entitled to vote his shares in his own interests, which may not always be in the interests of our stockholders generally. This concentrated control could delay, defer, or prevent a change of control, merger, consolidation, or sale of all or substantially all of our assets that our other stockholders support, or conversely this concentrated control could result in the consummation of such a transaction that our other stockholders do not support. This concentrated control could also discourage a potential investor from acquiring our Class A common stock, which has limited voting power relative to the Class B common stock and might harm the trading price of our Class A common stock.

We have not elected to take advantage of the "controlled company" exemption to the corporate governance rules for companies listed on The Nasdaq Global Select Market.

The trading price of our Class A common stock has been, and may continue to be, volatile, and the value of our Class A common stock may decline.

The market price of our Class A common stock has been and may continue to be subject to wide fluctuations in response to numerous factors, many of which are beyond our control, including:

- actual or anticipated fluctuations in our financial condition and operating results;
- changes in projected operational and financial results;
- loss by us of key content publishers;
- changes in laws or regulations applicable to our devices or platform;
- the commencement or conclusion of legal proceedings that involve us;
- actual or anticipated changes in our growth rate relative to our competitors;
- announcements of new products or services by us or our competitors;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures or
- capital-raising activities or commitments;
- additions or departures of key personnel;
- issuance of new or updated research or reports by securities analysts;
- the use by investors or analysts of third-party data regarding our business that may not reflect our financial performance;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- sales of our Class A common stock;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares; and
- general economic and market conditions.

Furthermore, the stock markets frequently experience extreme price and volume fluctuations that affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, elections, interest rate changes or international currency fluctuations, may negatively impact the market price of our Class A common stock. As a result of such fluctuations, you may not realize any return on your investment in us and may lose some or all of your investment. In the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future, which could result in substantial costs and divert our management's attention from other business concerns.

Future sales and issuances of our capital stock or rights to purchase capital stock could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to decline.

We may issue additional securities in the future and from time to time. Future sales and issuances of our capital stock or rights to purchase our capital stock could result in substantial dilution to our existing stockholders. We may sell or issue Class A common stock, convertible securities and other equity securities in one or more transactions at prices and in a manner as we may determine from time to time. If we sell any such securities in subsequent transactions, investors may be materially diluted. New investors in such subsequent transactions could gain rights, preferences and privileges senior to those of holders of our Class A common stock.

Future sales of shares by existing stockholders could cause our stock price to decline.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our Class A common stock in the public market, the trading price of our Class A common stock could decline. All of our outstanding Class A shares are eligible for sale in the public market, other than shares and options exercisable held by directors, executive officers and other affiliates that are subject to volume limitations under Rule 144 of the Securities Act. In addition, we have reserved shares for future issuance under our equity incentive plan. Our employees, other service providers, and directors are subject to our quarterly trading window, which generally opens at the start of the second full trading day after the public dissemination of our annual or quarterly financial results and closes (i) with respect to the first, second and third quarter of each year, at the end of the fifteenth day of the last month of the such quarter and (ii) with respect to the fourth quarter of each year, at the end of the trading day on the Wednesday before Thanksgiving. These employees, service providers and directors may also sell shares during a closed window periods pursuant to trading plans that comply with the requirements of Rule 10b5-1(c)(1) under the Exchange Act. When these shares are issued and subsequently sold, it would be dilutive to existing stockholders and the trading price of our Class A common stock could decline.

If securities or industry analysts do not publish research or publish unfavorable research about our business or if they downgrade our stock, our stock price and trading volume could decline.

A limited number of equity research analysts provide research coverage of our Class A common stock, and we cannot assure you that such equity research analysts will adequately provide research coverage of our Class A common stock. A lack of adequate research coverage may adversely affect the liquidity and market price of our Class A common stock. If securities or industry analysts cover our company and one or more of these analysts downgrades our stock or issues other unfavorable commentary or research, the price of our Class A common stock could decline. If one or more equity research analysts cease coverage of our company, or fail to publish reports on us regularly, demand for our stock could decrease, which in turn could cause our stock price or trading volume to decline.

We incur costs and demands upon management as a result of complying with the laws and regulations affecting public companies in the United States, which may harm our business.

As a public company listed in the United States, we incur significant legal, accounting and other expenses. In addition, changing laws, regulations and standards relating to corporate governance and public disclosure, including regulations implemented by the SEC and The Nasdaq Global Select Market, may increase legal and financial compliance costs and make some activities more time consuming. These laws, regulations and standards are subject to varying interpretations and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. If, notwithstanding our efforts, we fail to comply with new laws, regulations and standards, regulatory authorities may initiate legal proceedings against us, and our business may be harmed.

Failure to comply with these rules might also make it more difficult for us to obtain certain types of insurance, including director and officer liability insurance, and we might be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these events could also make it more difficult for us to attract and retain qualified persons to serve on our Board of Directors, on committees of our Board of Directors or as members of senior management.

We do not intend to pay dividends in the foreseeable future.

We have never declared or paid any cash dividends on our Class A or Class B common stock and do not intend to pay any cash dividends in the foreseeable future. We anticipate that we will retain all of our future earnings to grow our business and for general corporate purposes. Moreover, our outstanding Credit Agreement contains prohibitions on the payment of cash dividends on our capital stock. Accordingly, investors must rely on sales of their Class A common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments.

Provisions in our corporate charter documents and under Delaware law may prevent or frustrate attempts by our stockholders to change our management or hinder efforts to acquire a controlling interest in us, and the market price of our Class A common stock may be lower as a result.

There are provisions in our certificate of incorporation and bylaws that may make it difficult for a third-party to acquire, or attempt to acquire, control of Roku, even if a change in control was considered favorable by our stockholders.

