ZYNGA INC
Form 10-Q
August 03, 2018

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended June 30, 2018

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: 001-35375

Zynga Inc.

(Exact name of registrant as specified in its charter)

Delaware	42-1733483
(State of or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
699 Eighth Street San Francisco, CA	94103
(Address of principal executive offices)	(Zip Code)

(855) 449-9642

(Registrant's telephone number, including area code)

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

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

Large accelerated filer		Accelerated filer
Non-accelerated filer	(Do not check if a smaller reporting company)	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 Exchange Act Rule 12b-2). Yes No

As of July 15, 2018, there were 860,181,542 shares of the Registrant's Class A common stock outstanding.

Zynga Inc.

Form 10-Q Quarterly Report

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Zynga, the Zynga logo and other trademarks or service marks of Zynga appearing in this report are the property of Zynga. Trade names, trademarks and service marks of other companies appearing in this report are the property of their respective holders.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward looking statements reflecting our current expectations that involve risks and uncertainties. These forward-looking statements include, but are not limited to, statements related to industry prospects, our future economic performance including anticipated revenues and expenditures, results of operations or financial position, and other financial items, our business plans and objectives, including our growth strategies and intended product releases, and may include certain assumptions that underlie the forward-looking statements. Forward-looking statements often include words such as “outlook,” “projected,” “intends,” “will,” “anticipate,” “believe,” “target,” “expect,” and statements in the future tense are generally forward-looking.

We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives, and financial needs. The achievement or success of the matters covered by such forward-looking statements involves significant risks, uncertainties and assumptions, including those described in “Part II. Item 1A. Risk Factors” of this Quarterly Report on Form 10-Q. Moreover, we operate in a very competitive and rapidly changing environment and industry. New risks may also emerge from time to time. It is not possible for our management to predict all of the risks related to our business and operations, 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 materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this Quarterly Report on Form 10-Q may not occur and actual results could differ materially and adversely from those anticipated, predicted or implied in the forward-looking statements.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur, and reported results should not be considered as an indication of future performance. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements.

Except as required by law, we undertake no obligation to update any forward-looking statements for any reason to conform these statements to actual results or to changes in our expectations.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements (Unaudited)

Zynga Inc.

Consolidated Balance Sheets

(In thousands, except par value)

(Unaudited)

	June 30, 2018	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$ 210,177	$ 372,870
Short-term investments	182,002	308,506
Accounts receivable, net of allowance of $0 at June 30, 2018 and December 31, 2017	99,970	103,677
Restricted cash	10,006	12,807
Prepaid expenses	27,239	24,253
Other current assets	11,736	8,837
Total current assets	541,130	830,950
Goodwill	949,258	730,464
Intangible assets, net	137,172	64,258
Property and equipment, net	264,245	266,589
Restricted cash	25,000	20,000
Prepaid expenses	21,794	23,821
Other non-current assets	47,274	43,251
Total assets	$ 1,985,873	$ 1,979,333
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 11,628	$ 18,938
Income tax payable	1,914	6,677
Deferred revenue	156,316	134,007
Other current liabilities	99,825	123,089
Total current liabilities	269,683	282,711
Deferred revenue	2,359	568
Deferred tax liabilities, net	20,998	5,902
Other non-current liabilities	93,239	48,912
Total liabilities	386,279	338,093
Stockholders' equity:		
Common stock, $0.00000625 par value, and additional paid in capital - authorized shares: 2,020,517; shares outstanding: 860,181 shares (Class A) as of June 30, 2018 and 870,660 (Class A, 783,376, Class B, 66,767, Class C, 20,517) as of December 31, 2017	3,462,142	3,426,505
Accumulated other comprehensive income (loss)	(100,111)	(93,497)

Accumulated deficit	(1,762,437)	(1,691,768)
Total stockholders’ equity	1,599,594	1,641,240
Total liabilities and stockholders’ equity	$ 1,985,873	$ 1,979,333

See accompanying notes to consolidated financial statements.

Zynga Inc.

Consolidated Statements of Operations

(In thousands, except per share data)

(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Revenue:				
Online game	$164,680	$163,745	$326,233	$317,226
Advertising and other	52,365	45,486	99,044	86,289
Total revenue	217,045	209,231	425,277	403,515
Costs and expenses:				
Cost of revenue	74,182	64,172	143,224	129,049
Research and development	67,391	64,615	128,216	133,817
Sales and marketing	52,878	51,201	103,733	97,821
General and administrative	25,580	23,551	48,833	46,116
Total costs and expenses	220,031	203,539	424,006	406,803
Income (loss) from operations	(2,986)	5,692	1,271	(3,288)
Interest income	1,800	1,109	3,610	2,046
Other income (expense), net	2,605	1,614	6,006	3,050
Income (loss) before income taxes	1,419	8,415	10,887	1,808
Provision for (benefit from) income taxes	2,330	3,322	6,189	6,189
Net income (loss)	$(911)	$5,093	$4,698	$(4,381)
Net income (loss) per share attributable to common stockholders:				
Basic	$(0.00)	$0.01	$0.01	$(0.01)
Diluted	$(0.00)	$0.01	$0.01	$(0.01)
Weighted average common shares used to compute net income (loss) per share attributable to common stockholders:				
Basic	858,666	863,125	864,117	869,025
Diluted	858,666	887,991	890,285	869,025

See accompanying notes to consolidated financial statements.

Zynga Inc.

Consolidated Statements of Comprehensive Income (Loss)

(In thousands)

(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Net income (loss)	$(911)	$5,093	$4,698	$(4,381)
Other comprehensive income (loss):				
Change in foreign currency translation adjustment	(29,855)	11,508	(6,721)	16,989
Net change in unrealized gains (losses) on available-for-sale marketable debt securities, net of tax	134	(4)	107	19
Other comprehensive income (loss), net of tax	(29,721)	11,504	(6,614)	17,008
Comprehensive income (loss)	$(30,632)	$16,597	$(1,916)	$12,627

See accompanying notes to consolidated financial statements.

Zynga Inc.

Consolidated Statements of Cash Flows

(In thousands)

(Unaudited)

	Six Months Ended June 30, 2018	2017 (As Adjusted)[1]
Cash flows from operating activities:		
Net income (loss)	$4,698	$ (4,381)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Depreciation and amortization	16,909	16,279
Stock-based compensation expense	31,482	33,758
(Gain) loss from foreign currency, sales of investments, assets and other, net	1,491	(184)
(Accretion) and amortization on marketable debt securities, net	(1,300)	—
Change in deferred income taxes and other	1,273	2,268
Changes in operating assets and liabilities:		
Accounts receivable, net	14,009	(7,968)
Other assets	(7,223)	(2,594)
Accounts payable	(16,261)	(8,341)
Deferred revenue	28,126	13,021
Income tax payable	(5,042)	2,749
Other liabilities	(30,974)	(11,698)
Net cash provided by (used in) operating activities	37,188	32,909
Cash flows from investing activities:		
Purchases of short-term investments	(184,089)	—
Maturities of short-term investments	302,000	—
Sales of short-term investments	9,999	—
Acquisition of property and equipment	(3,679)	(4,141)
Proceeds from sale of property and equipment	28	148
Business acquisitions, net of cash acquired and restricted cash held in escrow	(222,075)	(27,581)
Release of restricted cash escrow from business combinations	(22,800)	—
Other investing activities, net	97	(7,225)
Net cash provided by (used in) investing activities	(120,519)	(38,799)
Cash flows from financing activities:		
Taxes paid related to net share settlement of stockholders' equity awards	(13,972)	(9,423)
Repurchases of common stock	(65,418)	(96,924)
Proceeds from issuance of common stock	4,158	4,017
Acquisition-related contingent consideration payment	—	(5,115)
Net cash provided by (used in) financing activities	(75,232)	(107,445)

Effect of exchange rate changes on cash, cash equivalents and restricted cash	(1,931)	2,026
Net change in cash, cash equivalents and restricted cash	(160,494)	(111,309)
Cash, cash equivalents and restricted cash, beginning of period	405,677	861,716
Cash, cash equivalents and restricted cash, end of period	$ 245,183	$ 750,407
Supplemental cash flow information:		
Income taxes paid	$ 10,261	$ 434

(1) Prior period amounts retrospectively adjusted to reflect the adoption of ASU 2016-18, “Statement of Cash Flows (Topic 230): Restricted Cash”. Refer to Note 1 – “Overview and Summary of Significant Accounting Policies” in the notes to the interim consolidated financial statements for further discussion on the adoption.

See accompanying notes to consolidated financial statements.

Zynga Inc.

Notes to Consolidated Financial Statements

(Unaudited)

1. Overview and Summary of Significant Accounting Policies

Organization and Description of Business

Zynga Inc. ("Zynga," "we" or the "Company") is a leading provider of social game services. We develop, market and operate social games as live services played on mobile platforms such as iOS and Android and social networking sites, such as Facebook. Generally, all of our games are free to play, and we generate substantially all of our revenue through the sale of in-game virtual items and advertising services. Our operations are headquartered in San Francisco, California, and we have several operating locations in the U.S. as well as various international office locations in North America, Asia and Europe.

We completed our initial public offering in December 2011 and our Class A common stock is listed on the NASDAQ Global Select Market under the symbol "ZNGA."

Basis of Presentation and Consolidation

The accompanying interim consolidated financial statements are presented in accordance with United States generally accepted accounting principles ("U.S. GAAP"). The consolidated financial statements include the operations of the Company and its wholly owned subsidiaries. All significant intercompany balances and transactions have been eliminated in the consolidation.

The accompanying interim consolidated financial statements and these related notes should be read in conjunction with the consolidated financial statements and related notes included in our Annual Report on Form 10-K for the year ended December 31, 2017.

Unaudited Interim Financial Information

The accompanying interim consolidated balance sheets as of June 30, 2018 and December 31, 2017, the interim consolidated statements of operations and statements of comprehensive income (loss) for the three and six months ended June 30, 2018 and 2017, the statements of cash flows for the six months ended June 30, 2018 and the notes to interim consolidated financial statements are unaudited. These unaudited interim consolidated financial statements have been prepared in accordance with U.S. GAAP. In management's opinion, the unaudited interim consolidated financial statements include all adjustments of a normal recurring nature necessary for the fair presentation of the Company's statement of financial position and operating results for the periods presented. The results for the three and six months ended June 30, 2018 are not necessarily indicative of the results expected for the full fiscal year or any other future period.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts in the interim consolidated financial statements and notes thereto. Significant estimates and assumptions reflected in the financial statements include, but are not limited to, the estimated average playing period of payers that we use for revenue recognition, useful lives of property and equipment and intangible assets, accrued liabilities, income taxes, the fair value of assets and liabilities acquired through business combinations, contingent consideration obligations, stock-based compensation expense and evaluation of recoverability of goodwill, intangible assets, and long-lived assets. Actual results could differ materially from those estimates.

For the three and six months ended June 30, 2018, we recognized $0.5 million and $0.9 million of online game revenue and income from operations from games that have been discontinued as there is no further performance obligation. This change in estimate did not impact our reported earnings per share in three months ended June 30, 2018 but had a $0.01 per share impact on our reported earnings per share in the six months ended June 30, 2018. For the three and six months ended June 30, 2017, there were no discontinued games that required adjusting the recognition period of deferred revenue generated in prior periods. Further, for the three and six months ended June 30, 2018 and 2017, there were no changes in our estimated average playing period of payers of durable virtual items that required adjusting the recognition period of deferred revenue generated in prior periods.

Recent Accounting Pronouncements

Issued But Not Yet Adopted

In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-02, "Leases (Topic 842)," which requires a lessee to recognize assets and liabilities on the balance sheet for leases with lease terms greater than 12 months, using a modified retrospective transition method. For lessors, accounting for leases will remain substantially the same as in prior periods. The standard is effective in the first quarter of 2019 and early adoption is permitted. In July 2018, the FASB issued ASU 2018-11, "Leases (Topic 842) – Targeted Improvements," which provides an alternative transition approach allowing companies to initially apply the new leases standard by recognizing a cumulative-effect adjustment on adoption date. The Company is currently evaluating which transition approach it will elect.

The Company will adopt on January 1, 2019 and expects adoption of this new standard to increase reported assets and liabilities, specifically with respect to leased office facilities, at a minimum. We are, however, continuing to assess the full impact on our consolidated financial statements, which includes changes to our processes and controls and review of existing lease arrangements.

Issued And Adopted

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers (Topic 606)," which requires revenue to be recognized when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. ASU 2014-09 ("ASC Topic 606") supersedes the existing revenue recognition guidance and is effective for interim and annual reporting periods beginning after December 15, 2017. We adopted ASC Topic 606 on January 1, 2018 using the modified retrospective transition approach. Refer to Note 2 – "Revenue from Contracts with Customers" for further details on the impact from adoption.

In August 2016, the FASB issued ASU 2016-15, "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments," which provides guidance on specific topics related to how certain cash receipts and cash payments are classified in the statement of cash flows. Later, in November 2016, the FASB issued ASU 2016-18, "Statement of Cash Flows (Topic 230): Restricted Cash," which requires companies to include amounts generally described as restricted cash and restricted cash equivalents in cash and cash equivalents when reconciling beginning-of-period and end-of-period total amounts shown on the statement of cash flows. Our restricted cash primarily consists of funds held in escrow in accordance with the terms of our business acquisition agreements. The restrictions release based upon the satisfaction of required milestones or lapse of defined time periods. Both standards are effective for interim and annual reporting periods beginning after December 15, 2017. On January 1, 2018, we adopted both standards using the retrospective transition approach and there was no impact upon adoption of ASU 2016-15.

As a result of adopting ASU 2016-18, the primary impact to the consolidated statement of cash flows relates to cash flows provided by (used in) investing and financing activities. Specifically, our business acquisitions typically involve restricted cash held in escrow at the date of acquisition which is later released. These transactions are now reflected in investing activities. Further, certain acquisition related contingent consideration payments involve restricted cash, the payment of which is reflected in financing activities.

In January 2017, the FASB issued ASU 2017-01, "Business Combinations (Topic 805) Clarifying the Definition of a Business," which clarifies the definition of a business to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The definition of a business affects many areas of accounting including acquisitions, disposals, goodwill and consolidation. The standard is effective for interim and annual periods beginning after December 15, 2017. On January 1, 2018, we adopted the standard using the prospective transition approach, with no financial statement impact upon adoption. Moving forward, the impact of this

ASU will be fact dependent, but we expect that some transactions that were previously accounted for as business combinations or disposal transactions will be accounted for as asset purchases or asset sales under the ASU.

Revenue Recognition

Note: Refer to Note 1 of our consolidated financial statements contained in our previously-filed Annual Report on Form 10-K for the year ended December 31, 2017 for our revenue recognition accounting policy as it relates to revenue transactions prior to January 1, 2018. The revenue recognition accounting policy described below relates to revenue transactions from January 1, 2018 and onward, which are accounted for in accordance with ASC Topic 606.

We primarily derive revenue from the sale of virtual items associated with our online games and the sale of advertising.

Online Game. We operate our games as live services that allow players to play for free. Within these games however, players can purchase virtual currency to obtain virtual goods or virtual goods directly (together, defined as “virtual items”) to enhance their game-playing experience. Our identified performance obligation is to display the virtual items within the game over the estimated life of the paying player or until it is consumed in game play based upon the nature of the virtual item. Payment is required at time of purchase and the purchase price is a fixed amount.

Players can purchase our virtual items through various widely accepted payment methods offered in the games, including Apple iTunes accounts, Google Play accounts, Facebook local currency payments, PayPal and credit cards. Payments from players for virtual items are non-refundable and relate to non-cancellable contracts that specify our obligations. Such payments are initially recorded to deferred revenue.

For revenue earned through mobile platforms, the transaction price is equal to the gross amount we request to be charged to our player because we are the principal in the transaction. We expense the related platform and payment processing fees as cost of revenue in the period incurred.

For revenue earned on our web based games through Facebook, our players utilize Facebook's local currency-based payments program to purchase virtual items in our games. For all payment transactions on the Facebook platform, Facebook remits to us 70% of the price we request to be charged to the player for each transaction, which represents the transaction price. Despite being the principal in the transaction, we recognize revenue net of the amounts retained by Facebook for platform and payment processing fees because Facebook may choose to alter our requested price, for example by offering a discount or other incentives to players playing on their platform, and we do not receive information from Facebook indicating the amount of such discounts or incentives or the actual amount paid by our players. Accordingly, we are unable to determine the gross amount paid by our players on the Facebook platform.

The satisfaction of our performance obligation is dependent on the nature of the virtual item purchased and as a result, we categorize our virtual items as either consumable or durable.

- Consumable virtual items represent goods that can be consumed by a specific player action. Common characteristics of consumable virtual items may include items that are no longer displayed on the player's game board after a short period of time, do not provide the player any continuing benefit following consumption, or often times enable a player to perform an in-game action immediately (e.g. chips in Zynga Poker). For the sale of consumable virtual items, we recognize revenue as the items are consumed (i.e., over time), which approximates one month.

- Durable virtual items represent items that are accessible to the player over an extended period of time (e.g. animals in Farmville 2). We recognize revenue from the sale of durable virtual items ratably over the estimated average playing period of payers for the applicable game (i.e., over time), which represents our best estimate of the average life of the durable virtual item.

- If we do not have the ability to differentiate between revenue attributable to consumable virtual items versus durable virtual items for a specific game, we recognize revenue ratably over the estimated average playing period of payers for the applicable game.

Historically, we have had sufficient data to separately account for consumable and durable virtual items for substantially all of our web games. However, for our standalone mobile games, we do not have the requisite data to separately account for consumable and durable virtual items and therefore recognize mobile revenue ratably over the estimated average playing period of payers.

We expect that in future periods, there will be changes in the mix of consumable and durable virtual items offered and sold, reduced virtual item sales in some existing games, changes in estimates of the average playing period of payers and/or changes in our ability to make such estimates. When such changes occur, and in particular if more of our revenue in any period is derived from durable virtual items or the estimated average playing period of payers increases on average, the amount of revenue that we recognize in a current or future period may be reduced, perhaps significantly. Conversely, if the estimated average playing period of payers decreases on average, the amount of revenue that we recognize in a current or future period may be accelerated, perhaps significantly.

On a quarterly basis, we determine the estimated average playing period of payers by game beginning at the time of a payer's first purchase in the respective game and ending on a date when that paying player is deemed to be no longer playing. To determine when paying players are no longer playing a given game, we analyze monthly cohorts of payers who made their first in-game payment between six and 18 months prior to the beginning of each quarter and determine whether each payer within the cohort is an active or inactive player as of the date of our analysis. To determine which payers are inactive, we analyze the dates that each payer last logged into that game. We determine a payer to be inactive once they have reached a period of inactivity for which it is probable that they will not return to a specific game. For the payers deemed inactive as of our analysis date, we analyze the dates they last logged into that game to determine the rate at which inactive payers stopped playing. Based on these dates, we then project a date at which all payers for each monthly cohort are expected to cease playing our games. We then average the time periods from first purchase date and the date the last payer is expected to cease playing the game for each of the monthly cohorts to determine the total playing period of payers for that game. To determine the estimated average playing period of payers, we then divide this total period by two. The use of this "average" approach is supported by our observations that payers typically become inactive at a relatively consistent rate for our games. If future data indicates payers do not become inactive at a relatively consistent rate, we will modify our calculations accordingly. When a new game is launched and only a limited period of payer data is available for our analysis, then we also consider other factors to determine the estimated average playing period of payers, such as the estimated average playing period of payers for other recently launched games with similar characteristics.

Advertising. We have contractual relationships with advertising networks, agencies, advertising brokers and directly with advertisers for advertisements in our games. For all advertising arrangements, we are the principal and our performance obligation is to provide the inventory for advertisements to be displayed in our games. For contracts made directly with advertisers, we are also obligated to serve the advertisements in our games. However, for those direct advertising arrangements, providing the advertising inventory and serving the advertisement is considered a single performance obligation, as the advertiser cannot benefit from the advertising space without its advertisements being displayed.

For advertising transactions not placed directly with the advertiser, the transaction price is equal to the amount collected, which is generally based on our revenue share stated in the contract for the advertising inventory.

The pricing and terms for all our advertising arrangements are governed by either a master contract or insertion order and generally stipulate payment terms as a specific number of days subsequent to the end of the month, generally ranging from 30 to 60 days. The transaction price in advertising arrangements is generally the product of the number of advertising units delivered (e.g., impressions, offers completed, videos viewed, etc.) and the contractually agreed upon price per advertising unit. The number of advertising units delivered is determined at the end of each month, which resolves any uncertainty in the transaction price during the reporting period.

For a limited number of advertising network arrangements, the transaction price is determined based on a volume-tiered pricing structure, whereby the price per advertising unit in a given month is determined by the number of impressions delivered in that month. However, the number of impressions delivered is resolved at the end of each month, therefore, eliminating any uncertainty with respect to the price per advertising unit for each reporting period.

For in-game display ads, in-game offers, engagement advertisements and other advertisements, our performance obligation is satisfied over the life of contract (i.e., over time), with revenue being recognized as advertising units are delivered.

For in-game sponsorships with branded virtual items, revenue is initially recorded to deferred revenue and then recognized ratably over the estimated life of the branded virtual item, similar to online game revenue, or over the term of the advertising arrangement, depending on the nature of the agreement.

Arrangements with Multiple Performance Obligations. For arrangements with multiple performance obligations, we allocate the transaction price to each performance obligation in an amount that depicts the amount of consideration to which we expect to be entitled in exchange for satisfying each performance obligation, which is based on the standalone selling price. The standalone selling price represents the observable price which we would sell the advertising placement separately in a similar circumstance, to a similar customer.

Taxes Collected from Customers. We present taxes collected from customers and remitted to governmental authorities on a net basis within our consolidated statement of operations.

2. Revenue from Contracts with Customers

On January 1, 2018, we adopted ASC Topic 606 using the modified retrospective transition method applied to contracts that were not complete as of the adoption date. Consolidated financial results for reporting periods beginning after January 1, 2018 are presented under ASC Topic 606, while prior period amounts continue to be reported in accordance with ASC Topic 605, “Revenue Recognition”.

As of January 1, 2018, we recorded a net reduction of $4.0 million to our opening deferred revenue and accumulated deficit balances, net of tax, due to the cumulative impact of adopting ASC Topic 606. The impact was driven by the recognition of revenue for certain advertising arrangements for which revenue was not previously recognized until payment was certain, partially offset by the deferral of previously recognized revenue for a symbolic license arrangement, for which revenue is recognized over the term of the license under ASC Topic 606.

