ZYNGA INC
Form 10-Q
November 02, 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 September 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 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 every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large accelerated filer	Accelerated filer
Non-accelerated filer	Smaller reporting company
Emerging growth company	

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

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

As of October 15, 2018, there were 861,881,814 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)

	September 30, 2018	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$ 236,447	$ 372,870
Short-term investments	183,834	308,506
Accounts receivable, net of allowance of $281 at September 30, 2018 and $0 at December 31, 2017	107,119	103,677
Restricted cash	10,006	12,807
Prepaid expenses	20,483	24,253
Other current assets	12,764	8,837
Total current assets	570,653	830,950
Goodwill	947,730	730,464
Intangible assets, net	127,851	64,258
Property and equipment, net	266,085	266,589
Restricted cash	25,000	20,000
Prepaid expenses	35,851	23,821
Other non-current assets	46,257	43,251
Total assets	$ 2,019,427	$ 1,979,333
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 9,242	$ 18,938
Income tax payable	1,734	6,677
Deferred revenue	172,172	134,007
Other current liabilities	119,782	123,089
Total current liabilities	302,930	282,711
Deferred revenue	2,135	568
Deferred tax liabilities, net	18,468	5,902
Other non-current liabilities	79,456	48,912
Total liabilities	402,989	338,093
Stockholders' equity:		
Common stock, $0.00000625 par value, and additional paid in capital - authorized shares: 2,020,517; shares outstanding: 861,857 shares (Class A) as of September 30, 2018 and 870,660 (Class A, 783,376, Class B, 66,767, Class C, 20,517) as of December 31, 2017	3,485,667	3,426,505

Accumulated other comprehensive income (loss)	(103,210)	(93,497)
Accumulated deficit	(1,766,019)	(1,691,768)
Total stockholders' equity	1,616,438	1,641,240
Total liabilities and stockholders' equity	$ 2,019,427	$ 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 September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Revenue:				
Online game	$167,716	$175,253	$493,949	$492,479
Advertising and other	65,527	49,342	164,571	135,631
Total revenue	233,243	224,595	658,520	628,110
Costs and expenses:				
Cost of revenue	78,592	65,907	221,816	194,956
Research and development	71,124	60,966	199,340	194,783
Sales and marketing	55,613	53,944	159,346	151,765
General and administrative	23,144	23,826	71,977	69,942
Total costs and expenses	228,473	204,643	652,479	611,446
Income (loss) from operations	4,770	19,952	6,041	16,664
Interest income	1,421	1,502	5,031	3,548
Other income (expense), net	4,014	1,181	10,020	4,231
Income (loss) before income taxes	10,205	22,635	21,092	24,443
Provision for (benefit from) income taxes	5	4,544	6,194	10,733
Net income (loss)	$10,200	$18,091	$14,898	$13,710
Net income (loss) per share attributable to common stockholders:				
Basic	$0.01	$0.02	$0.02	$0.02
Diluted	$0.01	$0.02	$0.02	$0.02
Weighted average common shares used to compute net income (loss) per share attributable to common stockholders:				
Basic	860,988	867,377	863,062	868,707
Diluted	887,228	893,684	890,146	895,207

See accompanying notes to consolidated financial statements.

Zynga Inc.

Consolidated Statements of Comprehensive Income (Loss)

(In thousands)

(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Net income (loss)	$10,200	$18,091	$14,898	$13,710
Other comprehensive income (loss):				
Change in foreign currency translation adjustment	(3,141)	20,490	(9,863)	37,479
Net change in unrealized gains (losses) on available-for-sale marketable debt securities, net of tax	42	(27)	150	(8)
Other comprehensive income (loss), net of tax	(3,099)	20,463	(9,713)	37,471
Comprehensive income (loss)	$7,101	$38,554	$5,185	$51,181

See accompanying notes to consolidated financial statements.

Zynga Inc.