Our charter documents also contain other provisions that could have an anti-takeover effect, such as:

- establishing a classified Board of Directors so that not all members of our Board of Directors are elected at one time;
- permitting the Board of Directors to establish the number of directors and fill any vacancies and newly created directorships;
- providing that directors may only be removed for cause;
- prohibiting cumulative voting for directors;
- requiring super-majority voting to amend some provisions in our certificate of incorporation and bylaws;
- authorizing the issuance of “blank check” preferred stock that our Board of Directors could use to implement a stockholder rights plan;
- eliminating the ability of stockholders to call special meetings of stockholders;
- prohibiting stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders; and
- reflecting our two classes of common stock as described above.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which prohibit a person who owns 15% or more of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner. Any provision in our certificate of incorporation or our bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our Class A common stock and could also affect the price that some investors are willing to pay for our Class A common stock.

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

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for the following types of actions or proceedings under Delaware statutory or common law:

- any derivative action or proceeding brought on our behalf;
- any action asserting a breach of fiduciary duty;
- any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation or our bylaws;
- or any action asserting a claim against us that is governed by the internal affairs doctrine.

This provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims.

To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our amended and restated certificate of incorporation further provides that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. In December 2018, the Delaware Chancery Court issued a ruling invalidating such provision, which we appealed to the Supreme Court of the State of Delaware. In March 2020, the Supreme Court of the State of Delaware reversed the ruling of the Delaware Chancery Court and held that the federal forum provision in our amended and restated certificate of incorporation is facially valid. The plaintiffs in the case have 150 days from April 24, 2020 to seek review of the Delaware Supreme Court’s decision by filing a petition for *certiorari* in the Supreme Court of the United States.

While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions. In such instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of our amended and restated certificate of incorporation. This may require significant additional costs associated with resolving such action in other jurisdictions and there can be no assurance that the provisions will be enforced by a court in those other jurisdictions.

These exclusive-forum provisions, if permitted by applicable law, may limit a stockholder’s ability to bring a claim in a judicial forum that it finds favorable for certain disputes with us or our directors, officers or other employees, which may discourage lawsuits against us and our directors, officers and other employees. If a court were to find either exclusive-forum provision in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur further significant additional costs associated with resolving such action in other jurisdictions, all of which could harm our business.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

None.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

		Incorporation by reference			
Exhibit Number	Description	Form	SEC File No.	Exhibit	Filing Date
3.1	Amended and Restated Certificate of Incorporation of Roku, Inc.	8-K	001-38211	3.1	10/03/2017
3.2	Amended and Restated Bylaws of Roku, Inc.	S-1	333-220318	3.4	9/01/2017
4.1	Reference is made to Exhibits 3.1 through 3.2.				
4.2	Form of Class A common stock certificate.	S-1/A	333-220318	4.1	9/18/2017
10.1#	Roku, Inc. Amended and Restated Severance Benefit Plan	8-K	001-38211	99.1	7/16/2019
10.2	Equity Distribution Agreement, dated May 13, 2020, by and among Roku, Inc., Morgan Stanley & Co. LLC and Citigroup Global Markets Inc.	8-K	001-38211	1.1	5/13/2020
31.1*	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
31.2*	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
32.1**	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
32.2**	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
101.INS*	Inline XBRL Instance Document- the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.				
101.SCH*	Inline XBRL Taxonomy Extension Schema Document				
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document				
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document				
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document				
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document				
104	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, has been formatted in Inline XBRL.				

# Indicates management contract or compensatory plan, contract or agreement.

* Filed herewith.

** These exhibits are furnished with this Quarterly Report on Form 10-Q and are not deemed filed with the Securities and Exchange Commission and are not incorporated by reference in any filing of Roku, Inc. under the Securities Act of 1933, as amended, or the Securities and Exchange Act of 1934, as amended, whether made before or after the date hereof and irrespective of any general incorporation language contained in such filings.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

		Roku, Inc.
Date: August 7, 2020	By:	/s/ Anthony Wood
		Anthony Wood President and Chief Executive Officer (Principal Executive Officer)
Date: August 7, 2020	By:	/s/ Steve Louden
		Steve Louden Chief Financial Officer (Principal Financial and Accounting Officer)

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Anthony Wood, certify that:

1) I have reviewed this Quarterly Report on Form 10-Q of Roku, 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 officers 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 officers 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: August 7, 2020

By: /s/ Anthony Wood
Anthony Wood
President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Steve Louden, certify that:

1) I have reviewed this Quarterly Report on Form 10-Q of Roku, 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 officers 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 officers 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: August 7, 2020

By: /s/ Steve Louden
Steve Louden
Chief Financial Officer

Exhibit 32.1

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

I, Anthony Wood, do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

The Quarterly Report on Form 10-Q of Roku, Inc. for the quarter ended June 30, 2020, as filed with the Securities and Exchange Commission (the "Report"), fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

The information contained in such Quarterly Report on Form 10-Q fairly presents in all material respects, the financial condition and results of operations of Roku, Inc.

Date: August 7, 2020	By:	/s/ Anthony Wood
		Anthony Wood
		President and Chief Executive Officer

Exhibit 32.2

CERTIFICATION OF 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, Steve Louden, do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

The Quarterly Report on Form 10-Q of Roku, Inc. for the quarter ended June 30, 2020, as filed with the Securities and Exchange Commission (the "Report"), fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

The information contained in such Quarterly Report on Form 10-Q fairly presents in all material respects, the financial condition and results of operations of Roku, Inc.

Date: August 7, 2020	By:	/s/ Steve Louden
		Steve Louden
		Chief Financial Officer