The impact of adopting ASC Topic 606 on our consolidated balance sheet as of June 30, 2018 was as follows (in thousands):

	As of June 30, 2018		
	Amounts as Reported	Amounts without Adoption of ASC Topic 606	Increase (Decrease) from ASC Topic 606 Adoption
Current liabilities:			
Deferred revenue	$156,316	$164,930	$ (8,614)
Total current liabilities	269,683	278,297	(8,614)
Deferred revenue	2,359	1,708	651
Total liabilities	386,279	394,242	(7,963)
Accumulated deficit	(1,762,437)	(1,770,400)	7,963
Total stockholders' equity	1,599,594	1,591,631	7,963
Total liabilities and stockholders' equity	$1,985,873	$1,985,873	$ —

As a result of adopting ASC Topic 606, deferred revenue as of June 30, 2018 decreased from certain advertising arrangements for which revenue would otherwise not be recognized until payment was certain under ASC Topic 605, partially offset by an increase to deferred revenue associated with the deferral of previously recognized revenue from the aforementioned symbolic license arrangement. The increase to our accumulated deficit as of June 30, 2018 from adopting ASC Topic 606 is the result of the net income impact discussed below and the $4.0 million transition adjustment recognized upon adoption of ASC Topic 606 on January 1, 2018.

The impact of adopting ASC Topic 606 on our consolidated statement of operations three and six months ended June 30, 2018 was as follows (in thousands):

	Three Months Ended June 30, 2018		
	Amounts as Reported	Amounts without Adoption of ASC Topic 606	Increase (Decrease) from ASC Topic 606 Adoption
Revenue:			
Advertising and other	$52,365	$49,363	$ 3,002
Total revenue	217,045	214,043	3,002
Income (loss) from operations	(2,986)	(5,988)	3,002
Income (loss) before taxes	1,419	(1,583)	3,002

Net income (loss)	$(911)	$(3,913)	$ 3,002
Net income (loss) per share attributable to common stockholders:			
Basic	$(0.00)	$(0.00)	$ 0.00
Diluted	$(0.00)	$(0.00)	$ 0.00

	Six Months Ended June 30, 2018		
	Amounts as Reported	Amounts without Adoption of ASC Topic 606	Increase (Decrease) from ASC Topic 606 Adoption
Revenue:			
Advertising and other	$99,044	$95,104	$ 3,940
Total revenue	425,277	421,337	3,940
Income (loss) from operations	1,271	(2,669)	3,940
Income (loss) before taxes	10,887	6,947	3,940
Net income (loss)	$4,698	$758	$ 3,940
Net income (loss) per share attributable to common stockholders:			
Basic	$0.01	$0.00	$ 0.01
Diluted	$0.01	$0.00	$ 0.01

As a result of adopting ASC Topic 606 during the three and six months ended June 30, 2018, advertising and other revenue increased primarily as a result of the aforementioned recognition of revenue for certain advertising arrangements for which revenue would otherwise not be recognized until payment was certain under ASC Topic 605 and the recognition of revenue over time from the symbolic license. There was no impact to net cash flows provided by (used in) operating, investing or financing activities for the six months ended June 30, 2018 as a result of adopting ASC Topic 606. However, within cash flows from operating activities, net income (loss) is $3.9 million higher and the change in deferred revenue is $3.9 million lower as a result of adopting ASC Topic 606 during the six months ended June 30, 2018.

Disaggregation of Revenue

The following table presents our revenue disaggregated by platform (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017(1)	2018	2017(1)
Online game:				
Mobile	$ 143,026	$ 139,250	$ 282,856	$ 266,489
Web	21,654	24,495	43,377	50,737
Online game total	$ 164,680	$ 163,745	$ 326,233	$ 317,226
Advertising and other:				
Mobile	49,718	40,618	92,489	74,992
Web	2,528	3,825	4,582	9,505
Other	119	1,043	1,973	1,792
Advertising and other total	$ 52,365	$ 45,486	$ 99,044	$ 86,289
Total revenue	$ 217,045	$ 209,231	$ 425,277	$ 403,515

(1) Amounts have not been retrospectively adjusted to reflect the adoption of ASC Topic 606.

The following table presents our revenue disaggregated based on the geographic location of our payers (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017(1)	2018	2017(1)
United States	$142,541	$139,768	$278,537	$267,973
All other countries(2)	74,504	69,463	146,740	135,542
Total revenue	$217,045	$209,231	$425,277	$403,515

(1) Amounts have not been retrospectively adjusted to reflect the adoption of ASC Topic 606.
(2) No foreign country exceeded 10% of our total revenue for any periods presented.

Consumable virtual items accounted for 47% of online game revenue in the three months ended June 30, 2018 and 43% of online game revenue in the same period of the prior year. Durable virtual items accounted for 53% of online game revenue in the three months ended June 30, 2018 and 57% of online game revenue in the same period of the prior year. The estimated weighted average life of durable virtual items was 9 months in the three months ended June 30, 2018, compared to 8 months in the same period of the prior year.

Consumable virtual items accounted for 46% of online game revenue in the six months ended June 30, 2018 and 45% of online game revenue in the same period of the prior year. Durable virtual items accounted for 54% of online game revenue in the six months ended June 30, 2018 and 55% of online game revenue in the same period of the prior year. The estimated weighted average life of durable virtual items was 9 months for both the six months ended June 30, 2018 and 2017.

Contract Balances

We receive payments from our customers based on the payment terms established in our contracts. Payments for online game revenue are required at time of purchase, are non-refundable and relate to non-cancellable contracts that specify our performance obligations. Such payments are initially recorded to deferred revenue, as the player has no right of return after the purchase, consistent with our standard terms of service. Deferred revenue is recognized into revenue as we satisfy our performance obligations.

Payments for advertising arrangements are due based on the contractually stated payment terms. For advertising arrangements, the contract terms generally require payment within 30 to 60 days subsequent to the end of the month. Our right to payment from the customer is unconditional and therefore recorded as accounts receivable.

During the three and six months ended June 30, 2018, we recognized $34.6 million and $118.2 million, respectively, of revenue that was included in the current deferred revenue balance on January 1, 2018.

The decrease in accounts receivable, net during the six months ended June 30, 2018 was primarily driven by cash collections of current period and previously due amounts exceeding sales on account during the period, partially offset by an increase in accounts receivable of $10.7 million from our acquisition of Gram Games Teknoloji A.S ("Gram Games") during the second quarter of 2018. The increase in deferred revenue during the six months ended June 30, 2018 was primarily driven by the sale of virtual items during the period, which includes contribution from Gram Games, exceeding revenue recognized from the satisfaction of our performance obligations.

Unsatisfied Performance Obligations

Substantially all of our unsatisfied performance obligations relate to contracts with an original expected length of one year or less.

3. Marketable Securities

The following tables summarize our amortized cost, gross unrealized gains and losses and fair value of our short-term investments as of June 30, 2018 and December 31, 2017 (in thousands):

	June 30, 2018			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Aggregate Fair Value
Corporate debt securities	$182,073	$ —	$ (71)	$182,002
Total	$182,073	$ —	$ (71)	$182,002

	December 31, 2017			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Aggregate Fair Value
Corporate debt securities	$308,684	$ —	$ (178)	$308,506
Total	$308,684	$ —	$ (178)	$308,506

All of our short-term investments have contractual maturities of one year or less as of June 30, 2018.

Changes in market interest rates and bond yields cause our short-term investments to fall below their cost basis, resulting in unrealized losses. As of June 30, 2018, we had unrealized losses of $0.1 million related to short-term investments that had a fair value of $56.9 million. None of these securities were in a material continuous unrealized loss position for more than 12 months.

As of June 30, 2018, we did not consider any of our short-term investments to be other-than-temporarily impaired. We do not intend to sell, nor do we believe it is more likely than not that we will be required to sell, any of the securities in an unrealized loss position. When evaluating our investments for other-than-temporary impairment, we review factors such as the length of time and extent to which fair value has been below its cost basis, the financial condition of the issuer, our ability and intent to hold the security to maturity and whether it is more likely than not that we will be required to sell the investment before recovery of the amortized cost basis.

4. Fair Value Measurements

Our financial assets consist of cash equivalents, short-term investments and accounts receivable. Cash equivalents and short-term investments, which consist of money market funds and corporate debt securities, are reported at fair value. Accounts receivable, net is stated at its net realizable amount, which approximates fair value.

Our financial liabilities consist of accounts payable and accrued liabilities, which are stated at the invoiced or estimated payout amount, respectively, which approximates fair value, as well as contingent consideration obligations as a result of business acquisitions, which are reported at fair value.

As of June 30, 2018, our contingent consideration obligation represents the estimated fair value of the additional consideration payable in connection with our acquisition of PuzzleSocial, Inc. (“PuzzleSocial”) in the third quarter of 2016 and Gram Games in the second quarter of 2018. With respect to the PuzzleSocial acquisition, we estimated the acquisition date fair value of the contingent consideration obligation using discounted cash flow models, and applied a discount rate that appropriately captured a market participant’s view of the risk associated with the respective obligation. The significant unobservable inputs used in the fair value measurement of the acquisition-related contingent consideration obligation were forecasted future cash flows, the timing of those cash flows and the risk-adjusted discount rate. During the second quarter of 2017, it was determined the future performance would not meet the required performance targets. As of June 30, 2018, we continue to expect that the future performance will not meet the required performance targets for the acquisition. Accordingly, the estimated contingent consideration obligation remains at zero as of June 30, 2018.

Under the terms of the Gram Games acquisition, contingent consideration may be payable based on the achievement of certain future performance targets during each annual period following the acquisition date for a total of three years, with no maximum limit as to the contingent consideration achievable. We estimated the acquisition date fair value of the contingent consideration obligation using a Monte Carlo simulation. The significant unobservable inputs used in the fair value measurement of the contingent consideration obligation were Gram Games’ projected performance, risk-adjusted discount rate and performance volatility similar to industry peers. Changes to projected performance of the acquired business could result in a higher or lower contingent consideration obligation in the future. At acquisition, the estimated fair value of the contingent consideration obligation was $43.5 million. However, as of June 30, 2018, the estimated fair value of the contingent consideration obligation increased to $45.0 million due to the increased probability of achievement, resulting in $1.5 million of expense recognized within research and development expense in our consolidated statement of operations for the three and six months ended June 30, 2018.

We estimate fair value as the exit price, which represents the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between knowledgeable and willing market participants.

The valuation techniques used to measure the fair value of the Company’s financial instruments, all of which have counterparties with high credit ratings, were valued based on quoted market prices or model-driven valuations using significant inputs derived from or corroborated by observable market data. We use a three-tier value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1 — Observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2 — Includes inputs, other than Level 1 inputs, that are directly or indirectly observable in the marketplace.

Level 3 — Unobservable inputs that are supported by little or no market activity.

The composition of our financial assets and liabilities as of June 30, 2018 and December 31, 2017 among the three levels of the fair value hierarchy are as follows (in thousands):

	June 30, 2018			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents:				

Money market funds	$50,871	$—	$—	$50,871
Corporate debt securities	—	24,900	—	24,900
Short-term investments:				
Corporate debt securities	—	182,002	—	182,002
Total financial assets	$50,871	$206,902	$—	$257,773
Liabilities:				
Contingent consideration	$—	$—	$45,000	$45,000

	December 31, 2017			
	Level 1	Level 2	Level 3	Total
Cash equivalents:				
Money market funds	$177,577	$—	$ —	$177,577
Corporate debt securities	—	44,923	—	44,923
Short-term investments:				
Corporate debt securities	—	308,506	—	308,506
Total financial assets	$177,577	$353,429	$ —	$531,006

The following table presents the activity for the six months ended June 30, 2018 related to our Level 3 liabilities (in thousands):

Level 3 Liabilities:	Total
Contingent consideration obligation – December 31, 2017	$—
Additions	43,500
Fair value adjustments	1,500
Contingent consideration obligation – June 30, 2018	$45,000

We had no transfers between valuation levels from December 31, 2017 to June 30, 2018.

5. Property and Equipment, net

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

	June 30, 2018	December 31, 2017
Computer equipment	$20,354	$ 21,583
Software	32,065	32,509
Land	89,130	89,130
Building and building improvements	200,139	199,070
Furniture and fixtures	10,467	10,376
Leasehold improvements	6,974	7,965
Total property and equipment, gross	$359,129	$ 360,633
Less: Accumulated depreciation	(94,884)	(94,044)
Total property and equipment, net	$264,245	$ 266,589

The following represents our property and equipment, net by location (in thousands):

	June 30, 2018	December 31, 2017
United States	$260,433	$ 263,037
All other countries	3,812	3,552
Total property and equipment, net	$264,245	$ 266,589

6. Acquisitions

Gram Games Acquisition

On May 25, 2018 we acquired a 100% equity interest in Gram Games, a mobile game developer to expand our hyper-casual and puzzle games portfolio, for total purchase consideration of $299.0 million. Of the total purchase consideration, $230.5 million was paid in cash on the acquisition date and $25.0 million is retained in escrow for a period of 18 months for general representations and warranties for total cash consideration of $255.5 million. The remaining purchase consideration relates to contingent consideration valued at $43.5 million as of the acquisition date (see Note 4 – "Fair Value Measurements" for further discussion on this estimate). The contingent consideration may be payable based on the achievement of certain future performance targets during each annual period following the acquisition date for a total of three years. We will record changes in the fair value of the contingent consideration obligation within our consolidated statement of operations in each future reporting period as they occur. Additionally, in connection with the transaction, the Company executed noncompetition agreements with the prior management owners of Gram Games for a term of three years following the acquisition date. However, the acquisition date estimated fair value of the noncompetition agreements was not material.

The following table summarizes the acquisition date fair value of the tangible assets, liabilities assumed, intangible assets, contingent consideration and related goodwill acquired from Gram Games (in thousands, unaudited):

	Total
Cash acquired	$8,474
Accounts receivable, net acquired	10,747
Prepaid expenses acquired	279
Other current assets acquired	937
Intangible assets, net acquired:	
Developed technology, useful life of 5 years	43,000
Developed technology, useful life of 3 years	26,000
Trade names, useful life of 7 years	14,000
Trade names, useful life of 3 years	500
Goodwill	223,833
Property and equipment, net acquired	898
Other non-current assets acquired	329
Total assets acquired	328,997
Accounts payable assumed	(8,874)
Income tax payable assumed	(502)
Other current liabilities assumed	(5,164)
Deferred tax liabilities, net assumed	(15,408)
Total liabilities assumed	(29,948)
Total purchase price consideration	$299,049
Non-current contingent consideration obligation	(43,500)
Total cash consideration	$255,549

Certain amounts noted above are preliminary and subject to change during the respective measurement period (up to one year from the respective acquisition date) as we obtain additional information for the preliminary fair value estimates of the assets acquired and liabilities assumed. The primary preliminary estimates that are not yet finalized relate to certain tangible assets and liabilities assumed, identifiable intangible assets, income and non-income based taxes and residual goodwill.

Goodwill, which is non-deductible for tax purposes, represents the excess of the purchase price over the fair value of the net tangible and intangible assets acquired and is primarily attributable to the assembled workforce of the acquired business and expected synergies at the time of the acquisition. The weighted average amortization period of the acquired intangible assets is 4.7 years at acquisition.

Transactions costs incurred by the Company in connection with the Gram Games acquisition, including professional fees, were $1.3 million and were recorded within general and administrative expenses in our consolidated statements of operations for the three and six months ended June 30, 2018.

The results of operations from Gram Games have been included in our consolidated statement of operations since the date of acquisition. Pro forma results of operations have not been presented as they are not material to our consolidated statements of operations for the three and six months ended June 30, 2018.

7. Goodwill and Intangible Assets, net

The following table presents the changes to goodwill for the six months ended June 30, 2018 (in thousands):

Goodwill – December 31, 2017 [1]	$730,464
Additions	223,833
Foreign currency translation adjustments [2]	(5,039)
Goodwill – June 30, 2018 [1]	$949,258

(1) There are no accumulated impairments losses at the beginning or end of any period presented.
(2) The decrease is primarily related to translation gains on goodwill associated with the acquisition of NaturalMotion which the functional currency is denominated in British Pounds.

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The details of our acquisition-related intangible assets as of June 30, 2018 and December 31, 2017 are as follows (in thousands):

	June 30, 2018		
	Gross Carrying Value	Accumulated Amortization	Net Book Value
Developed technology	$266,239	$ (154,935)	$ 111,304
Trademarks, branding and domain names	32,772	(10,470)	22,302
Noncompetition agreements	8,390	(5,093)	3,297
Acquired lease intangibles	5,708	(5,439)	269
Total	$313,109	$ (175,937)	$ 137,172

	December 31, 2017		
	Gross Carrying Value	Accumulated Amortization	Net Book Value
Developed technology	$197,908	$ (147,427)	$ 50,481
Trademarks, branding and domain names	18,272	(10,152)	8,120
Noncompetition agreements	8,390	(3,079)	5,311
Acquired lease intangibles	5,708	(5,362)	346
Total	$230,278	$ (166,020)	$ 64,258

Our trademarks, branding and domain names intangible assets include $6.1 million of indefinite-lived intangible assets as of June 30, 2018 and December 31, 2017. The remaining assets were, and continue to be, amortized on a straight-line basis. Amortization expense related to intangible assets was $6.0 million and $10.6 million for the three and six months ended June 30, 2018, respectively. Comparatively, amortization expense related to intangible assets was $4.1 million and $9.5 million for the three and six months ended June 30, 2017, respectively.

As of June 30, 2018, the weighted-average remaining useful lives of our acquired intangible assets are 4.0 years for developed technology, 6.8 years for trademarks, branding and domain names, 1.1 years for noncompetition agreements, 1.8 years for acquired lease intangibles and 4.3 years in total, for all acquired intangible assets.

As of June 30, 2018, future amortization expense related to the intangible assets is expected to be recognized as shown below (in thousands):

Year ending December 31:	
Remaining 2018	$18,542
2019	32,409
2020	31,149
2021	23,596
2022	16,368
Thereafter	8,988

Total	$131,052

8. Income Taxes

On December 22, 2017, the 2017 Tax Cuts and Jobs Act (“2017 Tax Act”) was enacted into law. Beginning January 1, 2018, the 2017 Tax Act reduced the U.S. federal corporate tax rate from 35% to 21%, requires companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred, created new taxes on certain foreign sourced earnings, repealed the Alternative Minimum Tax (“AMT”), and expanded the number of individuals whose compensation is subject to a $1.0 million cap on deductibility, amongst other changes.

During the fourth quarter of 2017, we recognized a provisional tax benefit of $5.0 million as a result of the 2017 Tax Act’s enactment, which was included as a component of the provision for income taxes, and primarily consisted of a $2.4 million income tax benefit in connection with re-measurement of certain deferred tax assets and liabilities and a $2.6 million income tax benefit in connection with the refundable AMT credit. Other provisional amounts recorded during the fourth quarter of 2017 related to the revised officer compensation rules and one-time transitional tax on foreign earnings and profits after 1986, which had no impact to the provision for income taxes because of an equal offset to the valuation allowance and overall accumulated earnings and profits deficit, respectively.

During the three and six months ended June 30, 2018, there were no adjustments to the provisional amounts previously recorded during the fourth quarter of 2017. We continue to gather additional information necessary and await interpretative guidance from the Internal Revenue Service and United States Treasury, specifically as it relates to the global intangible low-taxed income ("GILTI") and Base Erosion and Anti-Abuse Tax provisions of the 2017 Tax Act, to complete our accounting for these items within the prescribed measurement period.

With respect to the GILTI provisions, companies may make an accounting policy election to either (i) account for GILTI as a component of tax expense in the period in which the entity is subject to the rules or (ii) account for GILTI in the entity's measurement of deferred taxes. Our selection of an accounting policy will depend, in part, on analyzing our global income to determine whether we expect to have future U.S. inclusions in taxable income related to GILTI and, if so, the impact that is expected. Whether we expect to have future U.S. inclusions in taxable income related to GILTI depends on a number of aspects of our estimated future results of global operations, and as a result, we are not yet able to make our accounting policy election. Therefore, we have not recorded any deferred tax effects related to GILTI for the three and six months ended June 30, 2018.

On a consolidated basis, the provision for income taxes decreased by $1.0 million in the three months ended June 30, 2018 as compared to the same period of the prior year. The decrease was primarily attributable to a benefit generated from the post-acquisition statutory operating loss from Gram Games, partially offset by changes in our jurisdictional mix of earnings. The fluctuation of the provision for income taxes for the six months ended June 30, 2018 as compared to the same period of the prior year was flat due to a benefit generated from the post-acquisition statutory operating loss from Gram Games, offset by changes in our jurisdictional mix of earnings.

9. Other Current and Non-Current Liabilities

Other current liabilities consist of the following (in thousands):

	June 30, 2018	December 31, 2017
Accrued accounts payable	$22,879	$ 38,046
Accrued compensation liability	26,050	33,815
Accrued restructuring liability	3,617	3,674
Accrued payable from acquisitions	10,000	12,800
Accrued lease incentive obligation	24,895	20,059
Value-added taxes payable	3,538	3,453
Other current liabilities	8,846	11,242
Total other current liabilities	$99,825	$ 123,089

Accrued compensation liability represents employee bonus and other payroll withholding expenses. Other current liabilities include various expenses that we accrue for transaction taxes, customer deposits and accrued vendor expenses.

Other non-current liabilities consist of the following (in thousands):

	June 30,	December 31,

	2018	2017
Contingent consideration obligation	$45,000	$ —
Accrued payable from acquisitions	25,000	20,000
Accrued restructuring liability	9,269	10,856
Unrecognized tax liability	10,205	8,975
Accrued lease incentive obligation	—	4,836
Other non-current liabilities	3,765	4,245
Total other non-current liabilities	$93,239	$ 48,912

10. Restructuring

We recorded the following net restructuring charges within our consolidated statements of operations (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Cost of revenue	$ —	$ —	$ 27	$ —
Research and development	(109)	1,265	78	333
General and administrative	509	157	766	244
Total restructuring charges	$ 400	$ 1,422	$ 871	$ 577

Restructuring activities, summarized by plan, are presented in the table below (in thousands):

	Q4 2017 Restructuring Plan	Q2 2015 Restructuring Plan	Other Restructuring Plans	Total
Restructuring liability – December 31, 2017	$ 371	$ 14,152	$ 7	$ 14,530
Restructuring expense and adjustments	770	76	25	871
Cash payments	(756)	(1,727)	(32)	(2,515)
Restructuring liability – June 30, 2018	$ 385	$ 12,501	$ —	$ 12,886
Cumulative costs to date, as of June 30, 2018	$ 2,236	$ 34,400	$ 2,195	$ 38,831
Total costs expected to be incurred, as of June 30, 2018	$ 2,252	$ 34,400	$ 2,195	$ 38,847

Q4 2017 Restructuring Plan

During the fourth quarter of 2017, we implemented a restructuring plan which included a reduction in work force to reduce the Company's long-term cost structure. As a result of ongoing initiatives associated with this restructuring plan, we recorded $0.4 million and $0.8 million of expense during the three and six months ended June 30, 2018, respectively, which is included in operating expenses in our consolidated statement of operations. The $0.4 million restructuring charge for the three months ended June 30, 2018 is comprised of $0.1 million of employee severance costs and $0.3 million of other costs and the $0.8 million restructuring charge for the six months ended June 30, 2018 is comprised of $0.3 million of employee severance costs and $0.5 million of other costs. The remaining costs are expected to be paid out within the next quarter.