Consolidated Statements of Cash Flows

(In thousands)

(Unaudited)

	Nine Months Ended September 30, 2018	Nine Months Ended September 30, 2017 (As Adjusted)[1]
Cash flows from operating activities:		
Net income (loss)	$ 14,898	$ 13,710
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Depreciation and amortization	29,363	23,889
Stock-based compensation expense	50,236	49,346
(Gain) loss from foreign currency, sales of investments, assets and other, net	497	(206)
(Accretion) and amortization on marketable debt securities, net	(2,043)	(172)
Noncash consideration received	(1,494)	—
Change in deferred income taxes and other	(1,809)	4,222
Changes in operating assets and liabilities:		
Accounts receivable, net	7,302	(12,150)
Other assets	(14,833)	359
Accounts payable	(18,613)	(6,012)
Deferred revenue	43,758	1,913
Income tax payable	(5,180)	2,003
Other liabilities	(23,770)	(8,907)
Net cash provided by (used in) operating activities	78,312	67,995
Cash flows from investing activities:		
Purchases of short-term investments	(267,435)	(255,301)
Maturities of short-term investments	384,300	—
Sales of short-term investments	9,999	—
Acquisition of property and equipment	(7,505)	(6,878)
Proceeds from sale of property and equipment	33	221
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)	(2,500)
Other investing activities, net	375	(7,225)
Net cash provided by (used in) investing activities	(125,108)	(299,264)
Cash flows from financing activities:		
Taxes paid related to net share settlement of stockholders' equity awards	(19,363)	(14,576)
Repurchases of common stock	(73,811)	(96,924)
Proceeds from issuance of common stock	8,925	8,249
Acquisition-related contingent consideration payment	—	(5,115)
Net cash provided by (used in) financing activities	(84,249)	(108,366)

Effect of exchange rate changes on cash, cash equivalents and restricted cash	(3,179)	4,108
Net change in cash, cash equivalents and restricted cash	(134,224)	(335,527)
Cash, cash equivalents and restricted cash, beginning of period	405,677	861,716
Cash, cash equivalents and restricted cash, end of period	$271,453	$ 526,189
Supplemental cash flow information:		
Income taxes paid	$13,991	$ 3,559
Noncash investing activity:		
Software acquired as noncash consideration	$1,494	$ —

(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 September 30, 2018 and December 31, 2017, the interim consolidated statements of operations and statements of comprehensive income (loss) for the three and nine months ended September 30, 2018 and 2017, the statements of cash flows for the nine months ended September 30, 2018 and 2017 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 nine months ended September 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 nine months ended September 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 did not impact our reported earnings per share in the nine months ended September 30, 2018. For the three months ended September 30, 2018, there were no discontinued games that required adjusting the recognition period of deferred revenue generated in prior periods. Further, there were no changes in our estimated average playing period of payers that required adjusting the recognition period of deferred revenue generated in prior periods for the three and nine months ended September 30, 2018.

For the three and nine months ended September 30, 2017, we recognized $0.3 million of online game revenue from changes in our estimated average playing period of payers, which was the result of adjusting the remaining recognition period of deferred revenue generated in prior periods at the time of a change in estimate. These changes in estimates did not impact our earnings per share for the three months ended September 30, 2017. Further, these changes did not impact our basic earnings per share, but had a $0.01 per share impact on our diluted earnings per share for the nine months ended September 30, 2017. There were no discontinued games that required adjusting the recognition period of deferred revenue generated in prior periods for the three and nine months ended September 30, 2017.

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, which the Company plans to 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 finalizing our analysis of the transition adjustment for our real estate contracts, including the determination of the rates used to discount the individual lease liabilities. We are, however, continuing to assess the full impact on our consolidated financial statements, which includes changes to our processes and controls and continued review of non-real estate arrangements.

In August 2018, the FASB issued ASU 2018-15, "Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract", which aligns the accounting for implementation costs incurred with a cloud computing arrangement accounted for as a service arrangement with the guidance in ASC Topic 350-40, Internal-Use Software to determine which implementation costs should be capitalized. The ASU permits either a prospective or retrospective transition approach and is effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted. The Company is currently assessing this standard's impact on its consolidated financial statements.

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

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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 September 30, 2018 was as follows (in thousands):

	As of September 30, 2018		
	Amounts as Reported	Amounts without Adoption of ASC Topic 606	Increase (Decrease) from ASC Topic 606 Adoption
Current liabilities:			
Deferred revenue	$172,172	$183,158	$(10,986)
Total current liabilities	302,930	313,916	(10,986)
Deferred revenue	2,135	1,523	612
Total liabilities	402,989	413,363	(10,374)
Accumulated deficit	(1,766,019)	(1,776,393)	10,374
Total stockholders' equity	1,616,438	1,606,064	10,374
Total liabilities and stockholders' equity	$2,019,427	$2,019,427	$—

As a result of adopting ASC Topic 606, deferred revenue as of September 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 stockholders' equity as of September 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 nine months ended September 30, 2018 was as follows (in thousands):

	Three Months Ended September 30, 2018		
	Amounts as Reported	Amounts without Adoption of ASC Topic 606	Increase (Decrease) from ASC Topic 606 Adoption
Revenue:			
Advertising and other	$65,527	$63,117	$ 2,410

Total revenue	233,243	230,833	2,410
Income (loss) from operations	4,770	2,360	2,410
Income (loss) before taxes	10,205	7,795	2,410
Net income (loss)	$10,200	$7,790	$ 2,410
Net income (loss) per share attributable to common stockholders:			
Basic	$0.01	$0.01	$ 0.00
Diluted	$0.01	$0.01	$ 0.00

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	Nine Months Ended September, 2018		
	Amounts as Reported	Amounts without Adoption of ASC Topic 606	Increase (Decrease) from ASC Topic 606 Adoption
Revenue:			
Advertising and other	$164,571	$158,221	$ 6,350
Total revenue	658,520	652,170	6,350
Income (loss) from operations	6,041	(309)	6,350
Income (loss) before taxes	21,092	14,742	6,350
Net income (loss)	$14,898	$8,548	$ 6,350
Net income (loss) per share attributable to common stockholders:			
Basic	$0.02	$0.01	$ 0.01
Diluted	$0.02	$0.01	$ 0.01

As a result of adopting ASC Topic 606 during the three and nine months ended September 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 nine months ended September 30, 2018 as a result of adopting ASC Topic 606. However, within cash flows from operating activities, net income (loss) is $6.4 million higher and the change in deferred revenue is $6.4 million lower as a result of adopting ASC Topic 606 during the nine months ended September 30, 2018.

Disaggregation of Revenue

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017[(1)]	2018	2017[(1)]
Online game:				
Mobile	$ 149,095	$ 150,730	$ 431,952	$ 417,219
Web	18,621	24,523	61,997	75,260
Online game total	$ 167,716	$ 175,253	$ 493,949	$ 492,479
Advertising and other:				
Mobile	63,371	43,660	155,860	118,652

Web	2,075	2,692	6,657	12,184
Other	81	2,990	2,054	4,795
Advertising and other total	$ 65,527	$ 49,342	$ 164,571	$ 135,631
Total revenue	$ 233,243	$ 224,595	$ 658,520	$ 628,110

(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 September 30,		Nine Months Ended September 30,	
	2018	2017(1)	2018	2017(1)
United States	$153,752	$145,255	$432,289	$413,228
All other countries(2)	79,491	79,340	226,231	214,882
Total revenue	$233,243	$224,595	$658,520	$628,110

(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 42% of online game revenue in the three months ended September 30, 2018 and 43% of online game revenue in the same period of the prior year. Durable virtual items accounted for 58% of online game revenue in the three months ended September 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 September 30, 2018, compared to 8 months in the same period of the prior year.

Consumable virtual items accounted for 45% of online game revenue in the nine months ended September 30, 2018 and 2017. Durable virtual items accounted for 55% of online game revenue in the nine months ended September 30, 2018 and 2017. The estimated weighted average life of durable virtual items was 9 months in the nine months ended September 30, 2018, compared to 8 months in the same period of the prior year.

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 and are 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 nine months ended September 30, 2018, we recognized $9.9 million and $128.1 million, respectively, of revenue that was included in the current deferred revenue balance on January 1, 2018.