Q2 2015 Restructuring Plan

During the second quarter of 2015, we implemented a restructuring plan which included a reduction in work force to reduce the Company's long-term cost structure. As a result of ongoing initiatives associated with this restructuring plan, we recorded $0.1 million of other costs during the three and six months ended June 30, 2018, which is included in operating expenses in our consolidated statement of operations. The remaining liability is expected to be paid out over the next 3.9 years.

11. Stockholders' Equity

We recorded stock-based compensation expense related to grants of employee stock options, restricted stock units ("ZSUs") and performance-based awards in our consolidated statements of operations as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Cost of revenue	$564	$371	$995	$990
Research and development	10,363	10,483	18,988	22,196
Sales and marketing	2,214	1,751	4,050	3,538
General and administrative	4,228	3,627	7,449	7,034
Total stock-based compensation expense	$17,369	$16,232	$31,482	$33,758

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The following table shows stock option activity for the six months ended June 30, 2018 (in thousands, except weighted-average exercise price and weighted-average contractual term):

	Outstanding Options			
	Stock Options	Weighted-Average Exercise Price	Aggregate Intrinsic Value of Stock Options Outstanding	Weighted-Average Contractual Term (in years)
Balance as of December 31, 2017	32,964	$ 2.07	$ 64,114	6.32
Granted	6,122	3.48		
Forfeited, expired and cancelled	(217)	3.77		
Exercised	(593)	1.65		
Balance as of June 30, 2018	38,276	$ 2.29	$ 68,360	6.48

The following table presents the weighted-average grant date fair value and the related assumptions used to estimate the fair value of our stock options:

	Three and Six Months Ended June 30, 2018
Expected term, in years	6
Risk-free interest rates	2.70 %
Expected volatility	44 %
Dividend yield	—
Weighted-average estimated fair value of options granted	$ 1.60

The following table shows a summary of ZSU activity for the six months ended June 30, 2018 (in thousands, except weighted-average grant date fair value):

	Outstanding ZSUs		
	Shares	Weighted-Average Grant Date Fair Value (per share)	Aggregate Intrinsic Value of Unvested ZSUs
Unvested as of December 31, 2017	45,478	$ 3.00	$ 181,912
Granted	27,858	3.85	
Vested	(9,292)	2.95	
Forfeited	(4,857)	3.13	
Unvested as of June 30, 2018	59,187	$ 3.40	$ 240,891

Stock Repurchases

In November 2016, we announced that our Board of Directors authorized a share repurchase program allowing us to repurchase up to $200.0 million of our outstanding shares of Class A common stock ("2016 Share Repurchase Program"). In 2017, we repurchased 36.3 million shares for our Class A common stock under the repurchase program at a weighted average price of $2.78 per share for a total of $101.0 million. During the three months ended June 30, 2018, we repurchased 6.9 million shares of our Class A common stock under the repurchase program at a weighted average price of $3.51 per share for a total of $24.2 million and during the six months ended June 30, 2018, we repurchased 18.2 million shares of our Class A common stock under the repurchase program at a weighted average price of $3.59 per share for a total of $65.4 million, completing the 2016 Share Repurchase Program.

All of our stock repurchases were made through open market purchases under Rule 10b5-1 plans and subsequently retired.

In April 2018, a new share repurchase program was authorized for up to $200.0 million of our outstanding Class A common stock. The timing and amount of any stock repurchases will be determined based on market conditions, share price and other factors. The program does not require us to repurchase any specific number of shares of our Class A common stock and may be modified, suspended or terminated at any time without notice. The stock repurchase program will be funded from existing cash on hand or other sources of funding as the Company may determine to be appropriate. Share repurchases under these authorizations may be made through a variety of methods, which may include open market purchases, privately negotiated transactions, block trades, accelerated share repurchase transactions, purchases through 10b5-1 plans or by any combination of such methods.

12. Accumulated Other Comprehensive Income (Loss)

The following table shows a summary of changes in accumulated other comprehensive income (loss) by component for the six months ended June 30, 2018 (in thousands):

	Foreign Currency Translation	Unrealized Gains (Losses) on Available-For-Sale Marketable Debt Securities	Total
Balance as of December 31, 2017	$ (93,319)	$ (178)	$ (93,497)
Other comprehensive income (loss) before reclassifications	(6,721)	107	(6,614)
Amounts reclassified from accumulated other comprehensive income (loss)	—	—	—
Net other comprehensive income (loss)	(6,721)	107	(6,614)
Balance as of June 30, 2018	$ (100,040)	$ (71)	$ (100,111)

13. Net Income (Loss) Per Share of Common Stock

On May 2, 2018, our founder, Mark Pincus, elected to convert certain outstanding shares of Class B common stock and all outstanding shares of Class C common stock controlled by Mr. Pincus and an affiliated investment entity into an equivalent number of shares of Class A common stock. As a result of Mr. Pincus' conversion, the remaining shares of Class B common stock represented less than 10% of the total voting power of all Zynga stockholders and, accordingly, each remaining outstanding share of Class B common stock automatically converted into one share of Class A common stock. Each Zynga stockholder now has one vote per share on all matters subject to stockholder vote. Following the conversion, no shares of Class B or Class C common stock are outstanding and the total number of authorized shares of capital stock will be reduced to account for the elimination of the Class B and Class C common stock. Accordingly, beginning in the second quarter of 2018, the Company calculated basic and dilutive net income (loss) per share under a single-class method.

Prior to the conversion noted above, we computed net income (loss) per share of common stock using the two-class method required for participating securities and multiple classes of common stock. Prior to the date of the initial public offering, we considered all series of our convertible preferred stock to be participating securities due to their non-cumulative dividend rights. Additionally, we considered shares issued upon the early exercise of options subject to repurchase and unvested restricted shares to be participating securities, because the holders of such shares have non-forfeitable dividend rights in the event we declare a dividend for common shares. In accordance with the two-class method, net income allocated to these participating securities, which include participation rights in undistributed net income, is subtracted from net income (loss) to determine total net income (loss) to be allocated to common stockholders.

Basic net income (loss) per share is computed by dividing net income (loss) attributable to common stockholders by the weighted-average number of common shares outstanding during the period. Diluted net income (loss) per share is computed by dividing net income (loss) attributable to common stockholders by the weighted-average number of common shares outstanding, including potential dilutive securities. In computing diluted net income (loss) per share, net income (loss) attributable to common shareholders is re-allocated to reflect the potential impact of dilutive securities, including stock options, unvested ZSUs, unvested performance-based ZSUs and ESPP withholdings. For periods in which we have generated a net loss or there is no income attributable to common stockholders, we do not include dilutive securities in our calculation of diluted net income (loss) per share, as the impact of these awards is anti-dilutive.

The following tables set forth the computation of basic and diluted net income (loss) per share of common stock (in thousands, except per share data):

	Three Months Ended June 30, 2018 Class A[(1)]	Six Months Ended June 30, 2018 Class A[(1)]
BASIC:		
Net income (loss) attributable to common stockholders – basic	$(911)	$ 4,698
Weighted-average common shares outstanding – basic	858,666	864,117
Net income (loss) per share attributable to common stockholders – basic	$(0.00)	$ 0.01
DILUTED:		
Net income (loss) attributable to common stockholders – basic	$(911)	$ 4,698
Weighted-average common shares outstanding – basic	858,666	864,117
Weighted-average effect of dilutive securities:		
Stock options and employee stock purchase plan	—	10,803
ZSUs	—	14,093
Performance-based ZSUs	—	1,272
Weighted-average common shares outstanding – diluted	858,666	890,285
Net income (loss) per share attributable to common stockholders – diluted	$(0.00)	$ 0.01

(1) The net income (loss) per share calculations for the three and six months ended June 30, 2018 are presented as if the one-for-one class conversion occurred as of the beginning of the respective period.

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	Three Months Ended June 30, 2017			Six Months Ended June 30, 2017		
	Class A	Class B	Class C	Class A	Class B	Class C
BASIC:						
Net income (loss) attributable to common stockholders – basic	$4,565	$407	$121	$(3,896)	$(382)	$(103)
Weighted-average common shares outstanding – basic	773,704	68,904	20,517	772,679	75,289	20,517
Net income (loss) per share attributable to common stockholders – basic	$0.01	$0.01	$0.01	$(0.01)	$(0.01)	$(0.01)
DILUTED:						
Net income (loss) attributable to common stockholders – basic	$4,565	$407	$121	$(3,896)	$(382)	$(103)
Reallocation of net income (loss) as a result of conversion of Class C shares to Class A shares	121	—	—	(103)	—	—
Reallocation of net income (loss) as a result of conversion of Class B shares to Class A shares	407	—	—	(382)	—	—
Reallocation of net income (loss) to Class B and Class C shares	—	—	—	—	—	—
Net income (loss) attributable to common stockholders – diluted	$5,093	$407	$121	$(4,381)	$(382)	$(103)
Weighted-average common shares outstanding – basic	773,704	68,904	20,517	772,679	75,289	20,517
Conversion of Class C to Class A common shares outstanding	20,517	—	—	20,517	—	—
Conversion of Class B to Class A common shares outstanding	68,904	—	—	75,829	—	—
Weighted-average effect of dilutive securities:						
Stock options and employee stock purchase plan	9,811	917	—	—	—	—
ZSUs	14,710	—	—	—	—	—
Performance-based ZSUs	345	—	—	—	—	—
Weighted-average common shares outstanding – diluted	887,991	69,821	20,517	869,025	75,289	20,517
Net income (loss) per share attributable to common stockholders – diluted	$0.01	$0.01	$0.01	$(0.01)	$(0.01)	$(0.01)

The following weighted-average equity awards were excluded from the computation of diluted net income (loss) per share because their effect would have been anti-dilutive for the periods presented (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Stock options and employee stock purchase plan	38,278	16,827	9,737	35,138
Restricted shares	—	—	—	1,062
ZSUs	53,536	2,770	2,720	49,263
Total	91,814	19,597	12,457	85,463

14. Leases

Rental Income

The Company owns the building where its San Francisco headquarters is located and leases available office space to other tenants. One tenant will occupy approximately 43% of the building with a lease term concluding in February 2027. The agreement provides for total minimum rental payments of $167.3 million with escalating rent payments and various lease incentives to be straight-lined over the lease term. The monthly rental income, net of the lease incentives and amortization of the lease origination costs, is recorded within other income and expense, net in the consolidated statement of operations. As of June 30, 2018, the Company has a current lease incentive obligation of $24.9 million related to tenant improvements for this lease.

As of June 30, 2018, the remaining cash to be received from future minimum rentals for the noncancelable lease term are as follows (in thousands):

Year ending December 31:	
Remaining 2018	$4,612
2019	11,345
2020	14,369
2021	20,287
2022	20,896
Thereafter	93,982
Total	$165,491

The Company has other lease and sub-lease arrangements for its owned or leased office facilities, however, the amounts are not material to the consolidated financial statements.

Lease Commitments

We have entered into operating leases primarily for office facilities. As of June 30, 2018, future minimum lease payments related to the Company's leases are as follows (in thousands):

Year ending December 31:	
Remaining 2018	$4,196
2019	8,421
2020	6,292
2021	5,282
2022	1,548
Thereafter	—
Total	$25,739

15. Commitments and Contingencies

The amounts represented in the tables below reflect our minimum cash obligations for the respective calendar years based on contractual terms, but not necessarily the periods in which these costs will be expensed in the Company's consolidated statement of operations.

Licensor and Marketing Commitments

We have entered into several contracts with licensors that contain minimum contractual and marketing commitments that may not be dependent on any deliverables. As of June 30, 2018, future minimum contractual royalty payments due to licensors and marketing commitments for the licensed products are as follows (in thousands):

Year ending December 31:	
Remaining 2018	$9,112
2019	19,500
2020	32,750
Thereafter	—
Total	$61,362

Other Purchase Commitments

We have entered into several contracts primarily for hosting of data systems and other services. As of June 30, 2018, future minimum purchase commitments that have initial or remaining non-cancelable terms are as follows (in thousands):

Year ending December 31:	
Remaining 2018	$6,959
2019	3,731
2020	674
Thereafter	—
Total	$11,364

Legal Matters

The Company is involved in legal and regulatory proceedings on an ongoing basis. Some of these proceedings are in early stages and may seek an indeterminate amount of damages. If the Company believes that a loss arising from such matters is probable and can be reasonably estimated, the Company accrues the estimated liability in its financial statements. If only a range of estimated losses can be determined, the Company accrues an amount within the range that, in its judgment, reflects the most likely outcome; if none of the estimates within that range is a better estimate than any other amount, the Company accrues the low end of the range. For proceedings in which an unfavorable outcome is reasonably possible but not probable and an estimate of the loss or range of losses arising from the proceeding can be made, the Company discloses such an estimate, if material. If such a loss or range of losses is not reasonably estimable, the Company discloses that fact. In assessing the materiality of a proceeding, the Company evaluates, among other factors, the amount of monetary damages claimed, as well as the potential impact of non-monetary remedies sought by plaintiffs that may require changes to business practices in a manner that could have a material adverse impact on the Company's business. Legal expenses are recognized as incurred.

Derivative Litigation

Since August 3, 2012, eight stockholder derivative lawsuits have been filed in State or Federal courts in California and Delaware purportedly on behalf of the Company against certain current and former directors and executive officers of the Company. The derivative plaintiffs allege that the defendants breached their fiduciary duties and violated California Corporations Code section 25402 in connection with the Company's initial public offering in December 2011 and the Company's secondary offering in April 2012 by allegedly making false or misleading statements regarding the Company's business and financial projections.

Beginning on August 3, 2012, three of the actions were filed in San Francisco County Superior Court. On October 2, 2012, the court consolidated those three actions as In re Zynga Shareholder Derivative Litigation, Lead Case CGC-12-522934. On March 14, 2013, the plaintiffs filed a First Amended Complaint in that consolidated California state action. On March 21, 2013, the court endorsed a stipulation among the parties staying the action pending the ruling on the motion to dismiss in a related federal securities class action. On March 24, 2014, the court endorsed a stipulation among the parties staying the action pending a ruling on a motion to dismiss the First Amended Complaint in the federal securities class action. On April 24, 2015, the court endorsed a stipulation among the parties staying the action until the Delaware Chancery Court ruled on the defendants' motion to stay or dismiss in the action described below. On May 2, 2016, the court endorsed a stipulation among the parties staying the action until final resolution of plaintiff's appeal in the Delaware derivative action that is discussed in further detail below. At a status conference on March 8, 2017, the court stayed the action, in light of the Company's formation of a special litigation committee discussed below. At a status conference on September 29, 2017, the court extended the stay in the action until April 9, 2018. On April 20, 2018, the Special Litigation Committee (discussed below), acting on the Company's behalf, filed a motion to dismiss the action on grounds that the appropriate forum for resolution of the action is the Delaware Court of Chancery. On May 25, 2018, plaintiffs' counsel requested, and the court granted, a voluntary dismissal of the action in its entirety. This action has now been dismissed.

Beginning on August 16, 2012, four stockholder derivative actions were filed in the U.S. District Court for the Northern District of California. On December 3, 2012, the court consolidated these four actions as In re Zynga Inc. Derivative Litigation, Lead Case No. 12-CV-4327-JSW. On March 11, 2013, the court endorsed a stipulation among the parties staying the action pending the ruling on the motion to dismiss in a related federal securities class action. On March 21, 2014, the court issued an order continuing the stay pending a ruling on a motion to dismiss the First Amended Complaint in the federal securities class action. On April 27, 2015, the court endorsed a stipulation among the parties staying the action until the Delaware Chancery Court ruled on the defendants' motion to stay or dismiss in the action described below. On April 27, 2016, the court endorsed a stipulation among the parties staying the action until final resolution of plaintiff's appeal in the Delaware derivative action discussed below. On January 26, 2017, the court endorsed a stipulation among the parties providing for a further stay of this action until July 14, 2017. On August 17, 2017, the court endorsed a stipulation among the parties providing for a further stay of this action until September 29, 2017. On October 27, 2017, the court endorsed a stipulation among the parties provided for further stay of this action until April 9, 2018. On March 29, 2018, the plaintiffs filed a motion to lift the stay in the action, and on April 17, 2018, the Special Litigation Committee, acting on behalf of the Company, filed a cross-motion to dismiss the action on grounds that the appropriate forum for resolution of the action is the Delaware Court of Chancery. On May 17, 2018, the court granted plaintiffs' motion to lift the stay, and simultaneously granted defendants' motion to dismiss the action. This consolidated action has now been dismissed.

On April 4, 2014, a derivative action was filed in the Court of Chancery of the State of Delaware captioned Sandys v. Pincus, et al. Case No. 9512-CB. The derivative actions include claims for, among other things, unspecified damages in favor of the Company, certain corporate actions to purportedly improve the Company's corporate governance, and an award of costs and expenses to the derivative plaintiffs, including attorneys' fees.

On December 9, 2014, the defendants filed a motion to stay or dismiss the action. The court held a hearing on defendants' motion on November 17, 2015, and on February 29, 2016, the court granted the Company's motion to dismiss. On March 29, 2016, plaintiff filed a notice of appeal of the court's order dismissing the action. On December 5, 2016, the Delaware Supreme Court reversed the Court of Chancery's dismissal and remanded the case for further proceedings. On June 7, 2017, the court endorsed a stipulation among the parties staying the action through July 31, 2017, in light of the Company's formation of a Special Litigation Committee, as noted below. On July 18, 2017, the court endorsed a stipulation among the parties continuing the stay in the action through September 7, 2017. On September 11, 2017, the court endorsed a stipulation among the parties continuing the stay in the action through October 31, 2017. Subsequently, on January 5, 2018, the Special Litigation Committee, acting on behalf of the Company, filed a supplemental motion to stay the action until February 20, 2018, to allow the parties to engage in settlement negotiation.

On February 3, 2017, the Company's Board of Directors established a special litigation committee (the "Special Litigation Committee") consisting of Janice Roberts and Carol Mills, to investigate the claims asserted against certain former and current officers and directors of the Company in the shareholder derivative suits described above (collectively, the "Derivative Litigation"). The Company's Board of Directors determined that each member of the Special Litigation Committee is disinterested and independent with respect to the Derivative Litigation. The Special Litigation Committee was created to determine what actions are appropriate and in the best interests of the Company, and decide whether it is in the best interests of the Company to pursue, dismiss or consensually resolve the claims asserted in the Derivative Litigation. The Special Litigation Committee's findings and determinations shall be final and not subject to review by the Company's Board of Directors and in all respects shall be binding upon the Company.

On March 1, 2018, the Special Litigation Committee (on behalf of the Company) and the Sandys defendants filed a stipulation of settlement notifying the court that these parties had reached an agreement to settle the action, releasing all claims against the defendants in consideration of an insurer-funded settlement payment that will be made to the Company. In connection with filing of the stipulation of settlement, the Special Litigation Committee also filed a report related to its investigation of the matters alleged in the action, and its conclusions with respect thereto and with respect to the proposed settlement. The settlement is pending court approval and notification to the Company's shareholders. Given the settlement's preliminary nature, it remains possible that the stipulation of settlement may not result in a final settlement and the impact could therefore change in the near term.

Other

The Company is, at various times, also party to various other legal proceedings and claims not previously discussed which arise in the ordinary course of business. In addition, the Company may receive notifications alleging infringement of patent or other intellectual property rights. Adverse results in any such litigation, legal proceedings or claims may include awards of substantial monetary damages, expensive legal fees, costly royalty or licensing agreements, or orders preventing us from offering certain games, features, or services, and may also result in changes in the Company's business practices, which could result in additional costs or a loss of revenue and could otherwise harm the Company's business. Although the results of such litigation cannot be predicted with certainty, the Company believes that the amount or range of reasonably possible losses related to such pending or threatened litigation will not have a material adverse effect on its business, operating results, cash flows, or financial condition should such litigation be resolved unfavorably.

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

You should read the following discussion of our financial condition and results of operations in conjunction with the consolidated financial statements and the related notes included elsewhere in this Quarterly Report on Form 10-Q. The following discussion contains forward-looking statements that reflect our plans, estimates and beliefs. Our actual results could differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this Quarterly Report on Form 10-Q, particularly in "Special Note Regarding Forward-Looking Statements" and "Risk Factors." The forward-looking statements included in this Quarterly Report on Form 10-Q are made only as of the date hereof.

Overview

We are a leading provider of social game services with approximately 88 million average monthly active users of our games ("MAUs") in the second quarter of 2018. We develop, market and operate social games as live services played on mobile platforms, such as iOS and Android, and social networking sites, such as Facebook. Generally, all of our games are free to play, and we generate substantially all of our revenue through the sale of in-game virtual items ("online game revenue") and advertising services ("advertising revenue").

We are a pioneer and innovator of social games and a leader in making "play" a core activity on mobile devices and social networking sites. Our objective is to become the worldwide leader in play by connecting the world through games.

Consistent with our free-to-play business model, a small portion of our players have historically been payers. Because the opportunity for social interactions increases as the number of players increases, we believe that maintaining and growing our overall number of players, including the number of players who may not purchase virtual items, is important to the success of our business. As a result, we believe that the number of players who choose to purchase virtual items will continue to constitute a small portion of our overall players.

Our top three online game revenue-generating games historically have contributed a significant portion of our revenue, though the games that represent our top three online game revenue-generating games vary over time. Our top three online game revenue-generating games accounted for 45%, 44% and 53% of our online game revenue in 2017, 2016 and 2015, respectively. With respect to advertising and other revenue, our Words with Friends games generated a substantial portion of our advertising and other revenue in 2017, 2016 and 2015.

How We Generate Revenue

We operate our social games as live services that allow players to play for free. We generate revenue primarily from the sale of in-game virtual items and advertising services. Revenue growth will continue to depend largely on our ability to attract and retain players and more effectively monetize our player base through the sale of in-game virtual items and advertising. We intend to do this through the launch of new games, enhancements to current games and expansion into new markets and distribution platforms.

Online game. We provide our players with the opportunity to purchase virtual items that enhance their game-playing experience. We believe players choose to pay for virtual items for the same reasons they are willing to pay for other forms of entertainment – they enjoy the additional playing time or added convenience, the ability to personalize their own game boards, the satisfaction of leveling up and the opportunity for sharing creative expressions. We believe players are more likely to purchase virtual items when they are connected to and playing with their friends, whether those friends play for free or also purchase virtual items. Players may also elect to pay a one-time download fee to obtain certain mobile games free of third-party advertisements.

In 2018, our business continued generating a higher percentage of revenue and bookings through mobile platforms than through the Facebook platform. In the six months ended June 30, 2018, we estimate that 50%, 37% and 10% of our revenue and bookings were generated on Apple, Google and Facebook platforms, respectively, while in the same period of the prior year, we estimate that 50%, 32% and 14% of revenue and 51%, 33% and 12% of our bookings were generated on Apple, Google and Facebook platforms, respectively. This information is estimated because certain payment methods we accept and certain advertising networks do not allow us to determine the platform used.

On platforms other than Facebook, players purchase our virtual items through various widely accepted payment methods offered in the games, including Apple iTunes accounts, Google Play accounts, PayPal and credit cards. For all payment transactions in our games under Facebook's local currency-based payments program, Facebook remits to us an amount equal to 70% of the price we requested to be charged to our player.

Advertising and other. Advertising revenue primarily includes mobile and display ads, engagement ads and offers and branded virtual items and sponsorships. Other revenue primarily consists of licensing of our brands.

Key Metrics

We regularly review a number of metrics, including the following key financial and operating metrics, to evaluate our business, measure our performance, identify trends in our business, prepare financial projections and make strategic decisions.

Key Financial Metrics

Bookings. Bookings is a non-GAAP financial measure that is equal to revenue recognized plus or minus the change in deferred revenue during the period. We record the sale of virtual items as deferred revenue and then recognize that revenue over the estimated average playing period of payers or as the virtual items are consumed. Advertising sales consisting of certain branded virtual items and sponsorships are also initially recorded to deferred revenue and then recognized ratably over the estimated life of the branded virtual item, similar to online game revenue, or over the term of the advertising arrangement, depending on the nature of the agreement. Bookings is a fundamental top-line metric we use to manage our business, as we believe it is a useful indicator of the sales activity in a given period. Over the long-term, the factors impacting our revenue and bookings are the same. However, in the short term, there are factors that may cause revenue to exceed or be less than bookings in any period.

We use bookings to evaluate the results of our operations, generate future operating plans and assess the performance of our company. While we believe that this non-GAAP financial measure is useful in evaluating our business, this information should be considered as supplemental in nature and is not intended to be considered in isolation of, as a substitute for, or as superior to, revenue recognized in accordance with U.S. GAAP. In addition, other companies, including companies in our industry, may calculate bookings differently or not at all, which reduces its usefulness as a comparative measure.

The following table presents a reconciliation of revenue to bookings for each of the periods presented (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Reconciliation of Revenue to Bookings:				
Revenue	$ 217,045	$ 209,231	$ 425,277	$ 403,515
Change in deferred revenue	16,884	(53)	28,124	13,021
Bookings	$ 233,929	$ 209,178	$ 453,401	$ 416,536

Limitations of Bookings

Key limitations of bookings are:

- bookings do not reflect that we defer and recognize online game revenue and revenue from certain advertising transactions over the estimated average playing period of payers, the average life of branded virtual items, the term of the advertising arrangement or as virtual items are consumed; and
- other companies, including companies in our industry, may calculate bookings differently or not at all, which reduces their usefulness as a comparative measure.

Because of these limitations, you should consider bookings along with other financial performance measures, including revenue, net income (loss) and our other financial results presented in accordance with U.S. GAAP.

Key Operating Metrics

We manage our business by tracking several operating metrics: “DAUs,” which measure daily active users of our games, “MAUs,” which measure monthly active users of our games, “MUUs,” which measure monthly unique users of our games, “MUPs,” which measure monthly unique payers in our games, and “ABPU,” which measures our average daily bookings per average DAU, each of which is recorded by our internal analytics systems. The numbers for these operating metrics are calculated using internal company data based on tracking of user account activity. We also use information provided by third parties, including third party network logins provided by platform providers, to help us track whether a player logged in under two or more different user accounts is the same individual. We believe that the amounts are reasonable estimates of our user base for the applicable period of measurement; however, factors relating to user activity and systems may impact these numbers.

DAUs. We define DAUs as the number of individuals who played one of our games during a particular day. Under this metric, an individual who plays two different games on the same day is counted as two DAUs. We use information provided by third parties to help us identify individuals who play the same game to reduce this duplication. However, because we do not always have the third party network login data to link an individual who has played under multiple user accounts, a player may be counted as multiple DAUs. Average DAUs for a particular period is the average of the DAUs for each day during that period. We use DAUs as a measure of audience engagement.

MAUs. We define MAUs as the number of individuals who played one of our games in the 30-day period ending with the measurement date. Under this metric, an individual who plays two different games in the same 30-day period is counted as two MAUs. We use information provided by third parties to help us identify individuals who play the same game to reduce this duplication. However, because we do not always have the third party network login data to link an individual who has played under multiple user accounts, a player may be counted as multiple MAUs. Average MAUs for a particular period is the average of the MAUs at each month-end during that period. We use MAUs as a measure of total game audience size.

MUUs. We define MUUs as the number of individuals who played one or more of our games, which we were able to verify were played by the same individual in the 30-day period ending with the measurement date. An individual who plays more than one of our games in a given 30-day period would be counted as a single MUU to the extent we can verify that the games were played by the same individual. However, because we do not always have the third party network login data necessary to link an individual who has paid under multiple user accounts in a given 30-day period, an individual may be counted as multiple MUUs. Because many of our players play more than one game in a given 30-day period, MUUs are always equal to or lower than MAUs in any given time period. Average MUUs for a particular period is the average of the MUUs at each month end during that period. We use MUUs as a measure of total audience reach across our network of games.

MUPs. We define MUPs as the number of individuals who made a payment at least once during the applicable 30-day period through a payment method for which we can quantify the number of individuals, including payers from certain mobile games. MUPs does not include individuals who use certain payment methods for which we cannot quantify the number of unique payers. However, because we do not always have the third party network login data necessary to link an individual who has paid under multiple user accounts in a 30-day period, a player who has paid using multiple user accounts may be counted as multiple MUPs. MUPs are presented as an average of the three months in the applicable quarter. We use MUPs as a measure of the number of individuals who made payments across our network of games during a 30-day period.

ABPU. We define ABPU as our total bookings in a given period, divided by the number of days in that period, divided by, the average DAUs during the period. We believe that ABPU provides useful information to investors and others in understanding and evaluating our results in the same manner as management. We use ABPU as a measure of overall monetization across all of our players through the sale of virtual items and advertising.

Our business model our social games is designed so that, as there are more players that play our games, social interactions increase and the more valuable our games and our business become. All engaged players of our games help drive our bookings and, consequently, both online game revenue and advertising revenue. Virtual items are purchased by players who are socializing with, competing against or collaborating with other players, most of whom do not buy virtual items. Accordingly, we primarily focus on bookings, DAUs, MAUs, MUUs, MUPs and ABPU, which together we believe best reflect key audience metrics.

The table below shows average DAUs, MAUs, MUUs, MUPs and ABPU for the three and six months ended June 30, 2018 and 2017:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
	(users and payers in millions)			
Average DAUs[1]	23	21	24	21
Average MAUs[1]	88	80	91	76
Average MUUs[2]	53	52	52	54
Average MUPs[2]	1.1	1.2	1.1	1.3
ABPU	$0.110	$0.109	$ 0.103	$ 0.108

(1) For the three and six months ended June 30, 2018, DAUs and MAUs incrementally include Daily Celebrity Crossword, Solitaire, our Facebook Instant Games, the casual card games acquired in December 2017 and games acquired from Gram Games in May 2018 because we do not have the third party network login data to link an individual who has played under multiple user accounts. For the three and six months ended June 30, 2017, DAUs and MAUs incrementally include Daily Celebrity Crossword, Solitaire and our Facebook Instant Games. As such, actual DAU and MAU may be lower than reported due to the potential duplication of these individuals.

(2) Games referenced in footnote (1) are excluded from MUUs and MUPs to avoid potential double counting as our systems are unable to distinguish whether a player of these games is also a player of the Company's other games during the applicable time periods.

Average DAUs and MAUs increased in the three months ended June 30, 2018 compared to the same period of the prior year primarily due to contribution from the casual card games acquired in December 2017 and games acquired from Gram Games in May 2018, supplemented by an increase in average DAUs and MAUs for games on mobile messenger platforms (i.e. Facebook Instant Games) and Zynga Poker. These increases were partially offset by a decrease in average DAUs and MAUs for Solitaire. Average MUUs and MUPs were relatively flat when comparing the three months ended June 30, 2018 to the same period of the prior year. ABPU increased in the three months ended June 30, 2018 compared to the same period of the prior year due to a larger increase in bookings relative to average DAUs.

Other Metrics

Although our management primarily focuses on the operating metrics above, we also monitor periodic trends in our paying players. The table below shows average monthly unique payer bookings, average MUPs and unique payer bookings per unique payer:

	Three Months Ended June 30,	
	2018	2017
Average monthly unique payer bookings (in millions)(1)	$ 52	$ 54
Average MUPs (in millions)(2)	1.1	1.2
Monthly unique payer bookings per MUP(3)	$ 48	$ 45

(1) Average monthly unique payer bookings represent the monthly average amount of bookings for the applicable quarter that we received through payment methods for which we can quantify the number of unique payers and excludes bookings from certain payment methods for which we cannot quantify the number of unique payers. Also excluded are bookings from advertising. For the three months ended June 30, 2018, bookings from Daily Celebrity Crossword, Solitaire, our Facebook Instant Games, the casual card games acquired in December 2017 and games acquired from Gram Games in May 2018 are excluded. For the three months ended June 30, 2017, bookings from Daily Celebrity Crossword, Solitaire and our Facebook Instant Games are excluded.

(2) For the three months ended June 30, 2018, MUPs from Daily Celebrity Crossword, Solitaire, our Facebook Instant Games, the casual card games acquired in December 2017 and games acquired from Gram Games in May 2018 are excluded. For the three months ended June 30, 2017, MUPs from Daily Celebrity Crossword, Solitaire and our Facebook Instant Games are excluded.

(3) Monthly unique payer bookings per MUP is calculated by dividing average monthly unique payer bookings by average MUPs.

When comparing the three months ended June 30, 2018 to the same period of the prior year, average monthly unique payer bookings decreased primarily due to declines in unique payer bookings from FarmVille 2, Dawn of Titans and Wizard of Oz: Magic Match, while monthly unique payer bookings per MUP increased due to a smaller decline in bookings relative to average MUPs.

Although we monitor our unique payer metrics, we focus on monetization, including in-game advertising, of all of our players and not just those who are payers. Accordingly, we strive to enhance content and our players' game experience to increase our bookings and ABPU, which is a measure of overall monetization across all of our players through the sale of virtual items and advertising. Future growth in audience and engagement will depend on our ability to retain current players, attract new players, launch new games and expand into new markets and distribution platforms, and the success of our network. Our operating metrics may not correlate directly to quarterly bookings or revenue trends in the short term.

Q2 2018 Highlights

- Gram Games Acquisition. We acquired a 100% equity interest in Gram Games, a mobile game developer of hyper-casual and puzzle games to expand our portfolio of casual games. The total purchase consideration was $299.0 million, with cash consideration totaling $255.5 million. Of the total cash consideration, $230.5 million was paid on the acquisition date and $25.0 million is retained in escrow for a period of 18 months. The remaining purchase consideration relates to contingent consideration valued at $43.5 million as of the acquisition date. The contingent consideration may be payable based on the achievement of certain future performance targets during each annual period following the acquisition date for a total of three years.
- Share Repurchase Program. We repurchased 6.9 million shares of our Class A common stock at a weighted average price of $3.51 per share for a total of $24.2 million, completing the 2016 Share Repurchase Program.
- Common Stock Share Conversion. On May 2, 2018, our founder, Mark Pincus, elected to convert certain outstanding shares of Class B common stock and all outstanding shares of Class C common stock controlled by Mr. Pincus and an affiliated investment entity into an equivalent number of shares of Class A common stock. Following the conversion, each remaining outstanding share of Class B common stock automatically converted into one share of Class A common stock. Each Zynga stockholder now has one vote per share on all matters subject to stockholder vote.

Factors Affecting Our Performance

Platform agreements. Our games are primarily distributed, marketed and promoted through third parties, primarily Apple's App Store, the Google Play Store and Facebook. Virtual items for our games are purchased through the payment processing systems of these platform providers. To date, we have generated a significant portion of our bookings, revenue and players through the Apple, Google and Facebook platforms and expect to continue to do so for the foreseeable future. We are generating an increasing portion of our bookings, revenue and players through the mobile platforms and expect that this trend will continue as we launch more games for mobile devices. Apple, Google and Facebook generally have the discretion to change their platforms' terms of service and other policies with respect to us or other developers in their sole discretion, and those changes may be unfavorable to us.

Launch of new games and release of enhancements. Our revenue and bookings results have been driven by the launch of new mobile and web games and the release of fresh content and new features in existing games. Our future success depends on our ability to innovate and provide fresh content to keep our existing players engaged as well as launch and monetize new titles on various platforms. Although the amount of revenue and bookings we generate from an enhancement to an existing game or launch of a new game or can vary significantly, we expect our revenue and bookings to be correlated to our success in releasing engaging content and features for our existing games and the success and timely launch of our new games. In addition, revenue and bookings from many of our games may decline over time after reaching a peak of popularity and player usage. We often refer to the speed of this decline as the decay rate of a game. As a result of this decline in the revenue and bookings of our games, our business depends on our ability to consistently release fresh content for our existing games and launch new games that achieve significant popularity and have the potential to become franchise games.

Game monetization. We generate most of our bookings and revenue from the sale of virtual items in our games. The degree to which our players choose to pay for virtual items in our games is driven by our ability to create content and virtual items that enhance the game-play experience. Our revenue, bookings and overall financial performance are affected by the number of players and the effectiveness of our monetization of players through the sale of virtual items and advertising. In addition, mobile and international players have historically monetized at a lower level than web and U.S. players, respectively. The percentage of paying mobile and international players may increase or decrease based on a number of factors, including growth in mobile games as a percentage of total game audience and our overall international players, localization of content and the availability of payment options.

Investment in game development. In order to develop new games and enhance the content and features in our existing games, we must continue to invest in a significant amount of engineering and creative resources. These expenditures generally occur in advance of the launch of a new game or the release of new content, and the resulting revenue may not equal or exceed our development costs, or the game or feature may be abandoned in its entirety.

Player acquisition costs. We utilize advertising and other forms of player acquisition and retention to grow and retain our player audience. These expenditures generally relate to the promotion of new game launches and ongoing performance-based programs to drive new player acquisition and lapsed player reactivation. Over time, these acquisition and retention-related programs may become either less effective or costlier, negatively impacting our operating results. Additionally, as our player base becomes more heavily concentrated on mobile platforms, our ability to drive traffic to our games through unpaid channels may become diminished, and the overall cost of marketing our games may increase.

New market development. We are investing in new distribution channels, mobile platforms and international markets to expand our reach and grow our business. For example, we have continued to hire additional employees and acquire companies with experience developing mobile applications. Our ability to be successful will depend on our ability to develop a successful mobile network, obtain new players and retain existing players on new and existing social networks and attract advertisers.

As we expand into new markets and distribution channels, we expect to incur headcount, marketing and other operating costs in advance of the associated revenue and bookings. Our financial performance will be impacted by our investment in these initiatives and their success.

Hiring and retaining key personnel. Our ability to compete depends in large part on our ability to hire and retain key talent and match that key talent to our current business needs. We are continually reviewing our hiring and retention programs against best practices and for optimal efficiencies. In addition to employee attrition, we have also implemented, and continue to implement, certain cost reduction initiatives to better align our operating expenses with our revenue, including reducing or redeploying our headcount, hiring in lower cost geographies, and consolidating certain facilities.

Tax Cuts and Jobs Act

In January 2018, the SEC staff issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act ("SAB 118") to provide guidance for companies that did not complete accounting for the income tax effects of the 2017 Tax during the fourth quarter of 2017 (i.e., the period of enactment). Specifically, SAB 118 states that companies that did not complete accounting for the effects of the 2017 Tax Act in the period of enactment may report provisional amounts based on reasonable estimates for items for which the accounting is incomplete. Any provisional amounts are subject to adjustment during a measurement period that begins in the reporting period that includes the 2017 Tax Act's enactment date and ends when a company has obtained, prepared and analyzed the information needed to complete the accounting requirements under ASC 740 Income Taxes. The measurement period should not extend beyond one year from the enactment date. Furthermore, SAB 118 states that if a company cannot make a reasonable estimate for an income tax effect, it should not account for that effect until it can make such an estimate.

In accordance with SAB 118, we recorded a provisional $5.0 million income tax benefit during the fourth quarter of 2017, which primarily consisted of a $2.4 million income tax benefit in connection with re-measurement of certain deferred tax assets and liabilities and a $2.6 million income tax benefit in connection with the refundable AMT credit. Those amounts were initially recorded as provisional as we believed that additional analysis of our deferred tax assets and liabilities was necessary, as well as the evaluation of potential correlative adjustments. We continue to gather additional information necessary and await interpretative guidance from the Internal Revenue Service and United States Treasury, specifically as it relates to the global intangible low-taxed income ("GILTI") and Base Erosion and Anti-Abuse Tax provisions of the 2017 Tax Act, to complete our accounting for these items within the prescribed measurement period.

With respect to the GILTI provisions, companies may make an accounting policy election to either (i) account for GILTI as a component of tax expense in the period in which the entity is subject to the rules or (ii) account for GILTI in the entity's measurement of deferred taxes. Our selection of an accounting policy will depend, in part, on analyzing our global income to determine whether we expect to have future U.S. inclusions in taxable income related to GILTI and, if so, the impact that is expected. Whether we expect to have future U.S. inclusions in taxable income related to GILTI depends on a number of aspects of our estimated future results of global operations, and as a result, we are not yet able to make our accounting policy election. Therefore, we have not recorded any deferred tax effects related to GILTI for the three and six months ended June 30, 2018.

Results of Operations

Revenue

	Three Months Ended June 30,			Six Months Ended June 30,		
	2018	2017[1]	% Change	2018	2017[1]	% Change
	(dollars in thousands)			(dollars in thousands)		
Online game:						
Mobile	$ 143,026	$ 139,250	3 %	$ 282,856	$ 266,489	6 %
Web	21,654	24,495	(12)%	43,377	50,737	(15)%
Online game total	164,680	163,745	1 %	326,233	317,226	3 %
Advertising and other:						
Mobile	49,718	40,618	22 %	92,489	74,992	23 %
Web	2,528	3,825	(34)%	4,582	9,505	(52)%
Other	119	1,043	(89)%	1,973	1,792	10 %

Advertising and other total		52,365		45,486	15	%		99,044		86,289	15	%
Total revenue	$	217,045	$	209,231	4	%	$	425,277	$	403,515	5	%

(1) Amounts have not been retrospectively adjusted to reflect the adoption of ASC Topic 606.

Three Months Ended June 30, 2018 Compared to Three Months Ended June 30, 2017

Total revenue increased $7.8 million in the three months ended June 30, 2018 compared to the same period of the prior year, while bookings increased $24.8 million in the three months ended June 30, 2018 compared to the same period of the prior year. Average DAUs increased from 21 million in the three months ended June 30, 2017 to 23 million in the three months ended June 30, 2018, ABPU increased from $0.109 in the three months ended June 30, 2017 to $0.110 in the three months ended June 30, 2018 and average MUPs decreased from 1.2 million in the three months ended June 30, 2017 to 1.1 million in the three months ended June 30, 2018.

Online game revenue increased $0.9 million in the three months ended June 30, 2018 compared to the same period of the prior year, with mobile online game revenue accounting for $3.7 million of the increase, offset by a decrease in web online game revenue of $2.8 million.

The increase in mobile online game revenue of $3.7 million was primarily attributable to an increase in revenue from Zynga Poker in the amount of $5.5 million. Mobile online game revenue increased for Zynga Poker due to growth in bookings and audience metrics in the game. This increase was offset by a decrease in mobile online game revenue from Black Diamond Slots of $2.1 million due to the overall decay rate in bookings and audience metrics in this game. All other mobile games accounted for the remaining net increase of $0.3 million in mobile online game revenue. The decrease in web online game revenue of $2.8 million was primarily attributable to a $2.6 million decrease in revenue from FarmVille 2, due to the overall decay rate in bookings and audience metrics in this game. All other web games accounted for the remaining net decrease of $0.2 million in web online game revenue.

For the three months ended June 30, 2018, we recognized $0.5 million of online game revenue and income from operations from games that have been discontinued as there is no further performance obligation. This change in estimate did not impact our reported earnings per share for the three months ended June 30, 2018. For the three months ended June 30, 2017, there were no discontinued games that required adjusting the recognition period of deferred revenue generated in prior periods. Further, for both the three months ended June 30, 2018 and 2017, there were no changes in our estimated average life of durable virtual items that required adjusting the recognition period of deferred revenue generated in prior periods.

In the three months ended June 30, 2018, Zynga Poker (mobile and web), CSR Racing 2 (mobile), Hit It Rich! Slots (mobile and web) and Wizard of Oz Slots (mobile and web) were our top online revenue-generating games and comprised 23%, 13%, 11% and 10%, respectively, of our online game revenue for the period. In the three months ended June 30, 2017, Zynga Poker (mobile and web), CSR Racing 2 (mobile), Wizard of Oz Slots (mobile and web) and Hit It Rich! Slots (mobile and web) were our top revenue-generating games and comprised 21%, 14%, 10% and 10%, respectively, of our online game revenue for the period. No other game generated more than 10% of online game revenue during either of these periods.

Consumable virtual items accounted for 47% of online game revenue in the three months ended June 30, 2018 and 43% of online game revenue in the same period of the prior year. Durable virtual items accounted for 53% of online game revenue in the three months ended June 30, 2018 and 57% of online game revenue in the same period of the prior year. The estimated weighted average life of durable virtual items was 9 months in the three months ended June 30, 2018, compared to 8 months in the same period of the prior year.

Advertising and other revenue increased $6.9 million in the three months ended June 30, 2018 as compared to the same period of the prior year, with mobile advertising revenue accounting for $9.1 million of the increase, offset by a decrease in web advertising revenue and other revenue of $1.3 million and $0.9 million, respectively.

The increase in mobile advertising revenue of $9.1 million was primarily due to an increase in mobile in-game display ads of $6.0 million, primarily driven by new product introductions in Words with Friends games and recently acquired games (i.e. the casual card games acquired in December 2017 and games acquired from Gram Games in May 2018), partially offset by a lower cost per thousand impressions rate from the prior year due to a shift in product mix. The increase in mobile advertising revenue was also attributed to an increase in mobile in-game offers, engagement and other revenue of $2.9 million. The decrease in web advertising revenue of $1.3 million was primarily due to a decrease in web in-game display ads of $1.2 million which is consistent with the continual decline in our web games. The decrease in other revenue of $0.9 million was due to a decrease in licensing revenue in the three months ended June 30, 2018.

International revenue as a percentage of total revenue was 34% in the three months ended June 30, 2018 and 33% in the same period of the prior year.