The increase in accounts receivable, net during the nine months ended September 30, 2018 was primarily driven by a net increase in accounts receivable of $10.7 million on the acquisition date from our acquisition of Gram Games Teknoloji A.S (“Gram Games”), partially offset by cash collections of current period and previously due amounts exceeding sales on account during the period. The increase in deferred revenue during the nine months ended September 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 September 30, 2018 and December 31, 2017 (in thousands):

	September 30, 2018			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Aggregate Fair Value
Corporate debt securities	$183,862	$ —	$ (28)	$183,834
Total	$183,862	$ —	$ (28)	$183,834

	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 September 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 September 30, 2018, we had unrealized losses of less than $0.1 million related to short-term investments that had a fair value of $53.3 million. None of these securities were in a material continuous unrealized loss position for more than 12 months.

As of September 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 September 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 December 31, 2018 performance targets. As of September 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 $0 as of September 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, a 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. As of September 30, 2018, the estimated fair value of the contingent consideration obligation increased to $46.5 million, primarily due to the increased probability of achievement. For the three and nine months ended September 30, 2018, we have recognized $1.5 million and $3.0 million of expense within research and development expense in our consolidated statement of operations, respectively.

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 September 30, 2018 and December 31, 2017 among the three levels of the fair value hierarchy are as follows (in thousands):

	September 30, 2018			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents:				
Money market funds	$50,959	$—	$—	$50,959
Corporate debt securities	—	24,473	—	24,473
Short-term investments:				
Corporate debt securities	—	183,834	—	183,834
Total financial assets	$50,959	$208,307	$—	$259,266
Liabilities:				
Contingent consideration	$—	$—	$46,500	$46,500

	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 nine months ended September 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	3,000
Contingent consideration obligation – September 30, 2018	$46,500

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

5. Property and Equipment, net

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

	September 30, 2018	December 31, 2017
Computer equipment	$ 20,960	$ 21,583
Software	33,619	32,509
Land	89,130	89,130
Building and building improvements	202,770	199,070
Furniture and fixtures	10,230	10,376
Leasehold improvements	5,703	7,965
Total property and equipment, gross	$ 362,412	$ 360,633
Less: Accumulated depreciation	(96,327)	(94,044)
Total property and equipment, net	$ 266,085	$ 266,589

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

	September 30, 2018	December 31, 2017
United States	$ 262,320	$ 263,037
All other countries	3,765	3,552
Total property and equipment, net	$ 266,085	$ 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. 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 (see Note 4 – “Fair Value Measurements” for further discussion on this estimate). 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	223,924
Property and equipment, net acquired	898
Other non-current assets acquired	329
Total assets acquired	329,088
Accounts payable assumed	(8,874)
Income tax payable assumed	(502)
Other current liabilities assumed	(5,164)
Deferred tax liabilities, net assumed	(15,499)
Total liabilities assumed	(30,039)
Total purchase price consideration	$299,049
Non-current contingent consideration payable	(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 was 4.7 years at acquisition.

Transactions costs incurred by the Company in connection with the Gram Games acquisition, including professional fees, were \$0.4 million and \$1.7 million for the three and nine months ended September 30, 2018, respectively, and were recorded within general and administrative expenses in our consolidated statements of operations.

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 nine months ended September 30, 2018.

7. Goodwill and Intangible Assets, net

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

Goodwill – December 31, 2017[1]	$730,464
Additions	223,924
Foreign currency translation adjustments [2]	(6,658)
Goodwill – September 30, 2018[1]	$947,730

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

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

	September 30, 2018		
	Gross Carrying Value	Accumulated Amortization	Net Book Value
Developed technology	$266,039	$ (162,391)	$ 103,648
Trademarks, branding and domain names	32,772	(11,089)	21,683
Noncompetition agreements	8,390	(6,100)	2,290
Acquired lease intangibles	5,708	(5,478)	230
Total	$312,909	$ (185,058)	$ 127,851

	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 September 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 $9.3 million and $19.8 million for the three and nine months ended September 30, 2018, respectively. Comparatively, amortization expense related to intangible assets was $3.5 million and $13.0 million for the three and nine months ended September 30, 2017, respectively.

As of September 30, 2018, the weighted-average remaining useful lives of our acquired intangible assets are 3.8 years for developed technology, 6.5 years for trademarks, branding and domain names, 1.0 years for noncompetition agreements, 1.6 years for acquired lease intangibles and 4.1 years in total, for all acquired intangible assets.