Six Months Ended June 30, 2018 Compared to Six Months Ended June 30, 2017

Total revenue increased $21.8 million in the six months ended June 30, 2018 compared to the same period of the prior year, while bookings increased $36.9 million in the six months ended June 30, 2018 compared to the same period of the prior year. Average DAUs increased from 21 million in the six months ended June 30, 2017 to 24 million in the six months ended June 30, 2018, ABPU decreased from $0.108 in the six months ended June 30, 2017 to $0.103 in the six months ended June 30, 2018 and average MUPs decreased from 1.3 million in the six months ended June 30, 2017 to 1.1 million in the six months ended June 30, 2018.

Online game revenue increased $9.0 million in the six months ended June 30, 2018 compared to the same period of the prior year, with mobile online game revenue accounting for $16.4 million of the increase, offset by a decrease in web online game revenue of $7.4 million.

The increase in mobile online game revenue of $16.4 million was primarily attributable to increases in revenue from Zynga Poker, Dawn of Titans, 101 YuzbBir Okey Plus and Words with Friends in the amounts of $9.4 million, $6.2 million, $3.0 million and $2.9 million, respectively. Mobile online game revenue increased for Zynga Poker and Words with Friends due to growth in bookings and audience metrics in the games, while mobile online game revenue increased for Dawn of Titans as a result of higher amortization of prior period deferred revenue. Lastly, mobile online game revenue increased for 101 YuzbBir Okey Plus as this game was acquired in December 2017. These increases were offset by a decrease in mobile online game revenue from Black Diamond Slots of $3.7 million due to the overall decay rate in bookings and audience metrics in this game. All other mobile games accounted for the remaining net decrease of $1.4 million in mobile online game revenue. The decrease in web online game revenue of $7.4 million was primarily attributable to a decrease in revenue from FarmVille 2 of $6.6 million, due to the overall decay rate in bookings and audience metrics in this game. All other web games accounted for the remaining net decrease of $0.8 million in web online game revenues.

For the six months ended June 30, 2018, we recognized $0.9 million of online game revenue and income from operations from games that have been discontinued as there is no further performance obligation. This change in estimate had a $0.01 per share impact on our reported earnings per share in the six months ended June 30, 2018. For the six months ended June 30, 2017, there were no discontinued games that required adjusting the recognition period of deferred revenue generated in prior periods. Further, for both the six months ended June 30, 2018 and 2017, there were no changes in our estimated average life of durable virtual items that required adjusting the recognition period of deferred revenue generated in prior periods.

In the six months ended June 30, 2018, Zynga Poker (mobile and web), CSR Racing 2 (mobile), Hit It Rich! Slots (mobile and web) and Wizard of Oz Slots (mobile and web) were our top online revenue-generating games and comprised 23%, 13%, 11% and 10%, respectively, of our online game revenue for the period. In the six months ended June 30, 2017, Zynga Poker (mobile and web), CSR Racing 2 (mobile), Hit It Rich! Slots (mobile and web), and Wizard of Oz Slots (mobile and web) were our top revenue-generating games and comprised 22%, 13%, 10% and 10%, respectively, of our online game revenue for the period. No other game generated more than 10% of online game revenue during either of these periods.

Consumable virtual items accounted for 46% of online game revenue in the six months ended June 30, 2018 and 45% of online game revenue in the same period of the prior year. Durable virtual items accounted for 54% of online game revenue in the six months ended June 30, 2018 and 55% of online game revenue in the same period of the prior year. The estimated weighted average life of durable virtual items was 9 months for both the six months ended June 30, 2018 and 2017.

Advertising and other revenue increased $12.8 million in the six months ended June, 2018 as compared to the same period of the prior year, with mobile advertising revenue accounting for $17.5 million and other revenue accounting for $0.2 million of the increase, partially offset by a decrease in web advertising of $4.9 million.

The increase in mobile advertising revenue of $17.5 million was primarily due to an increase in mobile in-game display ads of $12.7 million, partially driven by new product introductions in Words with Friends and recently acquired games (i.e. the casual card games acquired in December 2017 and games acquired from Gram Games in May 2018), partially offset by a lower cost per thousand impressions rate from the prior year due to a shift in product mix. The increase in mobile advertising revenue was also attributed to an increase in mobile in-game offers, engagement ads and mobile other revenue of $4.8 million. The decrease in web advertising revenue of $4.9 million was primarily due to a decrease in web in-game display ads of $4.9 million, which is consistent with the continual decline in our web games.

International revenue as a percentage of total revenue was 35% in the six months ended June 30, 2018 and 34% in the same period of the prior year.

Cost of revenue

	Three Months Ended June 30,			Six Months Ended June 30,		
	2018	2017	% Change	2018	2017	% Change
	(dollars in thousands)			(dollars in thousands)		
Cost of revenue	$ 74,182	$ 64,172	16 %	$ 143,224	$ 129,049	11 %

Three Months Ended June 30, 2018 Compared to Three Months Ended June 30, 2017

Cost of revenue increased $10.0 million in the three months ended June 30, 2018 compared to the same period of the prior year. The increase was primarily attributable to increases of $5.6 million in payment processing fees from bookings generated from mobile payment processors, $2.6 million in intangible asset amortization driven by our acquisitions in December 2017 and May 2018 and $0.7 million in headcount-related expenses.

Six Months Ended June 30, 2018 Compared to Six Months Ended June 30, 2017

Cost of revenue increased $14.2 million in the six months ended June 30, 2018 compared to the same period of the prior year. The increase was primarily attributable to increases of $8.9 million in payment processing fees from bookings generated from mobile payment processors, $2.7 million in intangible asset amortization driven by our acquisitions in December 2017 and May 2018 and $1.4 million in headcount-related expenses.

Research and development

	Three Months Ended June 30,			Six Months Ended June 30,		
	2018	2017	% Change	2018	2017	% Change
	(dollars in thousands)			(dollars in thousands)		
Research and development	$ 67,391	$ 64,615	4 %	$ 128,216	$ 133,817	(4)%

Three Months Ended June 30, 2018 Compared to Three Months June 30, 2017

Research and development expenses increased $2.8 million in the three months ended June 30, 2018 compared to the same period of the prior year. The increase was primarily attributable to increases of $1.7 million in consulting-related expenses, $1.5 million of an increase in the fair value of the contingent consideration related to our Gram Games acquisition and $0.7 million in technology related costs, partially offset by a decline in restructuring related costs of $1.4 million.

Six Months Ended June 30, 2018 Compared to Six Months Ended June 30, 2017

Research and development expenses decreased $5.6 million in the six months ended June 30, 2018 compared to the same period of the prior year. The decrease was primarily attributable to decreases of $5.9 million in headcount-related expenses, $3.2 million in stock-based compensation expense and $2.2 million of lower overhead costs from changes in headcount, partially offset by increases of $1.7 million for consulting-related expenses, $1.5 million of an increase in the fair value of the contingent consideration related to our Gram Games acquisition and $1.2 million in technology related costs.

Sales and marketing

	Three Months Ended June 30,			Six Months Ended June 30,		
	2018	2017	% Change	2018	2017	% Change
	(dollars in thousands)			(dollars in thousands)		
Sales and marketing	$ 52,878	$ 51,201	3 %	$ 103,733	$ 97,821	6 %

Three Months Ended June 30, 2018 Compared to Three Months Ended June 30, 2017

Sales and marketing expenses increased $1.7 million in the three months ended June 30, 2018 compared to the same period of the prior year. The increase was primarily attributable to a $1.8 million increase in headcount-related expense.

Six Months Ended June 30, 2018 Compared to Six Months Ended June 30, 2017

Sales and marketing expenses increased $5.9 million in the six months ended June 30, 2018 compared to the same period of the prior year. The increase was primarily attributable to increases of $4.0 million in headcount-related expense, $2.2 million in marketing expense, $0.5 million of stock-based compensation expense, $0.4 million of higher overhead costs from changes in headcount and $0.3 million of technology related costs, partially offset by a decrease of $1.9 million in intangible asset amortization.

General and administrative

	Three Months Ended June 30,			Six Months Ended June 30,		
	2018	2017	% Change	2018	2017	% Change
	(dollars in thousands)			(dollars in thousands)		
General and administrative	$ 25,580	$ 23,551	9 %	$ 48,833	$ 46,116	6 %

Three Months Ended June 30, 2018 Compared to Three Months Ended June 30, 2017

General and administrative expenses increased $2.0 million in the three months ended June 30, 2018 compared to the same period of the prior year. The increase was primarily attributable to $1.2 million in acquisition-related expenses from our Gram Games acquisition in May 2018 and $0.6 million in stock-based compensation expense.

Six Months Ended June 30, 2018 Compared to Six Months Ended June 30, 2017

General and administrative expenses increased $2.7 million in the six months ended June 30, 2018 compared to the same period of the prior year. The increase was primarily attributable to increases of $1.4 million in higher overhead costs from changes in headcount and $1.2 million in acquisition-related expenses from our Gram Games acquisition in May 2018.

Interest income

	Three Months Ended June 30,			Six Months Ended June 30,		
	2018	2017	% Change	2018	2017	% Change
	(dollars in thousands)			(dollars in thousands)		
Interest income	$ 1,800	$ 1,109	62 %	$ 3,610	$ 2,046	76 %

Three Months Ended June 30, 2018 Compared to Three Months Ended June 30, 2017

Interest income increased $0.7 million in the three months ended June 30, 2018 compared to the same period of the prior year. The increase was primarily attributable to a higher rate of return driven by an increase in market interest rates and the investment in short-term investments.

Six Months Ended June 30, 2018 Compared to Six Months Ended June 30, 2017

Interest income increased $1.6 million in the six months ended June 30, 2018 compared to the same period of the prior year. The increase was primarily attributable to a higher rate of return driven by an increase in market interest rates and the investment in short-term investments.

Other income (expense), net

	Three Months Ended June 30,			Six Months Ended June 30,		
	2018	2017	% Change	2018	2017	% Change
	(dollars in thousands)			(dollars in thousands)		
Other income (expense), net	$ 2,605	$ 1,614	61 %	$ 6,006	$ 3,050	97 %

Three Months Ended June 30, 2018 Compared to Three Months Ended June 30, 2017

Other income (expense), net increased $0.9 million in the three months ended June 30, 2018 compared to the same period of the prior year. The increase was primarily attributable to an increase in net rental income, driven by the industrial gross lease entered into during the second quarter of 2017 for which revenue began to be recognized in September 2017.

Six Months Ended June 30, 2018 Compared to Six Months Ended June 30, 2017

Other income (expense), net increased $3.0 million in the six months ended June 30, 2018 compared to the same period of the prior year. The increase was primarily attributable to an increase in net rental income, driven by the industrial gross lease entered into during the second quarter of 2017 for which revenue began to be recognized in September 2017.

Provision for (benefit from) income taxes

	Three Months Ended June 30,			Six Months Ended June 30,		
	2018	2017	% Change	2018	2017	% Change
	(dollars in thousands)			(dollars in thousands)		
Provision for (benefit from) income taxes	$ 2,330	$ 3,322	(30)%	$6,189	$6,189	NM

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Three Months Ended June 30, 2018 Compared to Three Months Ended June 30, 2017

The provision for income taxes decreased $1.0 million in the three months ended June 30, 2018 compared to the same period of the prior year. The decrease was primarily attributable to a benefit generated from the post-acquisition statutory operating loss from Gram Games, partially offset by changes in our jurisdictional mix of earnings.

Six Months Ended June 30, 2018 Compared to Six Months Ended June 30, 2017

The fluctuation in the provision for income taxes for the six months ended June 30, 2018 as compared to the same period of the prior year was flat due to a benefit generated from the post-acquisition statutory operating loss from Gram Games, offset by changes in our jurisdictional mix of earnings.

Liquidity and Capital Resources

	Six Months Ended June 30,	
	2018	2017 (As Adjusted)[(1)]
	(in thousands)	
Consolidated Statements of Cash Flows Data:		
Acquisition of property and equipment	$ (3,679)	$ (4,141)
Depreciation and amortization	16,909	16,279
Cash flows provided by (used in) operating activities	37,188	32,909
Cash flows provided by (used in) investing activities	(120,519)	(38,799)
Cash flows provided by (used in) financing activities	(75,232)	(107,445)

(1) Prior period amounts retrospectively adjusted to reflect the adoption of ASU 2016-18, “Statement of Cash Flows (Topic 230): Restricted Cash”. Refer to the sub-header “Recent Accounting Pronouncements” in Note 1 – “Overview and Summary of Significant Accounting Policies” in the notes to the interim consolidated financial statements for further discussion on the adoption.

Our principal liquidity requirements are our lease, licensing and marketing commitments, hosting commitments, capital expenditure needs, including strategic purchases and acquisitions, and any share repurchase activity we choose to effect. We expect to finance our operations through cash provided by operating activities and cash on hand. However, we cannot be certain that these sources will be sufficient to finance our operations and our share repurchase activity, and we may seek additional financing in the future. As of June 30, 2018 and December 31, 2017, we had cash and cash equivalents of approximately $210.1 million and $372.9 million, respectively, which consisted of cash, money market funds and corporate debt securities.

During 2017, we repurchased 36.3 million shares of our Class A common stock under the 2016 Share Repurchase Program at a weighted average price of $2.78 per share for a total of $101.0 million. During the three months ended June 30, 2018, we repurchased 6.9 million shares of our Class A common stock under the repurchase program at a weighted average price of $3.51 per share for a total of $24.2 million and during the six months ended June 30, 2018, we repurchased 18.2 million shares of our Class A common stock under the repurchase program at a weighted average price of $3.59 per share for a total of $65.4 million, completing the 2016 Share Repurchase Program.

In April 2018, a new share repurchase program was authorized for up to $200.0 million of our outstanding Class A common stock. The timing and amount of any stock repurchases will be determined based on market conditions, share price and other factors. The program does not require us to repurchase any specific number of shares of our Class A common stock, and may be modified, suspended or terminated at any time without notice.

Operating Activities

After adjusting our net income of $4.7 million for noncash items, operating activities provided $37.2 million of cash, cash equivalents and restricted cash during the six months ended June 30, 2018. Significant noncash items included stock-based compensation expense of $31.5 million and depreciation and amortization of $16.9 million. Changes in our operating assets and liabilities resulted in a $17.4 million outflow of cash, cash equivalents and restricted cash in the six months ended June 30, 2018, primarily due to changes in other liabilities of $31.0 million, which included the $11.9 million settlement payment related to the Zindagi matter during the first quarter of 2018. The outflow was further supplemented by the change in accounts payable, prepaid and other assets and income taxes payable, which resulted in outflows of $16.3 million, $7.2 million and $5.0 million, respectively, partially offset by an inflow from the changes in deferred revenue and accounts receivable, net, of $28.1 million and $14.0 million, respectively. The cash inflow from the change in deferred revenue was primarily attributable to strong sales, which were further supplemented by our Gram Games acquisition in May 2018.

Investing Activities

Investing activities used $120.5 million of cash, cash equivalents and restricted cash during the six months ended June 30, 2018. The primary outflow of cash, cash equivalents and restricted cash associated with investing activities was $222.1 million from our Gram Games acquisition in May 2018 and $22.8 million in escrow releases for prior acquisitions (i.e. Peak Games and our Harpan and PuzzleSocial acquisitions), partially offset by a net inflow of $127.9 million from net sales, maturities and purchases of short-term investments, primarily to finance the Gram Games acquisition.

Financing Activities

Financing activities used $75.2 million of cash, cash equivalents and restricted cash during the six months ended June 30, 2018. The primary outflow of cash, cash equivalents and restricted cash associated with financing activities was $65.4 million of repurchases of our Class A common stock.

Off-Balance Sheet Arrangements

We did not have any off-balance sheet arrangements during the three and six months ended June 30, 2018.

Contractual Obligations [(1)]

Year ending December 31:	Lease	Licensor and Marketing	Other	Total
Remaining 2018	$4,196	$ 9,112	$6,959	$20,267
2019	8,421	19,500	3,731	31,652
2020	6,292	32,750	674	39,716
2021	5,282	—	—	5,282
2022	1,548	—	—	1,548
Thereafter	—	—	—	—
Total	$25,739	$ 61,362	$11,364	$98,465

(1) The amounts represented in the table reflect our minimum cash obligations for the respective calendar years based on contractual terms, but not necessarily the periods in which they will be expensed in the Company's consolidated statement of operations.

Lease Commitments

Our lease commitments primarily consist of operating leases primarily for our office facilities. We do not have any capital lease obligations, and all of our property and equipment has been purchased with cash.

Licensor and Marketing Commitments

Licensor commitments include minimum guarantee royalty payments due to licensors for use of their brands, properties and other licensed content in our games, as well as marking commitments for specified spend related to our marketing products.

Other Commitments

Other commitments primarily include costs for hosting of data systems and other services. Excluded from other commitments is our uncertain income tax position liability of $10.2 million, as the Company cannot make a reasonably reliable estimate of the period of cash settlement.

Contingent Consideration Obligations

Under the original terms of the acquisition agreements with PuzzleSocial, the maximum amount of additional consideration that could be earned by the sellers and payable by us is $42.0 million. The amounts payable are contingent upon the achievement of certain performance targets after the date of acquisition. As of June 30, 2018, there is no estimated contingent consideration obligation related to PuzzleSocial.

Under the terms of the Gram Games acquisition, contingent consideration may be payable based on the achievement of certain future performance targets during each annual period following the acquisition date for a total of three years, with no maximum limit as to the contingent consideration achievable. At acquisition, the estimated fair value of the contingent consideration obligation was $43.5 million. However, as of June 30, 2018, the estimated fair value of the contingent consideration obligation increased to $45.0 million due to the increased probability of achievement, resulting in $1.5 million of expense recognized within research and development expense in our consolidated statement of operations for the three and six months ended June 30, 2018.

Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts in our consolidated financial statements and related notes. Our significant accounting policies are described in Note 1 to our consolidated financial statements included in our previously-filed Annual Report on Form 10-K for the year ended December 31, 2017. We have identified below our critical accounting policies and estimates that we believe require the greatest amount of judgment. These estimates and judgments have a significant impact on our consolidated financial statements. Actual results could differ materially from those estimates. The accounting policies that reflect our more significant estimates and judgments and that we believe are the most critical to fully understand and evaluate our reported financial results include the following:

- Revenue recognition
- Income taxes
- Business combinations
- Software development costs
- Stock-based compensation expense
- Goodwill
- Impairment of long-lived assets
- Licenses and royalties

Please refer to Part II, Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in our Annual Report on Form 10-K for our fiscal year ended December 31, 2017 for a more complete discussion of our critical accounting policies and estimates, including our revenue recognition accounting policy as it relates to revenue transactions accounted for prior to January 1, 2018, which were accounted for under Accounting Standards Codification Topic 605 – Revenue Recognition. With respect to revenue transactions beginning January 1, 2018 and onward, our revenue recognition accounting policy is outlined below and follows Accounting Standards Codification Topic 606 – Revenue from Contracts with Customer.

Revenue Recognition

We primarily derive revenue from the sale of virtual items associated with our online games and the sale of advertising.

Online Game. We operate our games as live services that allow players to play for free. Within these games however, players can purchase virtual currency to obtain virtual goods or virtual goods directly (together, defined as “virtual items”) to enhance their game-playing experience. Our identified performance obligation is to display the virtual items within the game over the estimated life of the paying player or until it is consumed in game play based upon the nature of the virtual item. Payment is required at time of purchase and the purchase price is a fixed amount.

Players can purchase our virtual items through various widely accepted payment methods offered in the games, including Apple iTunes accounts, Google Play accounts, Facebook local currency payments, PayPal and credit cards. Payments from players for virtual items are non-refundable and relate to non-cancellable contracts that specify our obligations. Such payments are initially recorded to deferred revenue.

For revenue earned through mobile platforms, the transaction price is equal to the gross amount we request to be charged to our player because we are the principal in the transaction. The related platform and payment processing fees as cost of revenue in the period incurred.

For revenue earned on our web based games through Facebook, our players utilize Facebook’s local currency-based payments program to purchase virtual items in our games. For all payment transactions on the Facebook platform, Facebook remits to us 70% of the price we request to be charged to the player for each transaction, which represents the transaction price. Despite being the principal in the transaction, we recognize revenue net of the amounts retained by Facebook for platform and payment processing fees because Facebook may choose to alter our requested price, for example by offering a discount or other incentives to players playing on their platform, and we do not receive information from Facebook indicating the amount of such discounts or incentives or the actual amount paid by our players. Accordingly, we are unable to determine the gross amount paid by our players on the Facebook platform.

The satisfaction of our performance obligation is dependent on the nature of the virtual item purchased and as a result, we categorize our virtual items as either consumable or durable.

- Consumable virtual items represent goods that can be consumed by a specific player action. Common characteristics of consumable virtual items may include items that are no longer displayed on the player's game board after a short period of time, do not provide the player any continuing benefit following consumption, or often times enable a player to perform an in-game action immediately (e.g. chips in Zynga Poker). For the sale of consumable virtual items, we recognize revenue as the items are consumed (i.e., over time), which approximates one month.
- Durable virtual items represent items that are accessible to the player over an extended period of time (e.g. animals in Farmville 2). We recognize revenue from the sale of durable virtual items ratably over the estimated average playing period of payers for the applicable game (i.e., over time), which represents our best estimate of the average life of the durable virtual item.
- If we do not have the ability to differentiate between revenue attributable to consumable virtual items versus durable virtual items for a specific game, we recognize revenue ratably over the estimated average playing period of payers for the applicable game.

Historically, we have had sufficient data to separately account for consumable and durable virtual items for substantially all of our web games. However, for our standalone mobile games, we do not have the requisite data to separately account for consumable and durable virtual items and therefore recognize mobile revenue ratably over the estimated average playing period of payers.

We expect that in future periods, there will be changes in the mix of consumable and durable virtual items offered and sold, reduced virtual item sales in some existing games, changes in estimates of the average playing period of payers and/or changes in our ability to make such estimates. When such changes occur, and in particular if more of our revenue in any period is derived from durable virtual items or the estimated average playing period of payers increases on average, the amount of revenue that we recognize in a current or future period may be reduced, perhaps significantly. Conversely, if the estimated average playing period of payers decreases on average, the amount of revenue that we recognize in a current or future period may be accelerated, perhaps significantly.

On a quarterly basis, we determine the estimated average playing period of payers by game beginning at the time of a payer's first purchase in the respective game and ending on a date when that paying player is deemed to be no longer playing. To determine when paying players are no longer playing a given game, we analyze monthly cohorts of payers who made their first in-game payment between six and 18 months prior to the beginning of each quarter and determine whether each payer within the cohort is an active or inactive player as of the date of our analysis. To determine which payers are inactive, we analyze the dates that each payer last logged into that game. We determine a payer to be inactive once they have reached a period of inactivity for which it is probable that they will not return to a specific game. For the payers deemed inactive as of our analysis date, we analyze the dates they last logged into that game to determine the rate at which inactive payers stopped playing. Based on these dates, we then project a date at which all payers for each monthly cohort are expected to cease playing our games. We then average the time periods from first purchase date and the date the last payer is expected to cease playing the game for each of the monthly cohorts to determine the total playing period of payers for that game. To determine the estimated average playing period of payers, we then divide this total period by two. The use of this "average" approach is supported by our observations that payers typically become inactive at a relatively consistent rate for our games. If future data indicates payers do not become inactive at a relatively consistent rate, we will modify our calculations accordingly. When a new game is launched and only a limited period of payer data is available for our analysis, then we also consider other factors to determine the estimated average playing period of payers, such as the estimated average playing period of payers for other recently launched games with similar characteristics.