As of September 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	$9,240
2019	32,394
2020	31,145
2021	23,596
2022	16,368
Thereafter	8,988
Total	$121,731

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 tax, 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 nine months ended September 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 nine months ended September 30, 2018.

On a consolidated basis, the provision for income taxes decreased by $4.5 million in both the three and nine months ended September 30, 2018 as compared to the same periods of the prior year. The decreases in both periods were primarily attributable to a benefit generated from the post-acquisition statutory operating losses from Gram Games and release of uncertain tax position reserves due to a lapse in the statute of limitations, partially 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):

	September 30, 2018	December 31, 2017

Accrued accounts payable	$ 22,641	$ 38,046
Accrued compensation liability	31,097	33,815
Accrued restructuring liability	3,503	3,674
Contingent consideration payable	13,900	—
Accrued payable from acquisitions	10,000	12,800
Accrued lease incentive obligation	24,895	20,059
Value-added taxes payable	1,709	3,453
Other current liabilities	12,037	11,242
Total other current liabilities	$ 119,782	$ 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):

	September 30, 2018	December 31, 2017
Contingent consideration obligation	$ 32,600	$ —
Accrued payable from acquisitions	25,000	20,000
Accrued restructuring liability	8,494	10,856
Uncertain tax positions liability	9,641	8,975
Accrued lease incentive obligation	—	4,836
Other non-current liabilities	3,721	4,245
Total other non-current liabilities	$ 79,456	$ 48,912

10. Restructuring

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Cost of revenue	$ —	$ —	$27	$—
Research and development	—	867	78	1,200
General and administrative	124	128	890	373
Total restructuring charges	$ 124	$ 995	$995	$1,573

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	781	189	25	995
Cash payments	(891)	(2,605)	(32)	(3,528)
Restructuring liability – September 30, 2018	$ 261	$ 11,736	$ —	$11,997
Cumulative costs to date, as of September 30, 2018	$ 2,247	$ 34,513	$ 2,195	$38,955
Total costs expected to be incurred, as of September 30, 2018	$ 2,247	$ 35,112	$ 2,195	$39,554

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 less than $0.1 million and $0.8 million of expense during the three and nine months ended September 30, 2018, respectively, which is included in operating expenses in our consolidated statement of operations. The $0.8 million restructuring charge for the nine months ended September 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.

We also executed an assignment of the office lease associated with this restructuring activity during the third quarter of 2018. The original lease term ends in November of 2022, with a lessee option to early terminate in November 2019. All terms under the original lease were assigned in full to the assignee, with the assignee becoming primarily liable to make rental payments directly to the landlord. Further, the assignee was required to provide the landlord a security deposit equal to twelve months rent, to be used by the landlord in the event of the assignee's non-performance under the lease.

In connection with the assignment, the Company became secondarily liable in the event the assignee is unable to perform under the lease. Based on the current rent and related payments, the maximum exposure to the Company is estimated at $2.2 million as of September 30, 2018. However, the lease is subject to periodic rate reviews which allow the landlord to make market adjustments to the rent and other related payments and accordingly, the maximum exposure may be greater than this amount. In estimating the fair value of this guarantee, the Company considered, amongst other factors, the assignee's financial position, amount of the security deposit provided to the landlord, length of the remaining lease term and the assignee's contractual ability, if necessary, to early terminate the lease. As of September 30, 2018, the fair value of this guarantee is not material.

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 and $0.2 million of other costs during the three and nine months ended September 30, 2018, respectively, which is included in operating expenses in our consolidated statement of operations. The remaining liability is expected to be paid out over the next 3.7 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 September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Cost of revenue	$242	$435	$1,237	$1,425
Research and development	12,039	10,097	31,027	32,293
Sales and marketing	2,232	1,891	6,282	5,429
General and administrative	4,241	3,166	11,690	10,199
Total stock-based compensation expense	$18,754	$15,589	$50,236	$49,346

The following table shows stock option activity for the nine months ended September 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	(364)	4.24		
Exercised	(1,025)	1.64		
Balance as of September 30, 2018	37,697	$ 2.29	$ 65,037	6.27

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:

	Nine Months Ended September 30, 2018	
Expected term, in years	6	
Risk-free interest rates	3.01	%
Expected volatility	43	%
Dividend yield	—	
Weighted-average estimated fair value of options granted	$ 1.84	

The following table shows a summary of ZSU activity for the nine months ended September 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	29,516	3.86	
Vested	(12,793)	2.94	
Forfeited	(6,979)	3.24	
Unvested as of September 30, 2018	55,222	$ 3.44	$ 221,440

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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 2016 Share Repurchase Program at a weighted average price of $2.78 per share for a total of $101.0 million. During the six months ended June 30, 2018, we completed the 2016 Share Repurchase Program by repurchasing 18.2 million shares of our Class A common stock at a weighted average price of $3.59 per share for a total of $65.4 million.

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 ("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 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.

During the third quarter of 2018, we repurchased 2.2 million shares for our Class A common stock under the 2018 Share Repurchase Program at a weighted average price of $3.75 per share for a total of $8.4 million. Further, from October 1, 2018 to October 30, 2018, we repurchased 4.8 million shares of our Class A common stock under the 2018 Share Repurchase Program at a weighted average price of $3.69 per share for a total of $17.8 million.

12. Accumulated Other Comprehensive Income (Loss)

The following table shows a summary of changes in accumulated other comprehensive income (loss) by component for the nine months ended September 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	(9,863)	150	(9,713)
Amounts reclassified from accumulated other comprehensive	—	—	—

income (loss)			
Net other comprehensive income (loss)	(9,863)	150	(9,713)
Balance as of September 30, 2018	$ (103,182)	$ (28)	$(103,210)

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 September 30, 2018 Class A	Nine Months Ended September 30, 2018 Class A[(1)]
BASIC:		
Net income (loss) attributable to common stockholders – basic	$ 10,200	$ 14,898
Weighted-average common shares outstanding – basic	860,988	863,062
Net income (loss) per share attributable to common stockholders – basic	$ 0.01	$ 0.02
DILUTED:		
Net income (loss) attributable to common stockholders – basic	$ 10,200	$ 14,898
Weighted-average common shares outstanding – basic	860,988	863,062
Weighted-average effect of dilutive securities:		
Stock options and employee stock purchase plan	11,871	11,051
ZSUs	13,434	15,098
Performance-based ZSUs	935	935
Weighted-average common shares outstanding – diluted	887,228	890,146
Net income (loss) per share attributable to common stockholders – diluted	$ 0.01	$ 0.02

(1) The net income (loss) per share calculation for the nine months ended September 30, 2018 is presented as if the one-for-one class conversion occurred as of the beginning of the period.

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	Three Months Ended September 30, 2017			Nine Months Ended September 30, 2017		
	Class A	Class B	Class C	Class A	Class B	Class C
BASIC:						
Net income (loss) attributable to common stockholders – basic	$16,240	$1,423	$428	$12,223	$1,155	$324
Weighted-average common shares outstanding – basic	778,614	68,246	20,517	774,917	73,273	20,517
Net income (loss) per share attributable to common stockholders – basic	$0.02	$0.02	$0.02	$0.02	$0.02	$0.02
DILUTED:						
Net income (loss) attributable to common stockholders – basic	$16,240	$1,423	$428	$12,223	$1,155	$324
Reallocation of net income (loss) as a result of conversion of Class C shares to Class A shares	428	—	—	324	—	—
Reallocation of net income (loss) as a result of conversion of Class B shares to Class A shares	1,423	—	—	1,155	—	—
Reallocation of net income (loss) to Class B and Class C shares	—	129	(13)	—	95	(10)
Net income (loss) attributable to common stockholders – diluted	$18,091	$1,552	$415	$13,702	$1,250	$314
Weighted-average common shares outstanding – basic	778,614	68,246	20,517	774,917	73,273	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	68,246	—	—	73,273	—	—
Weighted-average effect of dilutive securities:						
Stock options and employee stock purchase plan	10,125	8,438	—	9,366	8,373	—
ZSUs	15,284	—	—	16,236	—	—
Performance-based ZSUs	898	—	—	898	—	—
Weighted-average common shares outstanding – diluted	893,684	76,684	20,517	895,207	81,646	20,517

Net income (loss) per share attributable to common stockholders – diluted	$0.02	$0.02	$0.02	$ 0.02	$ 0.02	$ 0.02

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 September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Stock options and employee stock purchase plan	7,792	11,859	5,702	17,440
Restricted shares	—	—	—	467
ZSUs	1,164	88	6,066	4,330
Total	8,956	11,947	11,768	22,237

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 September 30, 2018, the Company has a current lease incentive obligation of $24.9 million related to tenant improvements for this lease.