Advertising. We have contractual relationships with advertising networks, agencies, advertising brokers and directly with advertisers for advertisements in our games. For all advertising arrangements, we are the principal and our performance obligation is to provide the inventory for advertisements to be displayed in our games. For contracts made directly with advertisers, we are also obligated to serve the advertisements in our games. However, for those direct advertising arrangements, providing the advertising inventory and serving the advertisement is considered a single performance obligation, as the advertiser cannot benefit from the advertising space without its advertisements being displayed.

For advertising transactions not placed directly with the advertiser, the transaction price is equal to the amount collected, which is generally based on our revenue share stated in the contract for the advertising inventory.

The pricing and terms for all our advertising arrangements are governed by either a master contract or insertion order and generally stipulate payment terms as a specific number of days subsequent to the end of the month, generally ranging from 30 to 60 days. The transaction price in advertising arrangements is generally the product of the number of advertising units delivered (e.g., impressions, offers completed, videos viewed, etc.) and the contractually agreed upon price per advertising unit. The number of advertising units delivered is determined at the end of each month, which resolves any uncertainty in the transaction price during the reporting period.

For a limited number of advertising network arrangements, the transaction price is determined based on a volume-tiered pricing structure, whereby the price per advertising unit in a given month is determined by the number of impressions delivered in that month. However, the number of impressions delivered is resolved at the end of each month, therefore, eliminating any uncertainty with respect to the price per advertising unit for each reporting period.

For in-game display ads, in-game offers, engagement advertisements and other advertisements, our performance obligation is satisfied over the life of contract (i.e., over time), with revenue being recognized as advertising units are delivered.

For in-game sponsorships with branded virtual items, revenue is initially recorded to deferred revenue and then recognized ratably over the estimated life of the branded virtual item, similar to online game revenue, or over the term of the advertising arrangement, depending on the nature of the agreement.

Arrangements with Multiple Performance Obligations. For arrangements with multiple performance obligations, we allocate the transaction price to each performance obligation in an amount that depicts the amount of consideration to which we expect to be entitled in exchange for satisfying each performance obligation, which is based on the standalone selling price. The standalone selling price represents the observable price which we would sell the advertising placement separately in a similar circumstance, to a similar customer.

Taxes Collected from Customers. We present taxes collected from customers and remitted to governmental authorities on a net basis within our consolidated statement of operations.

Recent Accounting Pronouncements

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

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

During the six months ended June 30, 2018, there were no significant changes to our quantitative and qualitative disclosures about market risk. Please refer to Part II, Item 7A. "Quantitative and Qualitative Disclosure About Market Risk" included in our Annual Report on Form 10-K for our fiscal year ended December 31, 2017 for a more complete discussion on the market risks we encounter.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report on Form 10-Q. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission (the "SEC") rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the Company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Based on the evaluation of our disclosure controls and procedures as of June 30, 2018, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting identified in management's evaluation pursuant to Rules 13a-15(d) or 15d-15(d) of the Exchange Act during the quarter ended June 30, 2018 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Effectiveness of Controls and Procedures

In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

For a description of our material legal proceedings, see the section titled "Legal Matters" included in Note 15 —"Commitments and Contingencies" in Part I, Item I "Notes to Consolidated Financial Statements" of this Quarterly Report on Form 10-Q which is incorporated by reference herein.

ITEM 1A. RISK FACTORS

We have identified the following risks and uncertainties that may have a material adverse effect on our business, financial condition, results of operations or reputation. The risks described below are not the only risks we face, but additional risks not presently known to us or that we currently believe are not material may also significantly affect our business, financial condition, results of operations or reputation. Our business could be harmed by any of these risks. The trading price of our Class A common stock could decline due to any of these risks, and you may lose all or part of your investment. In assessing these risks, you should also refer to the other information contained in this Quarterly Report on Form 10-Q, including our consolidated financial statements and related notes.

We have marked with an asterisk (*) those risks described below that reflect changes from, or additions to, the risks described in our Annual Report on Form 10-K for the year-ended December 31, 2017.

Risks Related to Our Business and Industry

Our business will suffer if we are unable to entertain our players, develop new games, improve the experience of our existing games, and successfully monetize our games.

Our business depends on developing, publishing and continuing to service "free-to-play" games that consumers will download and spend time and money playing. We are primarily focused on mobile gaming, offering our games on mobile devices, including smartphones and tablets on Apple's iOS and Google's Android operating systems, and on social networking platforms such as Facebook. We have devoted and we expect to continue to devote substantial resources to the research, development, analytics and marketing of our games. Our development and marketing efforts are focused on both improving the experience of our existing games (frequently through new content and feature releases for our live services) and developing new games. We generate revenue primarily through the sale of in-game virtual items and advertising. For games distributed through third-party platforms, we are required to share a portion of our revenues from in-game sales with the platform providers. Due to our focus on mobile gaming, these costs are expected to remain a significant operating expense. In order to remain profitable, we need to generate sufficient bookings and revenues from our existing and new game offerings to offset our ongoing development, marketing and operating costs.

Successfully monetizing "free-to-play" games is difficult, and requires that we deliver valuable and entertaining player experiences that a sufficient number of players will pay for or we are able to otherwise sufficiently monetize our games (for example, by serving in-game advertising). The success of our games depends, in part, on unpredictable and volatile factors beyond our control including consumer preferences, competing games, new mobile platforms and the availability of other entertainment experiences. If our games do not meet consumer expectations, or if they are not brought to market in a timely and effective manner, our ability to grow revenue and our financial performance will be negatively affected.

We focus our efforts on four categories: Action Strategy, Casual, Social Casino and Invest Express. In addition to the market factors noted above, our ability to successfully develop games for mobile platforms and their ability to achieve commercial success will depend on our ability to:

- effectively market our games to existing and new players;
- achieve benefits from our player acquisition costs;
- achieve viral organic growth and gain customer interest in our games through free or more efficient channels;
- adapt to changing player preferences;
- adapt to new technologies and feature sets for mobile and other devices (for example, in 2017 we incurred expenses related to upgrading games to support Apple's new iPhoneX and releasing new features in CSR Racing 2 using Apple's ARKit platform);
- expand and enhance games after their initial release;
- attract, retain and motivate talented and experienced game designers, product managers and engineers;
- partner with mobile platforms and obtain featuring opportunities;

- continue to adapt game feature sets for an increasingly diverse set of mobile devices, including various operating systems and specifications, limited bandwidth, and varying processing power and screen sizes;
- minimize launch delays and cost overruns on the development of new games and features;
- achieve and maintain successful customer engagement and effectively monetize our games;
- maintain a quality social game experience and retain our players;
- develop games that can build upon or become franchise games;
- compete successfully against a large and growing number of existing market participants;
- accurately forecast the timing and expense of our operations, including game and feature development, marketing and customer acquisition, customer adoption, and success of bookings growth;
- minimize and quickly resolve bugs or outages; and
- acquire and successfully integrate high quality mobile game assets, personnel or companies.

These and other uncertainties make it difficult to know whether we will succeed in continuing to develop successful live service games and launch new games and features in accordance with our operating plan. If we do not succeed in doing so, our business, financial condition, results of operations or reputation will suffer.

Our industry is intensely competitive and subject to rapid changes. If consumers prefer our competitors' products or services over our own, our operating results could suffer.

Competition in the gaming industry, especially the mobile gaming segment, is intense and subject to rapid changes, including changes from evolving consumer preferences and emerging technologies. Many new games are introduced in each major industry segment (mobile, web, PC, and console), but only a relatively small number of titles account for a significant portion of total revenue in each segment. Our competitors that develop mobile and web games vary in size and include companies such as Activision Blizzard (the parent company of King Digital), Aristocrat, DoubleU, Electronic Arts (EA Mobile), Glu Mobile, Jam City, Machine Zone, Netmarble (the parent company of Kabam), Niantic, Playtika, SciGames Interactive, Supercell, Vivendi (the parent company of Gameloft) and others. In addition, online game developers and distributors who are primarily focused on specific international markets, such as Giant Interactive and Tencent in Asia, and high-profile companies with significant online presences that to date have not actively focused on social games, such as Facebook, Apple, Google, Amazon and Microsoft, may decide to develop social games. Some of these current and potential competitors have significant resources for developing or acquiring additional games, may be able to incorporate their own strong brands and assets into their games, have a more diversified set of revenue sources than we do and may be less severely affected by changes in consumer preferences, regulations or other developments that may impact our industry.

As there are relatively low barriers to entry to develop a mobile or online game, we expect new game competitors to enter the market and existing competitors to allocate more resources to develop and market competing games and applications. We also compete or will compete with a vast number of small companies and individuals who are able to create and launch games and other content for devices and platforms using relatively limited resources and with relatively limited start-up time or expertise. The proliferation of titles in these open developer channels makes it difficult for us to differentiate ourselves from other developers and to compete for players without substantially increasing our marketing expenses and development costs. As an entertainment company, we also face competition for the leisure time, attention and discretionary spending of our players from other non-gaming activities, such as social media and messaging applications, personal computer and console games, television, movies, sports and the Internet. Increasing competition could result in loss of players, increasing player acquisition and retention costs, and loss of talent, all of which could harm our business, financial condition or results of operations.

We rely on third-party platforms such as the Apple App Store, the Google Play Store and Facebook to distribute our games and collect revenue. If we are unable to maintain a good relationship with such platform providers, if their terms and conditions or pricing changed to our detriment, if we violate, or if a platform provider believes that we have violated, the terms and conditions of its platform, or if any of these platforms loses market share or falls out of favor or is unavailable for a prolonged period of time, our business will suffer.*

We derive a significant portion of our bookings from distribution of our games on the Apple App Store, the Google Play Store, and Facebook and the virtual items we sell in our games are purchased using the payment processing systems of these platform providers. Additionally, we have historically acquired a significant number of our players through Facebook. In the six months ended June 30, 2018, we derived 50% of our revenue and bookings on Apple platforms, 37% of our revenue and bookings on Google platforms and 10% of our revenue and bookings on Facebook platforms.

We are subject to the standard policies and terms of service of third-party platforms, which govern the promotion, distribution, content and operation generally of games on the platform. Each platform provider has broad discretion to change and interpret its terms of service and other policies with respect to us and other developers, and those changes may be unfavorable to us. A platform provider may also change its fee structure, add fees associated with access to and use of its platform, alter how we are able to advertise on the platform, change how the personal information of its users is made available to application developers on the platform, limit the use of personal information for advertising purposes, or restrict how players can share information with their friends on the platform or across platforms. For example, in December 2017, Apple revised its App Store Guidelines to require the disclosure of the odds of receiving certain types of virtual items from "loot boxes" (or similar mechanisms that offer a paid license to randomized virtual items) before customers purchase a license for the virtual items. We are continuing to evaluate how Apple will interpret this revision, whether Google, Facebook and other platform providers adopt similar rules, and how this rule may affect our business, operations and financial results.

In addition, third-party platforms also impose certain file size limitations, which may limit the ability of players to download some of our larger games in over-the-air updates. Aside from these over-the-air file size limitations, a larger game file size could cause players to delete our games once the file size grows beyond the capacity of their devices' storage limitations or could reduce the number of downloads of these games.

Such terms of use changes may decrease the visibility or availability of our games, limit our distribution capabilities, prevent access to our existing games, reduce the amount of bookings and revenue we may recognize from in-game purchases, increase our costs to operate on these platforms or result in the exclusion or limitation of our games on such platforms. Any such changes could adversely affect our business, financial condition or results of operations.

If we violate, or a platform provider believes we have violated, its terms of service (or if there is any change or deterioration in our relationship with these platform providers), that platform provider could limit or discontinue our access to the platform. A platform provider could also limit or discontinue our access to the platform if it establishes more favorable relationships with one or more of our competitors or it determines that we are a competitor. Any limit or discontinuation of our access to any platform could adversely affect our business, financial condition or results of operations.

We also rely on the continued popularity, customer adoption, and functionality of third-party platforms. In the past, some of these platform providers have been unavailable for short periods of time or experienced issues with their in-app purchasing functionality. If either of these events recurs on a prolonged, or even short-term, basis or other similar issues arise that impact players' ability to access our games, access social features or purchase a license to virtual items, our business, financial condition, results of operations or reputation may be harmed.

We rely on third-party hosting and cloud computing providers, like Amazon Web Services ("AWS"), to operate certain aspects of our business. A significant portion of our game traffic is hosted by a single vendor, and any failure, disruption or significant interruption in our network or hosting and cloud services could adversely impact our operations and harm our business.

Our technology infrastructure is critical to the performance of our games and to player satisfaction, as well as our corporate functions. Our games and company systems run on a complex distributed system, or what is commonly known as cloud computing. We own, operate and maintain elements of this system, but significant elements of this system are operated by third-parties that we do not control and which would require significant time and expense to replace. We expect this dependence on third-parties to continue. We have suffered interruptions in service in the past, including when releasing new software versions or bug fixes, and if any such interruption were significant and/or prolonged it could adversely affect our business, financial condition, results of operations or reputation. In particular, a significant portion, if not almost all, of our game traffic, data storage, data processing and other computing services and systems is hosted by AWS. AWS provides us with computing and storage capacity pursuant to an agreement that continues until terminated by either party. The agreement requires AWS to provide us their standard computing and storage capacity and related support in exchange for timely payment by us. We have experienced, and may in the future experience, disruptions, outages and other performance problems due to a variety of factors, including infrastructure changes, human or software errors and capacity constraints. If a particular game is unavailable when players attempt to access it or navigation through a game is slower than they expect, players may stop playing the game and may be less likely to return to the game as often, if at all.

Any failure, disruption or interference with our use of hosted cloud computing services and systems provided by third-parties, like AWS, could adversely impact our business, financial condition or results of operations. To the extent we do not effectively respond to any such interruptions, upgrade our systems as needed and continually develop our technology and network architecture to accommodate traffic, our business, financial condition or results of operations could be adversely affected. In addition, we do not maintain insurance policies covering losses relating to our systems and we do not have business interruption insurance. Furthermore, our disaster recovery systems and those of third-parties with which we do business may not function as intended or may fail to adequately protect our critical business information in the event of a significant business interruption, which may cause interruption in service of our games, security breaches or the loss of data or functionality, leading to a negative effect on our business, financial condition or results of operations.

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

Our bookings, revenue, player metrics and operating results have fluctuated in the past and could vary significantly from quarter-to-quarter and year-to-year, and may fail to match our past performance or the expectations of securities analysts or investors because of a variety of factors, some of which are outside of our control. Factors that may contribute to the variability of our operating results include the risk factors listed in these "Risk Factors" and the factors discussed in the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations — Factors Affecting Our Performance."

In particular, it is difficult to predict when bookings from one of our games will begin to decline, the decay rate for any particular game (i.e., the speed at which the popularity and player usage for a game declines) and the commercial success of our new games and features. The success of our business depends on our ability to consistently and timely launch new games and features that achieve significant popularity and have the potential to become franchise games as bookings from our older games decline. It is difficult for us to predict with certainty when we will launch a new game as games may require longer development schedules or soft launch periods to meet our quality standards and our players' expectations. If decay rates are higher than expected in a particular quarterly period and/or we experience delays in the launch of new games that we expect to offset decay rates of other games and/or new games do not monetize well, we may not meet our expectations or the expectations of securities analysts or investors for a given quarter.

In addition, we recognize revenue from the sale of our virtual items in accordance with U.S. GAAP, which is complex and based on our assumptions and historical data with respect to the sale and use of various types of virtual items. In the event of changes in our assumptions or new trends in the mix of virtual items sold, the amount of revenue that we recognize in any particular period may fluctuate significantly. In addition, changes in the policies of Facebook, Apple, Google or other third party platforms or accounting policies promulgated by the SEC and national accounting standards bodies affecting software and virtual items revenue recognition could further significantly affect the way we report revenue related to our products. Such changes could have an adverse effect on our reported revenue, net income and earnings per share under U.S. GAAP. For further information regarding our revenue recognition policy, see the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies—Revenue Recognition".

Given the rapidly evolving social game industry in which we operate, our historical operating results may not be useful in predicting our future operating results. In addition, metrics we have developed or those available from third parties regarding our industry and the performance of our games, including DAUs, MAUs, MUUs, MUPs and ABPU may not be indicative of our future financial performance.

A small number of games have generated a majority of our revenue, and we must continue to launch, innovate and enhance games that players like and attract and retain a significant number of players in order to grow our revenue and sustain our competitive position.

Historically, we have depended on a small number of games for a majority of our revenue and we expect that this dependency will continue for the foreseeable future. Bookings and revenue from many of our games may decline over time after reaching a peak of popularity and player usage. As a result, our business depends on our ability to engage with players by consistently and timely launching new games and enhancing existing games with new content, features and events. We believe that certain games have the potential to become franchises that we plan to invest in and support with new games releases (such as Words With Friends 2 and CSR Racing 2) and introduction of new features to existing games (such as new events within Zynga Poker). Constant game enhancement requires the investment of significant resources, particularly with older games, and such costs on average have increased.

It is difficult to consistently anticipate player demand on a large scale, particularly as we develop games in new categories or new markets, including international markets and mobile platforms. If we do not successfully launch games that attract and retain a significant number of players and extend the life of our existing games, our market share, brand and financial results will be harmed.

We rely on a small portion of our total players for nearly all of our revenue and if we fail to grow our player base, or if player engagement continues to decline, bookings, revenue and operating results will be harmed.*

Compared to all players who play our games in any period, only a small portion are paying players. In the second quarter of 2018, we had approximately 1.1 million average MUPs (excluding payers of Daily Celebrity Crossword, Solitaire, our Facebook Instant Games, casual games acquired in December 2017 and games acquired as part of our Gram Games acquisition), who represented approximately 2.0% of our average Monthly Unique Users. In order to sustain and grow our revenue levels, we must attract, retain and increase the number of paying players or more effectively monetize our players through advertising and other strategies. To retain players, we must devote significant resources so that the games they play retain their interest and attract them to our other games. We might not succeed in our efforts to increase the monetization rates of our users, particularly if we are unable to retain our paying players. If we fail to grow or sustain the number of our paying players, if the rates at which we attract and retain paying players declines or if the average amount our players pay declines, our business may not grow and our financial results will suffer.

Our business will suffer if we are unable to successfully acquire or integrate acquired companies into our business or otherwise manage the growth associated with multiple acquisitions.

We have acquired games, businesses, personnel and technologies in the past, and we intend to continue to evaluate and pursue acquisitions and strategic investments. For example, in the second quarter of 2018, we acquired Gram Games, a mobile game developer with studios in London and Istanbul. If we are unable to obtain the anticipated benefits from these acquisitions and strategic investments, or we encounter difficulties in integrating their operations with ours, our financial condition and results of operations could be materially harmed.

Challenges and risks from such investments and acquisitions include:

- negative effects on products and product pipeline from the changes and potential disruption that may follow the acquisition;
- diversion of our management's attention;
- declining employee morale and retention issues resulting from changes in compensation, or changes in management, reporting relationships, or future prospects;
- the need to integrate the operations, systems, technologies, products and personnel of each acquired company, the inefficiencies and lack of control that may result if such integration is delayed or not implemented, and unforeseen difficulties and expenditures that may arise in connection with integration;
- the difficulty in determining the appropriate purchase price of acquired companies may lead to the overpayment from certain acquisitions and the potential impairment of intangible assets and goodwill acquired in the acquisitions;
- the difficulty in successfully evaluating and utilizing the acquired products, technology or personnel;
- the potential incurrence of debt, contingent liabilities, amortization expenses or restructuring charges in connection with any acquisition;
- the need to implement controls, procedures and policies appropriate for a larger public company at companies that prior to acquisition may not have as robust controls, procedures and policies;
- the difficulty in accurately forecasting and accounting for the financial impact of an acquisition transaction, including accounting charges and integrating and reporting results for acquired companies that do not historically follow U.S. GAAP;
- the fact that we may be required to pay contingent consideration in excess of the initial fair value, and contingent consideration may become payable at a time when we do not have sufficient cash available to pay such consideration;
- under purchase accounting, we may be required to write off deferred revenue which may impair our ability to recognize revenue that would have otherwise been recognizable which may impact our financial performance or that of the acquired company;
- risks associated with our expansion into new international markets and doing business internationally, including those described under the risk factor caption "Our international operations are subject to increased challenges and risks";
- in the case of foreign acquisitions, the need to integrate operations across different cultures and languages and to address the particular economic, currency, political and regulatory risks associated with specific countries;
- the need to transition operations and players onto our existing or new platforms and the potential loss of, or harm to, our relationships with employees, players and other suppliers as a result of integration of new businesses;
- the ability to exert control of acquired businesses that include earn out provisions in the agreements relating to such acquisitions or the potential to fund other obligations related to a product that has not met expectations;
- our dependence on the accuracy and completeness of statements and disclosures made or actions taken by the companies we acquire or their representatives, when conducting due diligence and evaluating the results of such due diligence; and
- liability for activities of the acquired company before the acquisition, including intellectual property and other litigation claims or disputes, information security vulnerabilities, violations of laws, rules and regulations, commercial disputes, tax liabilities and other known and unknown liabilities.

The benefits of an acquisition or investment may also take considerable time to develop, and we cannot be certain that any particular acquisition or investment will produce the intended benefits, which could adversely affect our business, financial condition or results of operations. Our ability to grow through future acquisitions will depend on the availability of suitable acquisition and investment candidates at an acceptable cost, our ability to compete effectively to attract these candidates and the availability of financing to complete larger acquisitions. Acquisitions could result in potential dilutive issuances of equity securities, use of significant cash balances or incurrence of debt (and increased interest expense), contingent liabilities or amortization expenses related to intangible assets or write-offs of goodwill and/or intangible assets, which could adversely affect our results of operations and dilute the economic and voting rights of our stockholders. For more information, see Note 7 – "Goodwill and Intangible Assets, Net" in the notes to the consolidated financial statements included herein.

The value of our virtual items is highly dependent on how we manage the economies in our games. If we fail to manage our game economies properly, our business may suffer.

Paying players purchase a license to virtual items in our games because of the perceived value of these items, which is dependent on the relative ease of obtaining an equivalent good by playing our game. The perceived value of these virtual items can be impacted by various actions that we take in the games including offering discounts for virtual items, giving away virtual items in promotions or providing easier non-paid means to secure these goods. Managing game economies is difficult, and relies on our assumptions and judgement. If we fail to manage our virtual economies properly or fail to promptly and successfully respond to any such disruption, our reputation may suffer and our players may be less likely to play our games and to purchase virtual items from us in the future, which would cause our business, financial condition and results of operations to suffer.

Our revenue may be harmed by the proliferation of "cheating" programs and scam offers that seek to exploit our games and players, which may negatively affect game-playing experience and may lead players to stop playing our games.

Unrelated third parties have developed, and may continue to develop, "cheating" programs that enable players to exploit vulnerabilities in our games, play them in an automated way, collude to alter the intended game play or obtain unfair advantages over other players who do play fairly. These programs harm the experience of players who play fairly, may disrupt the virtual economies of our games and may reduce the demand for virtual items. In addition, unrelated third parties have attempted to scam our players with fake offers for virtual items or other game benefits. We devote significant resources to discover, discourage and disable these cheating and scam programs and activities. If we are unable to do so quickly, our operations may be disrupted, our reputation damaged and players may stop playing our games. These cheating programs and scam offers may lead to lost revenue from paying players, increased cost of developing technological measures to combat these programs and activities, legal claims, and increased customer service costs needed to respond to dissatisfied players.

Some of our players may make sales or purchases of virtual items used in our games through unauthorized or fraudulent third-party websites, which may reduce our revenue.

Virtual items in our games have no monetary value outside of our games. Nonetheless, some of our players may make sales and/or purchases of our virtual items, such as virtual coins for our Slots franchise games or Zynga Poker virtual poker chips, through unauthorized third-party sellers in exchange for real currency. These unauthorized or fraudulent transactions are usually arranged on third-party websites and the virtual items offered may have been obtained through unauthorized means such as exploiting vulnerabilities in our games, from scamming our players with fake offers for virtual items or other game benefits, or from credit card fraud. We do not generate any revenue from these transactions. These unauthorized purchases and sales from third-party sellers could impede our revenue and profit growth by, among other things:

- decreasing revenue from authorized transactions;
- creating downward pressure on the prices we charge players for our virtual currency and virtual items;
- increasing chargebacks from unauthorized credit card transactions;
- causing us to lose revenue from dissatisfied players who stop playing a particular game;
- increasing costs we incur to develop technological measures to curtail unauthorized transactions;
- resulting in negative publicity or harm our reputation with players and partners; and
- increasing customer support costs to respond to dissatisfied players.

To discourage unauthorized purchases and sales of our virtual items, we state in our terms of service that the buying or selling of virtual currency and virtual items from unauthorized third party sellers may result in bans from our games or legal action. We have banned players as a result of such activities. We have also filed lawsuits against third parties attempting to “sell” virtual items from our games, particularly poker chips from Zynga Poker, outside of our games. We have also employed technological measures to help detect unauthorized transactions and continue to develop additional methods and processes by which we can identify unauthorized transactions and block such transactions. However, there can be no assurance that our efforts to prevent or minimize these unauthorized or fraudulent transactions will be successful.

We are subject to laws and regulations concerning privacy, information security, data protection, consumer protection and protection of minors, and these laws and regulations are continually evolving. Our actual or perceived failure to comply with these laws and regulations could harm our business.

We receive, store and process personal information and other player data, and we enable our players to share their personal information with each other and with third parties, including on the Internet and mobile platforms. There are numerous federal, state and local laws around the world regarding privacy and the storing, sharing, use, processing, disclosure and protection of personal information and other player data on the Internet and mobile platforms, the scope of which are changing, subject to differing interpretations, and may be inconsistent between countries or conflict with other rules.

Various government and consumer agencies have called for new regulation and changes in industry practices and are continuing to review the need for greater regulation for the collection of information concerning consumer behavior on the Internet, including regulation aimed at restricting certain targeted advertising practices. For example, the European Union's General Data Protection Regulation ("GDPR"), which became effective in May 2018, creates new individual privacy rights and imposes worldwide obligations on companies processing personal data of European Union users, which has created a greater compliance burden for us and other companies with European users, and subject violators to substantial monetary penalties. There is also increased attention being given to the collection of data from minors. For instance, the Children's Online Privacy Protection Act ("COPPA") requires companies to obtain parental consent before collecting personal information from children under the age of 13. Compliance with GDPR, COPPA and similar legal requirements has required us to devote significant operational resources and incur significant expenses.

All of our games are subject to our privacy policy and our terms of service located in application storefronts, within our games and on our corporate website. We generally comply with industry standards and are subject to the terms of our privacy-related obligations to players and third parties. We strive to comply with all applicable laws, policies, legal obligations and certain industry codes of conduct relating to privacy and data protection, to the extent reasonably attainable. However, it is possible that these obligations may be interpreted and applied in a manner that is inconsistent from one jurisdiction to another and may conflict with other rules or our practices. For example, foreign laws and regulations are often more restrictive than those in the U.S. In particular, the European Union and its member states traditionally have taken broader views regarding what data types are subject to data protection, and have imposed legal obligations on companies in this regard, as is the case with GDPR. It is also possible that new laws, policies, legal obligations or industry codes of conduct may be passed, or existing laws, policies, legal obligations or industry codes of conduct may be interpreted in such a way that could prevent us from being able to offer services to citizens of a certain jurisdiction or may make it costlier or more difficult for us to do so. Any failure or perceived failure by us to comply with our privacy policy and terms of service, our privacy-related obligations to players or other third parties, or our privacy-related legal obligations, or any compromise of security that results in the unauthorized release or transfer of personally identifiable information or other player data, may result in governmental enforcement actions, litigation or public statements against us by consumer advocacy groups or others and could cause our players to lose trust in us, which could have an adverse effect on our business, financial condition or results of operations. Additionally, if third parties we work with, such as players, vendors or developers violate applicable laws or our policies, such violations may also put our players' information at risk and could in turn have an adverse effect on our business, financial condition or results of operations.

Cybersecurity attacks, including breaches, computer viruses and computer hacking could harm our business, financial condition, results of operations or reputation.

Cybersecurity attacks, including breaches, computer malware and computer hacking have become more prevalent in our industry. Any cybersecurity breach caused by hacking, which involves efforts to gain unauthorized access to information or systems, or to cause intentional malfunctions or loss or corruption of data, software, hardware or other computer equipment, or the inadvertent transmission of computer viruses could adversely affect our business, financial condition, results of operations or reputation. We have experienced and will continue to experience hacking attacks of varying degrees from time to time, including denial-of-service attacks. Because of our prominence in the social game industry, we believe we are a particularly attractive target for hackers.

In addition, we store sensitive information, including personal information about our employees, and our games involve the storage and transmission of players' personal information on equipment, networks and corporate systems run by us or managed by third-parties including Facebook, Apple, Microsoft, Amazon, and Google. We are subject to a number of laws, rules and regulations requiring us to provide notification to players, investors, regulators and other affected parties in the event of a security breach of certain personal data, or requiring the adoption of minimum information security standards that are often vaguely defined and difficult to practically implement. The costs of compliance with these laws have increased and may increase in the future. Our corporate systems, third-party systems and security measures may be breached due to the actions of outside parties, employee error, malfeasance, a combination of these, or otherwise, and, as a result, an unauthorized party may obtain access to our data, our employees' data, our players' data or any third party data we may possess. Any such cybersecurity breach could require us to comply with various breach notification laws and may expose us to litigation, remediation and investigation costs, increased costs for security measures, loss of revenue, damage to our reputation and potential liability.

Any restructuring actions and cost reduction initiatives that we undertake may not deliver the expected results and these actions may adversely affect our business.

We have implemented a number of restructurings during the last several years in which we implemented certain restructuring actions and cost reduction initiatives to streamline operations and improve cost efficiencies to better align our operating expenses with our revenue, including reducing our headcount, rationalizing our product pipeline, reducing marketing and technology expenditures and consolidating and closing certain facilities. We plan to continue to manage costs to better and more efficiently manage our business. Our restructuring plans and other such efforts could result in disruptions to our operations and adversely affect our business, financial condition or results of operations. For more information, see Note 10 – "Restructuring" in the notes to the consolidated financial statements included herein.

We actively monitor our costs, however, if we do not fully realize or maintain the anticipated benefits of any restructuring actions and cost reduction initiatives, our business, financial condition or results of operations could be adversely affected, and additional restructuring initiatives may be necessary. In addition, we cannot be sure that the cost reduction initiatives will be as successful in reducing our overall expenses as expected or that additional costs will not offset any such reductions. If our operating costs are higher than we expect or if we do not maintain adequate control of our costs and expenses, our operating results will suffer.

In addition, our cost-cutting measures could negatively impact our business, financial condition or results of operations including but not limited to, delaying the introduction of new games, features or events, interrupting live services, impairing our control environment, delaying introduction of new technology, impacting our ability to react nimbly to game or technology issues, or impacting employee retention and morale.

If we are able to develop new games and features that achieve success, it is possible that these games and features could divert players of our other games without growing our overall user base, which could harm operating results.

Although it is important to our future success that we develop new games and features that are popular with players, it is possible that new games and features may reduce the amount of time players spend with our other games. In particular, we plan to continue leveraging our existing games to cross-promote new games and features, which may encourage players of existing games to divert some of their playing time and discretionary spending away from our existing games. If new games and game features do not grow our player base, increase the overall amount of time our players spend with our games, or generate sufficient new bookings to offset any declines from our other games, our bookings and revenue could be adversely affected.

We derive a significant portion of our revenues from advertisements and offers that are incorporated into our free-to-play games through relationships with third parties. If we are unable to continue to compete for these advertisements and offers, or if any events occur that negatively impact our relationships with advertisers, our advertising revenues and operating results would be negatively impacted.

We derive a significant portion of our revenues though advertisements and offers we serve to players. We need to maintain good relationships with advertisers to provide us with a sufficient inventory of advertisements and offers. Online advertising, including through mobile games and other mobile applications, is an intensely competitive industry. Many large companies, such as Amazon, Facebook and Google, invest significantly in data analytics to make their websites and platforms more attractive to advertisers. In order for our advertising business to continue to succeed, we need to continue to demonstrate the reach of our player network and success of our advertising partners. If our relationship with any advertising partners terminates for any reason, or if the commercial terms of our relationships are changed or do not continue to be renewed on favorable terms, we would need to qualify new advertising partners, which could negatively impact our revenues, at least in the short term.

In addition, internet-connected devices and operating systems controlled by third parties increasingly contain features that allow device users to disable functionality that allows for the delivery of advertising on their devices. Device and browser manufacturers may include or expand these features as part of their standard device specifications. For example, when Apple announced that UDID, a standard device identifier used in some applications, was being superseded and would no longer be supported, application developers were required to update their apps to utilize alternative device identifiers such as universally unique identifier, or, more recently, identifier-for-advertising, which simplify the process for Apple users to opt out of behavioral targeting. If users elect to utilize the opt-out mechanisms in greater numbers, our ability to deliver effective advertising campaigns on behalf of our advertisers would suffer, which could cause our business, financial condition, or results of operations to suffer. Finally, the revenues that we derive from advertisements and offers is subject to seasonality, as companies' advertising budgets are generally highest during the fourth quarter and decline significantly in the first quarter of the following year, which negatively impacts our revenues in the first quarter.

We have a history of net losses and our revenue, bookings and operating margins may decline. We also may incur substantial net losses in the future and may not achieve or sustain profitability.*

The industry in which we operate is highly competitive and rapidly changing, and relies heavily on successful new product launches and continually introducing compelling content, products and services. As such, if we fail to deliver such content, products and services, do not execute our strategy successfully or if our new content launches are delayed, our revenue, bookings and audience numbers may decline, and our operating results will suffer. As of June 30, 2018, we had an accumulated deficit of $1.8 billion.

In addition, our operating margin may experience downward pressure as a result of increasing competition and the other risks discussed in this report. We expect to continue to expend substantial financial and other resources on game development, our technology stack, game engines, game technology and tools, the expansion of our network, international expansion and marketing. Our operating costs will increase and our operating margins may decline if we do not effectively manage costs, launch new products on schedule that monetize successfully and enhance our franchise games so that these games continue to monetize successfully. In addition, weak economic conditions or other factors could cause our business to further contract, requiring us to implement significant additional cost cutting measures, including a decrease in research and development and sales and marketing, which could harm our long-term prospects.

If our revenues do not increase to offset any additional expenses, if we fail to manage or experience unexpected increases in operating expenses or if we are required to take additional charges related to impairments or restructurings, our financial results and results of operations may suffer.

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

The numbers of our DAUs, MAUs, MUUs, MUPs, and ABPU are calculated using metrics tracked by our internal analytics systems based on tracking activity of user accounts. The analytics systems and the resulting data have not been independently verified. While these numbers are based on what we believe to be reasonable calculations for the applicable period of measurement, there are inherent challenges in measuring usage and user engagement across our user base and factors relating to user activity and systems may impact these numbers. The calculation of these metrics and examples of how user activity and our systems may impact the calculation of the metrics is described in detail under the heading titled "Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Measures and Metrics."

Our accuracy in calculating these metrics is further challenged by our focus on mobile gaming. As described under the heading titled "Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Measures and Metrics," we rely on the accuracy and transparency of data provided by individuals and reported by third parties to calculate our metrics and eliminate duplication of data. For purposes of calculating MUUs and MUPs, for certain periods, we are unable to distinguish whether players of certain games are also players of our other games. As a result, we exclude players of these games from our calculation of MUUs and MUPs for those periods to avoid potential double counting.

Our advertisers and investors rely on our key metrics as a representation of our performance. We regularly review and may adjust our processes for calculating our internal metrics to improve their accuracy. If we determine that we can no longer calculate any of our key metrics with a sufficient degree of accuracy, and we cannot find an adequate replacement for the metric, our business, financial condition or results of operations may be harmed. In addition, if advertisers, platform partners or investors do not perceive our user metrics to be accurate representations of our user base or user engagement, or if we discover material inaccuracies in our user metrics, our reputation may be harmed and advertisers and platform partners may be less willing to allocate their budgets or resources to our products and services, which could negatively affect our business, financial condition or results of operations.

Our business and growth may suffer if we fail to attract, retain and motivate key personnel.*

Our ability to compete and grow depends in large part on the efforts and talents of our employees and executives. Our success depends in a large part upon the continued service of our senior management team. We have seen significant changes in our management team in recent years, including the appointment of Frank Gibeau as our Chief Executive Officer, the appointment of Mark Pincus as our non-Executive Chairman, and the appointments of our Chief Financial Officer, Chief Operating Officer, President of Publishing, Chief People Officer and Chief Legal Officer. Mr. Pincus and Mr. Gibeau are both critical to our vision, strategic direction, culture, products and technology, and the continued retention of our entire senior management team is important to the success of our operating plan. We do not have employment agreements, other than offer letters, with our senior management team, and we do not maintain key-man insurance for members of our senior management team. The loss of any member of our senior management team could cause disruption and harm our business, financial condition, results of operations or reputation.

In addition, our ability to execute our strategy depends on our continued ability to identify, hire, develop, motivate and retain highly skilled employees, particularly in the competitive fields of game design, product management and engineering. These employees are in high demand, and we devote significant resources to identifying, recruiting, hiring, training, successfully integrating and retaining them. We have continued to experience significant turnover in our headcount, which has placed and will continue to place significant demands on our management and our operational, financial and technological infrastructure. As of June 30, 2018, approximately 32% of our employees had been with us for less than one year and approximately 46% for less than two years.

We believe that two critical components of our success and our ability to retain our best people are our culture and our competitive compensation practices. As we operate as a public company, we may find it difficult to maintain our entrepreneurial, execution-focused culture. In addition, recent volatility in our operating results and the trading price of our Class A common stock may cause our employee base to be more vulnerable to be targeted for recruitment by competitors. Competition for highly skilled employees is intense, particularly in the San Francisco Bay Area, where our headquarters is located. If we are unable to identify, hire and retain our senior management team and our key employees, our business, financial condition or results of operations could be harmed. Moreover, if our team fails to work together effectively to execute our plans and strategies on a timely basis, our business, financial condition or results of operations could be harmed.

We have historically hired a number of key personnel through acquisitions, and as competition with other game companies for attractive target companies with a skilled employee base persists and increases, we may incur significant expenses and difficulty in continuing this practice. In addition, volatility in our operating results and the trading price of our Class A common stock may negatively impact our perceived reputation and make it more difficult and more expensive to successfully retain employees through acquisitions. The loss of talented employees with experience in the assets we acquire could result in significant disruptions to our business and the integration of acquired assets and businesses. If we do not succeed in recruiting, retaining, and motivating these key employees, we may not achieve the anticipated results of acquisitions.

Our core values of focusing on our players and acting for the long-term may conflict with the short-term expectations of analysts.

We believe surprising and delighting our players is essential to our success and serves the best, long-term interests of Zynga and our stockholders. Therefore, we have made in the past and we may make in the future, significant investments or changes in strategy that we think will benefit us in the long-term, even if our decision has the potential to negatively impact our operating results in the short term. For example, we delayed the launches of Dawn of Titans and CSR Racing 2 from 2015 to 2016. Although launching Dawn of Titans or CSR Racing 2 in 2015 may have offered short-term bookings, we determined that both games needed more time in soft launch to achieve their full potential. In addition, our decisions may not result in the long-term benefits that we expect, in which case the success of our games, business, financial condition or results of operations could be harmed.

If the use of mobile devices as game platforms and the proliferation of mobile devices generally do not increase, our business could be adversely affected.

The number of people using mobile Internet-enabled devices has increased dramatically over time and we expect that this trend will continue. However, the mobile market, particularly the market for mobile games, may not grow in the way we anticipate. Our future success is substantially dependent upon the continued growth of the market for mobile games. In addition, we do not currently offer our games on all mobile devices. If the mobile devices on which our games are available decline in popularity or become obsolete faster than anticipated, we could experience a decline in bookings and revenue and may not achieve the anticipated return on our development efforts. Any such declines in the growth of the mobile market or in the use of mobile devices for games could harm our business, financial condition or results of operations.

If we do not successfully invest in, establish and maintain awareness of our brand and games, if we incur excessive expenses promoting and maintaining our brand, or our games or if our games contain defects or objectionable content, our business, financial condition, results of operations or reputation could be harmed.

We believe that establishing and maintaining our brand is critical to maintaining and creating favorable relationships with players, platform providers, advertisers and content licensors, as well as competing for key talent. Increasing awareness of our brand and recognition of our games is particularly important in connection with our strategic focus on developing games based on our own intellectual property and successfully cross-promoting our games. In addition, globalizing and extending our brand and recognition of our games requires significant investment and extensive management time to execute successfully. Although we make significant sales and marketing expenditures in connection with the launch of our games, these efforts may not succeed in increasing awareness of our brand or the new games. If we fail to increase and maintain brand awareness and consumer recognition of our games, our potential revenues could be limited, our costs could increase and our business, financial condition, results of operations or reputation could suffer.

In addition, if a game contains objectionable content or the messaging functionality of our games is abused, we could experience damage to our reputation and brand. Despite reasonable precautions, some consumers may be offended by certain of our game content, the third-party advertisements displayed in certain of our games, or by treatment of other users. If consumers believe that a game we published or third-party advertisement displayed in a game contains objectionable content, it could harm our brand and consumers could refuse to play it and could pressure the platform providers to remove the game from their platforms. For example, we rely on third-party advertising partners to display ads within our games, we have experienced (and may experience in the future) instances where offensive or objectionable content has been displayed in our games through our advertising partners. While this may violate the terms of our agreements with these advertising partners, our reputation and player experience may suffer. Furthermore, steps that we may take in response to such instances, such as temporarily or permanently shutting off access of such advertising partner to our network, may negatively impact our revenue in such period.

Similarly, our games may contain errors, bugs, flaws, corrupted data, defects and other vulnerabilities, some of which may only become apparent after their launch, particularly as we launch new games and rapidly release new features to existing games under tight time constraints. Any such errors, flaws, defects and vulnerabilities may be exploited by cheating programs and other forms of misappropriation, disrupt our operations, adversely affect the game experience of our players, harm our reputation, cause our players to stop playing our games, divert our resources and delay market acceptance of our games, any of which could result in legal liability to us or harm our business, financial condition or results of operations.

Our web-based games rely on Adobe Flash, and our business and operating results could be harmed if web browsers cease to support Adobe Flash and we cannot find substitute software for our web-based games.

Our web-based games currently rely on Adobe Flash, a multimedia and software platform used to show items such as videos, graphics, games and animations on websites. In July 2017, Adobe announced that it will stop updating and distributing the Adobe Flash technology at the end of 2020. Many providers of web-browsers have also communicated roadmaps for phasing out and removing Adobe Flash from their respective web-browsers by 2020. We are continuing to evaluate solutions to provide uninterrupted access to our web games. If we are unable to implement these solutions in time, or measures that we take disrupt our game experience, these games may become unavailable or their audiences may further decline, which would harm our business, financial condition and results of operations.

Failure to protect or enforce our intellectual property rights or the costs involved in such enforcement could harm our business, financial condition or results of operations.

We regard the protection of our trade secrets, copyrights, trademarks, service marks, trade dress, domain names, patents, and other product 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 and business practices. We enter into confidentiality and invention assignment agreements with our employees and contractors and confidentiality agreements with parties with whom we conduct business in order to limit access to, and disclosure and use of, our proprietary information. However, these contractual arrangements and business practices may not prevent the misappropriation of our proprietary information or deter independent development of similar technologies by others.

We pursue the registration of our copyrights, trademarks, service marks, domain names, and patents in the U.S. and in certain locations outside the U.S. This process can be expensive and time-consuming, may not always be successful depending on local laws or other circumstances, and we also may choose not to pursue registrations in every location depending on the nature of the project to which the intellectual property rights pertain. We may, over time, increase our investments in protecting our creative works.

Litigation may be necessary to enforce our intellectual property rights, protect our trade secrets or determine the validity and scope of proprietary rights claimed by others. For example, we have brought actions to protect our “Zynga Poker,” “Ville,” and “With Friends” franchises against third-party uses of those intellectual property assets and brands. Any litigation of this nature, regardless of outcome or merit, could result in substantial costs, adverse publicity, and diversion of management and technical resources, any of which could adversely affect our business, financial condition or results of operations. If we fail to maintain, protect and enhance our intellectual property rights, our business, financial condition or results of operations may be harmed.

Our ability to acquire and maintain licenses to intellectual property may affect our revenue and profitability. Competition for these licenses may make them more expensive and increase our costs.

While most of the intellectual property we use in our games is created by us, we also acquire rights to third-party intellectual property. For example, we use licensed intellectual property as creative assets in games such as Willy Wonka and the Chocolate Factory Slots, Hit It Rich! Slots, Spin it Rich! Slots, Wizard of Oz: Magic Match, Wizard of Oz Slots and Black Diamond Casino.

Proprietary licenses typically limit our use of intellectual property to specific uses and for specific time periods, and include other contractual obligations with which we must comply. Competition for these licenses is intense, and often results in increased advances, minimum payment guarantees and royalties that we must pay to the licensor. If we are unable to obtain and remain in compliance with the terms of these licenses or obtain additional licenses on reasonable economic terms, our revenue and profitability may be adversely impacted.