As of September 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	$1,845
2019	11,345
2020	14,369
2021	20,287
2022	20,896
Thereafter	93,982
Total	$162,724

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.

In October 2018, the Company entered into a lease agreement to provide approximately 117,560 square feet of its office space in San Francisco, California to a tenant beginning in April 2019 until August 2031. The agreement provides for total rental payments to be received by the Company of $143.0 million over the term of the lease, with the Company providing tenant improvement allowances of $2.4 million.

Lease Commitments

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

Year ending December 31:	
Remaining 2018	$1,720
2019	8,394
2020	6,567
2021	5,235
2022	1,507
Thereafter	—

Total	$23,423

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 September 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	$1,375
2019	20,699
2020	42,656
Thereafter	—
Total	$64,730

Other Purchase Commitments

We have entered into several contracts primarily for hosting of data systems and other services. As of September 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	$7,246
2019	22,888
2020	18,948
2021	8,861
Thereafter	—
Total	$57,943

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.

In response to the filing of the stipulation of settlement, the plaintiff requested discovery relating to the settlement, and following negotiations over scope of the discovery, the Special Litigation Committee responded with written and oral discovery. Following the close of settlement-related discovery in late October 2018, plaintiff informed the parties that he will endorse the stipulated and proposed settlement as a reasonable exercise of the Special Litigation Committee's business judgment. Accordingly, the settling parties filed a revised stipulated proposed scheduling order that the court signed and entered on October 30, 2018. The terms of that scheduling order require Zynga to provide shareholder notice of the settlement within 10 business days of the scheduling order's entry and establish a briefing schedule and a date of January 17, 2019 for a hearing regarding final court approval of the settlement and plaintiff's application for a related fee and expense award.

Given the settlement remains pending until final approval, 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 87 million average monthly active users of our games ("MAUs") in the third 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 nine months ended September 30, 2018, we estimate that 51%, 37% and 9% of our revenue and 51%, 38% and 9% of our bookings were generated on Apple, Google and Facebook platforms, respectively, while in the same period of the prior year, we estimate that 50%, 33% and 13% of revenue and 51%, 34% and 11% 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 September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Reconciliation of Revenue to Bookings:				
Revenue	$ 233,243	$ 224,595	$ 658,520	$ 628,110
Change in deferred revenue	15,632	(11,108)	43,756	1,913
Bookings	$ 248,875	$ 213,487	$ 702,276	$ 630,023

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 for 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 nine months ended September 30, 2018 and 2017:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
	(users and payers in millions)			
Average DAUs[1]	22	21	24	21
Average MAUs[1]	87	80	90	77
Average MUUs[2]	52	51	52	53
Average MUPs[2]	1.0	1.2	1.1	1.2
ABPU	$0.121	$0.113	$ 0.109	$ 0.110

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

(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 September 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). These increases were partially offset by a decrease in average DAUs and MAUs for Solitaire. Average MUUs were relatively flat when comparing the three months ended September 30, 2018 to the same period of the prior year, while MUPs decreased primarily from slight declines in unique payers from our CSR games, Zynga Poker and The Wizard of Oz: Magic Match. ABPU increased in the three months ended September 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 September 30,	
	2018	2017
Average monthly unique payer bookings (in millions)(1)	$ 50	$ 55
Average MUPs (in millions)(2)	1.0	1.2
Monthly unique payer bookings per MUP(3)	$ 48	$ 46

(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 and bookings from advertising. For the three months ended September 30, 2018, bookings from 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 September 30, 2017, bookings from Daily Celebrity Crossword, Solitaire and our Facebook Instant Games are excluded.