In addition, many of our games are built on propriety source code of third parties, such as Unity. If we are unable to renew licenses to proprietary source code underlying our games, or the terms and conditions of these licenses change at the time of renewal our business, financial condition or results of operations could be negatively impacted. We rely on third parties, including Unity, to maintain versions of their proprietary engines that allow us to ship our games on multiple platforms. If a third party from whom we license source code discontinues support for one or more of these platforms, our business, financial condition or results of operations could be negatively impacted.

We are, and may in the future be, subject to intellectual property disputes, which are costly to defend and could require us to pay significant damages and could limit our ability to use certain technologies in the future.

From time to time, we have faced, and we may face in the future, allegations that we have infringed the trademarks, copyrights, patents and other intellectual property rights of third parties, including from our competitors, non-practicing entities and former employers of our personnel. Intellectual property litigation may be protracted and expensive, and the results are difficult to predict. As the result of any court judgment or settlement, we may be obligated to cancel the launch of a new game, stop offering a game or certain features of a game in a particular geographic region or worldwide, pay royalties or significant settlement costs, purchase licenses or modify our games and features, or develop substitutes.

In addition, we use open source software in our games and expect to continue to use open source software in the future. From time to time, we may face claims from companies that incorporate open source software into their products, claiming ownership of, or demanding release of, the source code, the open source software and/or derivative works that were developed using such software, or otherwise seeking to enforce the terms of the applicable open source license. These claims could also result in litigation, require us to purchase a costly license or require us to devote additional research and development resources to change our games, any of which would have a negative effect on our business, financial condition or results of operations.

We are involved in legal proceedings that may result in adverse outcomes.

We are involved in claims, suits, government investigations, and proceedings arising in the ordinary course of our business, including actions with respect to intellectual property claims, privacy, data protection or law enforcement matters, tax matters, labor and employment claims, commercial and acquisition-related claims, as well as stockholder derivative actions, class action lawsuits, and other matters. Such claims, suits, government investigations, and proceedings are inherently uncertain and their results cannot be predicted with certainty. Regardless of their outcomes, such legal proceedings can have an adverse impact on us because of legal costs, diversion of management and other personnel, and other factors. In addition, it is possible that a resolution of one or more such proceedings could result in liability, penalties, or sanctions, as well as judgments, consent decrees, or orders preventing us from offering certain features, functionalities, products, or services, or requiring a change in our business practices, products or technologies, which could in the future materially and adversely affect our business, financial condition or results of operations. See the section titled “Legal Matters” included in Note 15 – “Commitments and Contingencies” in the notes to the consolidated financial statements included herein.

Our business is subject to a variety of U.S. and foreign laws, many of which are unsettled and still developing and which could subject us to claims or otherwise harm our business.*

We are subject to a variety of laws in the U.S. and abroad that affect our business, including state and federal laws regarding consumer protection, electronic marketing, protection of minors, data protection, competition, taxation, intellectual property, export and national security, that are continuously evolving and developing. The scope and interpretation of the laws that are or may be applicable to us are often uncertain and may be conflicting, particularly laws outside the U.S. There is a risk that these laws may be interpreted in a manner that is not consistent with our current practices, and could have an adverse effect on our business. It is also likely that as our business grows and evolves and our games are played in a greater number of countries, we will become subject to laws and regulations in additional jurisdictions or other jurisdictions may claim that we are required to comply with their laws and regulations.

We are potentially subject to a number of foreign and domestic laws and regulations that affect the offering of certain types of content, such as that which depicts violence, many of which are ambiguous, still evolving and could be interpreted in ways that could harm our business or expose us to liability. In addition, there are ongoing academic, political and regulatory discussions in the U.S., Europe, Australia and other jurisdictions regarding whether social casino applications should be subject to a higher level or different type of regulation than other social game applications to protect consumers, in particular minors and persons susceptible to addiction to social casino games, and, if so, what this regulation should include. For example, a court has recently determined that a class-action plaintiff was able to state a claim that an online social casino game operated by Big Fish Games, Inc. violated a specific anti-gambling law in Washington State. We disagree with this ruling and are continuing to monitor this case. If new social casino regulations are imposed, or other regulations are interpreted to apply to our social casino games, certain of (or all of) our casino-themed games may become subject to the rules and regulations and expose us to civil and criminal penalties if we do not comply. Heightened regulation could increase the cost of running our social casino games, make our games more difficult to access, decrease our user base or otherwise harm our business, financial condition or results of operations.

It is difficult to predict how existing laws will be applied to our business or the new laws to which we may become subject. If we are not able to comply with these laws or regulations or if we become liable under these laws or regulations, we could be directly harmed, and we may be forced to implement new measures to reduce our exposure to this liability. This may require us to expend substantial resources or to modify our games, which would harm our business, financial condition and results of operations. In addition, the increased attention focused upon liability issues as a result of lawsuits and legislative proposals could harm our reputation or otherwise impact the growth of our business. Any costs incurred as a result of this potential liability could harm our business, financial condition or results of operations.

It is possible that a number of laws and regulations may be adopted or construed to apply to us in the U.S. and elsewhere that could restrict the online and mobile industries, including player privacy, advertising, taxation, content suitability, copyright, distribution and antitrust. Furthermore, the growth and development of electronic commerce and virtual items may prompt calls for more stringent consumer protection laws that may impose additional burdens on companies such as ours conducting business through the Internet and mobile devices. We anticipate that scrutiny and regulation of our industry will increase and we will be required to devote legal and other resources to addressing such regulation. For example, existing laws or new laws regarding the marketing of in-app purchases, labeling of free-to-play games, regulation of currency and banking institutions unclaimed property and money transmission may be interpreted to cover our games and the virtual currency, goods or payments that we receive. If that were to occur we may be required to seek licenses, authorizations or approvals from relevant regulators, the granting of which may be dependent on us meeting certain capital and other requirements and we may be subject to additional regulation and oversight, all of which could significantly increase our operating costs. Changes in current laws or regulations or the imposition of new laws and regulations in the U.S. or elsewhere regarding these activities may lessen the growth of social game services and impair our business, financial condition or results of operations.

Our international operations are subject to increased challenges and risks.

Continuing to expand our business to attract players in countries other than the U.S. is a critical element of our business strategy. An important part of targeting international markets is developing offerings that are localized and customized for the players in those markets. We expect to continue to expand our international operations in the future by opening new international studio locations and expanding our offerings in new languages. Our ability to expand our business and to attract talented employees and players in an increasing number of international markets will require considerable management attention and resources and is subject to the particular challenges of supporting a rapidly growing business in an environment of multiple languages, cultures, customs, legal systems, alternative dispute systems, regulatory systems and commercial infrastructures. We have experienced difficulties in the past and have not been successful in all the countries we have entered. Expanding our international focus may subject us to risks that we have not faced before or increase risks that we currently face, including risks associated with:

- inability to offer certain games in certain foreign countries;
- recruiting and retaining talented and capable management and employees in foreign countries;
- challenges caused by distance, language and cultural differences;
-

developing and customizing games and other offerings that appeal to the tastes and preferences of players in international markets;

- competition from local game makers with intellectual property rights and significant market share in those markets and with a better understanding of player preferences;
- utilizing, protecting, defending and enforcing our intellectual property rights;
- negotiating agreements with local distribution platforms that are sufficiently economically beneficial to us and protective of our rights;
- the inability to extend proprietary rights in our brand, content or technology into new jurisdictions;
- implementing alternative payment methods for virtual items in a manner that complies with local laws and practices and protects us from fraud;

- compliance with applicable foreign laws and regulations, including privacy laws and laws relating to content and consumer protection (for example, the United Kingdom's Office of Fair Trading's 2014 principles relating to in-app purchases in free-to-play games that are directed toward children 16 and under);
- compliance with anti-bribery laws, including the Foreign Corrupt Practices Act;
- credit risk and higher levels of payment fraud;
- currency exchange rate fluctuations;
- protectionist laws and business practices that favor local businesses in some countries;
- double taxation of our international earnings and potentially adverse tax consequences due to changes in the tax laws of the U.S. or the foreign jurisdictions in which we operate;
- political, economic and social instability;
- higher costs associated with doing business internationally;
- export or import regulations; and
- trade and tariff restrictions.

If we are unable to manage the complexity of our global operations successfully, our business, financial condition and operating results could be adversely affected. Additionally, our ability to successfully gain market acceptance in any particular market is uncertain, and the distraction of our senior management team could harm our business, financial condition or results of operations.

The vote by the United Kingdom to exit from the European Union could harm our business, financial condition or results of operations.*

On March 29, 2017, the United Kingdom triggered Article 50 of the Treaty on European Union by notifying the European Council of its intention to withdraw from the European Union (commonly referred to as the "Brexit"). Negotiations have commenced to determine the future terms of the United Kingdom's relationship with the European Union, including the terms of trade between the U.K. and the European Union. The effects of Brexit will depend on any agreements the United Kingdom makes to retain access to European Union markets either during a transitional period or more permanently. Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the United Kingdom determines which European Union laws to replace or replicate.

The announcement of Brexit caused (and the actual exit of the United Kingdom from the European Union is expected to cause future) significant volatility in global stock markets, which could cause our stock price to be subject to wide fluctuations, and significant fluctuations in foreign currency exchange rates, which will affect our financial results as we report in U.S. dollars and may affect our ability to attract and retain employees in the United Kingdom. The announcement of Brexit also created (and the actual exit of the United Kingdom from the European Union may create future) global economic uncertainty, which may cause our players to reduce the amount of money they spend on our games. The actual exit of the United Kingdom from the European Union could cause disruptions to and create uncertainty surrounding our business, including affecting our NaturalMotion and Gram Games operations and relationships with existing and future players, suppliers and employees. Any of these effects of Brexit, and others we cannot anticipate, could harm our business, financial condition or results of operations.

Companies and governmental agencies may restrict access to Facebook, our website, mobile applications or the Internet generally, which could lead to the loss or slower growth of our player base.

Our players generally need to access the Internet and in particular platforms such as Facebook, Apple, Google and our website to play our games. Companies and governmental agencies could block access to Facebook, our website, mobile applications or the Internet generally for a number of reasons such as security or confidentiality concerns or regulatory reasons, or they may adopt policies that prohibit employees from accessing Facebook, Apple, Google and our website or other social platforms. If companies or governmental entities block or limit such or otherwise adopt policies restricting players from playing our games, our business could be negatively impacted and could lead to the loss or slower growth of our player base.

Changes in tax laws or tax rulings could materially affect our effective tax rates, financial position and results of operations.*

The tax regimes we are subject to or operate under are unsettled and may be subject to significant change. Changes in tax laws or tax rulings, or changes in interpretations of existing laws, could cause us to be subject to additional income-based taxes and non-income taxes (such as payroll, sales, use, value-added, net worth, property, and goods and services taxes), which in turn could materially affect our financial position and results of operations. In December 2017, the U.S. federal government enacted the Tax Cuts and Jobs Act ("2017 Tax Act"). The 2017 Tax Act significantly changed the existing U.S. corporate income tax laws by, among other things, lowering the corporate tax rate, implementing a territorial tax system, and imposing a one-time deemed repatriation toll tax on cumulative undistributed foreign earnings. The 2017 Tax Act will have a meaningful impact on our provision for income taxes. Due to the timing of the enactment and the complexity involved in applying the provisions of the 2017 Tax Act, we made reasonable estimates of the effects and recorded provisional amounts in our financial statements for the year ended December 31, 2017. The U.S. Treasury Department, the Internal Revenue Service (IRS), and other standard-setting bodies may issue guidance on how provisions of the 2017 Tax Act will be applied or otherwise administered that is different from our interpretation. As we collect and prepare necessary data, and interpret the 2017 Tax Act and any additional guidance issued by the IRS or other standard-setting bodies, we may make adjustments to the provisional amounts that could materially affect our financial position and results of operations as well as our effective tax rate in the period in which the adjustments are made. For the quarter ending March 31, 2018, no adjustments were made to the provisional amounts recorded in our financial statements for the year ended December 31, 2017. In addition, many countries in the European Union, as well as a number of other countries and organizations such as the Organization for Economic Cooperation and Development, have recently proposed or recommended changes to existing tax laws or have enacted new laws that could impact our tax obligations. Any significant changes to our future effective tax rate, including final resolution of provisional amounts relating to effects of the 2017 Tax Act, may result in a material adverse effect on our business, financial condition, results of operations, or cash flows. For more information, see Note 8 – “Income Taxes” in the notes to the consolidated financial statements included herein.

We may have exposure to greater than anticipated tax liabilities.

Our income tax obligations are based in part on our corporate operating structure and intercompany arrangements, including the manner in which we develop, value, manage, and use our intellectual property and the valuation of our intercompany transactions. The tax laws applicable to our business, including the laws of the U.S. and other jurisdictions, are subject to interpretation and certain jurisdictions are aggressively interpreting their laws in new ways in an effort to raise additional tax revenue. Our existing corporate structure and intercompany arrangements have been implemented in a manner we believe is in compliance with current prevailing tax laws. However, the taxing authorities of the jurisdictions in which we operate may challenge our methodologies for valuing developed technology or intercompany arrangements, which could impact our worldwide effective tax rate and harm our financial position and results of operations.

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

We intend to continue to make significant investments to support our business growth and may require additional funds to respond to business challenges, including the need to develop new games and features or enhance our existing games, improve our operating infrastructure or acquire complementary businesses, personnel and technologies. Accordingly, 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 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 that we secure in the future could involve 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. 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, financial condition or results of operations may be harmed.

We own our corporate headquarters located in San Francisco, California. The occurrence of an earthquake or other natural disaster at or near any of our facilities could cause damage to our facilities and equipment, which could require us to curtail or cease operations.

Our principal offices are located in the San Francisco Bay Area, an area known for earthquakes, and are thus vulnerable to damage. We own our corporate headquarters and lease certain office space to commercial tenants. All of our facilities are also vulnerable to damage from natural or manmade disasters, including power loss, fire, explosions, floods, communications failures, terrorist attacks and similar events. If any disaster were to occur, our ability to operate our business at our facilities could be impaired, we could incur significant losses, recovery from which may require substantial time and expense.

Risks Related to Our Class A Common Stock

Our share price has been and will likely continue to be volatile.*

The trading price of our Class A common stock has been, and is likely to continue to be, highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. Between June 30, 2017 and June 30, 2018, the trading price of our Class A common stock ranged from a low of $3.20 per share to a high of $4.57 per share. In addition to the factors discussed in these "Risk Factors" and elsewhere in this filing, factors that may cause volatility in our share price include:

- changes in projected operational and financial results;
- issuance of new or updated research or reports by securities analysts;
- market rumors or press reports;
- announcements related to our share repurchase program;
- our announcement of significant transactions;
- the use by investors or analysts of third-party data (such as AppData, AppAnnie, comScore, and SensorTower) regarding our business and operating metrics which may not reflect our actual performance or financial results;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- the activities, public announcements and financial performance of our commercial partners, such as Facebook, Apple and Google;
- fluctuations in the trading volume of our shares, or the size of our public float relative to the total number of shares of our Class A common stock that are issued and outstanding;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares; and
- general economic and market conditions.

Furthermore, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to 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, interest rate changes or international currency fluctuations, may negatively impact the market price of our Class A common stock. In the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We have been the target of this type of litigation as described in the section titled "Legal Matters" included in Note 15 —"Commitments and Contingencies" in the notes to the consolidated financial statements included herein. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could harm our business.

In addition, in November 2016, the 2016 Share Repurchase Program was authorized for up to $200 million of our outstanding Class A common stock. In the second quarter of 2018, we completed all purchases under the 2016 Share Repurchase Program. In May 2018, we announced that our Board of Directors authorized a share repurchase program allowing us to repurchase up to an additional $200.0 million of our outstanding shares of Class A common stock ("2018 Share Repurchase Program"). The timing and amount of any stock repurchases will be determined based on market conditions, share price and other factors. The 2018 Share Repurchase Program does not require us to repurchase any specific number of shares of our Class A common stock, and may be modified, suspended or terminated at any time without notice. The 2018 Share Repurchase Program will be funded from existing cash on hand or other sources of financing as the Company may determine to be appropriate. Share repurchases under these authorizations may be made through a variety of methods, which may include open market purchases, privately negotiated transactions, block trades, accelerated share repurchase transactions, purchases through 10b5-1 plans or by any combination of such methods. Repurchases of our Class A common stock in the open market could result in increased volatility in our stock price. There is no guarantee that we will do any share repurchases under the 2018 Share Repurchase Program or otherwise in the future.

Certain provisions in our charter documents and under Delaware law could limit attempts by our stockholders to replace or remove our Board of Directors or current management and limit the market price of our Class A common stock.*

Provisions in our certificate of incorporation and bylaws may have the effect of delaying or preventing changes in our Board of Directors or management. Our certificate of incorporation and bylaws include provisions that:

- establish an advance notice procedure for stockholder proposals to be brought before an annual meeting, including proposed nominations of persons for election to our Board of Directors;
- prohibit cumulative voting in the election of directors;
- authorize “blank check” preferred stock that our board of directors could issue; and
- limit the ability of stockholders to call a special stockholder meeting and to act by written consent.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our Board of Directors, which is responsible for appointing the members of our management. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any “interested” stockholder for a period of three years following the date on which the stockholder became an “interested” stockholder.

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

Third parties, such as AppData, AppAnnie, comScore, and SensorTower publish daily data about us and other social game companies with respect to DAUs and MAUs, monthly revenue, time spent per user and other information concerning social game usage. These metrics can be volatile, particularly for specific games, and in many cases do not accurately reflect the actual levels of usage of our games across all platforms and may not correlate to our bookings or revenue from the sale of virtual items. There is a possibility that third parties could change their methodologies for calculating these metrics in the future. To the extent that securities analysts or investors base their views of our business or prospects on such third-party data, the price of our Class A common stock may be volatile and may not reflect the performance of our business.

If securities or industry analysts do not publish research about our business, or publish negative reports about our business, our share price and trading volume could decline.

The trading market for our Class A common stock, to some extent, depends on the research and reports that securities or industry analysts publish about our business. We do not have any control over these analysts. If one or more of the analysts who cover us downgrade our shares or lower their opinion of our shares, our share price would likely decline. If one or more of these analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our share price or trading volume to decline.

If we are unable to implement and maintain effective internal control over financial reporting in the future, the accuracy and timeliness of our financial reporting may be adversely affected.

If we are unable to maintain adequate internal controls for financial reporting in the future, or if our auditors are unable to express an opinion as to the effectiveness of our internal controls as required pursuant to the Sarbanes-Oxley Act, investor confidence in the accuracy of our financial reports may be impacted or the market price of our Class A common stock could be negatively impacted.

The requirements of being a public company may strain our resources, divert management’s attention and affect our ability to attract and retain qualified Board members.

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the Sarbanes-Oxley Act, the Dodd-Frank Act, the listing requirements of the NASDAQ Global Select Market and other applicable securities rules and regulations. Compliance with these rules and regulations has increased and will continue to increase our legal and financial compliance costs, make some activities more difficult, time-consuming or costly and increase demand on our systems and resources. The Exchange Act requires, among other things, that we file annual, quarterly and current reports with respect to our business and operating results.

As a result of disclosure of information in our public filings with the SEC as required of a public company, our business and financial condition have become more visible, which we believe may result in threatened or actual litigation, including by competitors and other third parties. If such claims are successful, our business, financial condition or results of operations could be harmed, and even if the claims do not result in litigation or are resolved in our favor, these claims, and the time and resources necessary to resolve them, could divert the resources of our management and harm our business, financial condition or results of operations.

We have no plans to pay dividends for the foreseeable future.

We have never declared or paid any cash dividends on our common stock and do not have any plans to pay cash dividends in the foreseeable future. Any determination to pay dividends in the future will be at the discretion of our Board of Directors. 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.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND ISSUER PURCHASES OF EQUITY SECURITIES

Unregistered Sales of Equity Securities

None

Issuer Purchases of Equity Securities

Stock repurchases during the second quarter of 2018, which were all made pursuant to the 2016 Share Repurchase Program, were as follows:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Programs[1]	Maximum Dollar Value That May Yet Be Purchased Under the Program[1]
April 1 - April 30, 2018	6,901,537	$ 3.51	6,901,537	$ —
May 1 - May 31, 2018	—	$ —	—	$ —
June 1 - June 30, 2018	—	$ —	—	$ —
Total	6,901,537	$ 3.51	6,901,537	

(1) In November 2016, we announced that our Board of Directors authorized the 2016 Share Repurchase Program, which authorizes us to repurchase up to $200 million of our outstanding Class A common stock. The 2016 Share Repurchase Program was completed in April 2018.

ITEM 6. EXHIBITS

Exhibit No.	Description of Exhibit	Incorporated by Reference Form	File No.	Exhibit	Filing Date	Filed or Furnished Herewith
2.1†	Share Sale and Purchase Agreement relating to the sale and purchase of the entire issued share capital of Gram Games Teknoloji A.S. between those persons listed in Schedule 1 as Sellers and Zynga Inc. as Purchaser	8-K	001-35375	2.1	5/30/2018	
3.1	Seventeenth Amended and Restated Certificate of Incorporation of Zynga Inc.	8-K	001-35375	3.1	6/13/2014	
3.2	Second Amended and Restated Bylaws of Zynga Inc.	8-K	001-35375	3.1	3/1/2016	
4.1	Form of Zynga Inc. Class A Common Stock Certificate	S-1/A	333-175298	4.1	11/4/2011	
10.1	Director Nomination Letter	8-K	001-35375	10.1	5/2/2018	
10.2+	Consulting Services Agreement between Zynga Inc. and William B. Gordon, dated as of May 11, 2018					X
31.1	Certification of the Chief Executive Officer of Zynga Inc. pursuant to rule 13a-14 under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
31.2	Certification of the Chief Financial Officer of Zynga Inc. pursuant to rule 13a-14 under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
32.1•	Certification of the Chief Executive Officer and Chief Financial Officer of Zynga Inc. pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					X
101.INS	XBRL Instance Document					
101.SCH	XBRL Taxonomy Extension Schema Document					
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document					
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document					

101.LAB	XBRL Taxonomy Extension Labels Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

+ Indicates management contract or compensatory plan.
¶ Confidential treatment requested as to certain portions of this exhibit, which portions have been omitted and submitted separately to the Securities and Exchange Commission.
• The certification attached as Exhibit 32.1 accompanying this Quarterly Report on Form 10-Q pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, shall not be deemed “filed” for purposes of Section 18 of the Exchange Act or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended, or any other filing under the Exchange Act, except as expressly set forth by specific reference in such a filing.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report on to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of San Francisco, State of California, on August 3, 2018.

ZYNGA INC.

By: /s/ Frank Gibeau
Frank Gibeau
Chief Executive Officer
(On behalf of Registrant)

By: /s/ Gerard Griffin
Gerard Griffin
Chief Financial Officer
(On behalf of Registrant)

By: /s/ Jeffrey Buckley
Jeffrey Buckley
Chief Accounting Officer

(On behalf of Registrant)