(2) For the three months ended September 30, 2018, MUPs from 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 September 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 Zynga Poker, FarmVille 2, Wizard of Oz: Magic Match and Crazy Cake Swap, 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.

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 Act 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 nine months ended September 30, 2018.

Results of Operations

Revenue

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2018	2017(1)	% Change		2018	2017(1)	% Change	
	(dollars in thousands)				(dollars in thousands)			
Online game:								
Mobile	$ 149,095	$ 150,730	-1	%	$ 431,952	$ 417,219	4	%
Web	18,621	24,523	(24	)%	61,997	75,260	(18	)%
Online game total	167,716	175,253	-4	%	493,949	492,479	0	%
Advertising and other:								
Mobile	63,371	43,660	45	%	155,860	118,652	31	%
Web	2,075	2,692	(23	)%	6,657	12,184	(45	)%
Other	81	2,990	(97	)%	2,054	4,795	(57	)%
Advertising and other total	65,527	49,342	33	%	164,571	135,631	21	%
Total revenue	$ 233,243	$ 224,595	4	%	$ 658,520	$ 628,110	5	%

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

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

Total revenue increased $8.6 million in the three months ended September 30, 2018 compared to the same period of the prior year, while bookings increased $35.4 million in the three months ended September 30, 2018 compared to the same period of the prior year. Average DAUs increased from 21 million in the three months ended September 30, 2017 to 22 million in the three months ended September 30, 2018, ABPU increased from $0.113 in the three months ended September 30, 2017 to $0.121 in the three months ended September 30, 2018 and average MUPs decreased from 1.2 million in the three months ended September 30, 2017 to 1.0 million in the three months ended September 30, 2018.

Online game revenue decreased $7.5 million in the three months ended September 30, 2018 compared to the same period of the prior year, with web online game revenue accounting for $5.9 million of the decrease and mobile online game revenue accounting for $1.6 million of the decrease. The decrease in web online game revenue of $5.9 million was primarily attributable to a decrease in revenue from FarmVille 2 and Zynga Poker of $4.3 million and $2.5 million respectively, due to the overall decline in bookings and audience metrics in these games. These decreases were offset by a net increase of $0.9 million from remaining web games. The decrease in mobile online game revenue of $1.6 million was primarily attributable to a decrease in revenue from Dawn of Titans, Wizard of Oz: Magic Match, Black Diamond Slots, Zynga Poker and Farmville: Tropic Escape in the amounts of $4.4 million, $3.0 million, $2.7 million, $2.7 million and $2.3 million respectively, due to the overall decline in bookings and audience metrics in these games. These declines were offset by an increase in revenue from casual card games in the amount of $11.6

million and Merge Dragons! in the amount of $6.5 million, as these games were acquired in December 2017 and May 2018, respectively. All other mobile games accounted for the remaining net decrease of $4.6 million in mobile online game revenue.

For both the three months ended September 30, 2018 and 2017, there were no discontinued games that required adjusting the recognition period of deferred revenue generated in prior periods. Further, for the three months ended September 30, 2018 there were no changes in our estimated average playing period of payers that required adjusting the recognition period of deferred revenue generated in prior periods. For the three months ended September 30, 2017, changes in our estimated average playing period of payers for various games resulted in an increase in online game revenue and income from operations of $0.3 million, which is due to adjusting the remaining recognition period of deferred revenue generated in prior periods at the time of a change in estimate. The change in estimate did not impact our earnings per share (basic and diluted) for the three months ended September 30, 2017.

In the three months ended September 30, 2018, Zynga Poker (mobile and web), CSR Racing 2 (mobile) and Hit It Rich! Slots (mobile and web) were our top online revenue-generating games and comprised 20%, 14% and 10%, respectively, of our online game revenue for the period. In the three months ended September 30, 2017, Zynga Poker (mobile and web) and CSR Racing 2 (mobile) were our top revenue-generating games and comprised 22% and 14%, 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 42% of online game revenue in the three months ended September 30, 2018 and 43% of online game revenue in the same period of the prior year. Durable virtual items accounted for 58% of online game revenue in the three months ended September 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 September 30, 2018, compared to 8 months in the same period of the prior year.