

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

FORM 8-K

CURRENT REPORT  
Pursuant to Section 13 or 15(d) of the  
Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): August 4, 2022

Duolingo, Inc.  
(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction  
of incorporation)

001-40653  
(Commission  
File Number)

45-3055872  
(IRS Employer  
Identification Number)

5900 Penn Avenue  
Pittsburgh, Pennsylvania 15206  
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (412) 567-6602

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A common stock, \$0.0001 par value per share	DUOL	The Nasdaq Stock Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

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.

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**Item 2.02 Results of Operations and Financial Condition**

On August 4, 2022, Duolingo, Inc. (the "Company") issued a press release announcing the financial results of the Company for the three and six months ended June 30, 2022. A copy of the press release is being furnished as Exhibit 99.1 attached hereto and is incorporated by reference herein.

In accordance with General Instruction B.2 of Form 8-K, the information in this Item 2.02 of this Current Report on Form 8-K, including Exhibit 99.1 attached hereto, shall not be deemed "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

**Item 9.01 Financial Statements and Exhibits**

(d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
99.1	<a href="#">Press Release dated August 4, 2022</a>
99.2	<a href="#">Shareholder Letter dated August 4, 2022</a>

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**SIGNATURES**

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

**DUOLINGO, INC.**

Date: August 4, 2022

By: /s/ Matthew Skaruppa

Matthew Skaruppa

Chief Financial Officer

(Principal Financial Officer and Principal Accounting Officer)



## Duolingo Announces 51% Bookings Growth and Accelerating User Growth in Second Quarter 2022; Raises Full Year Guidance

**Pittsburgh, PA – August 4, 2022** – Duolingo, Inc. (NASDAQ: DUOL), the world's leading mobile learning platform, announced results for the second quarter ended June 30, 2022 in a shareholder letter that is posted at [investors.duolingo.com](https://investors.duolingo.com).

"Our second quarter results exceeded expectations, driven by accelerating user growth and strength across our entire business," said Luis von Ahn, Co-Founder and CEO of Duolingo. "I'm very proud that we delivered over 50% growth in bookings and revenue from the prior year quarter, despite a challenging macroeconomic environment. We see this growth as a result of our relentless focus on constant product improvement. Through continuous experimentation, we are driving organic growth, deeper user engagement, and stronger free-to-paid user conversion."

### Second Quarter 2022 Highlights

- Total bookings were \$97.5 million, an increase of 51% from the prior year quarter;
- Subscription bookings were \$74.1 million, an increase of 51% from the prior year quarter;
- Paid Subscribers totaled 3.3 million at quarter end, an increase of 71% from the prior year quarter;
- Monthly active users (MAUs) grew 31% to 49.5 million from the prior year quarter and Daily active users (DAUs) grew 44% to 13.2 million from the prior year quarter;
- Total revenues were \$88.4 million, an increase of 50% from the prior year quarter;
- Net loss totaled \$15.0 million, compared to a net loss of \$0.2 million in the prior year quarter, with the majority of the change driven by an increase in stock-based compensation;
- Adjusted EBITDA was \$4.2 million, compared to \$3.7 million in the prior year quarter.

### Financial and Operating Metrics

The following table summarizes our financial and operating highlights for the quarter ended June 30, 2022.

<i>(In millions)</i>	Three Months Ended June 30,		% Change
	2022	2021	
<b>Operating Metrics</b>			
Monthly active users (MAUs)	49.5	37.9	31 %
Daily active users (DAUs)	13.2	9.1	44 %
Paid subscribers (at period end)	3.3	1.9	71 %

<i>(In thousands)</i>	Three Months Ended June 30,		% Change
	2022	2021	
<b>Operating Metrics</b>			
Subscription bookings	\$ 74,123	\$ 48,941	51 %
Total bookings	\$ 97,467	\$ 64,538	51 %

<b>Financial Measures</b>			
Total revenues (GAAP)	\$ 88,386	\$ 58,803	50 %
Net loss (GAAP)	\$ (15,045)	\$ (176)	8448 %
Adjusted EBITDA (Non-GAAP)	\$ 4,198	\$ 3,702	13 %

The following table provides revenues by product type:

<i>(in thousands)</i>	Three Months Ended June 30,		Change	% Change
	2022	2021		
Subscription	\$ 65,194	\$ 43,502	\$ 21,692	50 %
Advertising	\$ 11,218	\$ 9,056	\$ 2,162	24 %
Duolingo English Test	\$ 8,036	\$ 4,833	\$ 3,203	66 %
Other	\$ 3,938	\$ 1,412	\$ 2,526	179 %
Total revenues	\$ 88,386	\$ 58,803	\$ 29,583	50 %

#### Financial Outlook

Duolingo is providing the following guidance for the third quarter ending September 30, 2022 and the full year ending December 31, 2022:

<i>(in millions)</i>	Third Quarter 2022		Full Year 2022	
	Low	High	Low	High
Total Bookings	\$94.0	\$97.0	\$404.0	\$410.0
Revenues	\$93.0	\$96.0	\$361.0	\$367.0
Adjusted EBITDA	\$(4.5)	\$(1.5)	\$4.0	\$7.0

With regards to the Non-GAAP Adjusted EBITDA outlook provided above, a reconciliation to GAAP net loss, the most directly comparable financial measure presented in accordance with GAAP, has not been provided as the quantification of certain items included in the calculation of GAAP net loss cannot be calculated or predicted at this time without unreasonable efforts. For example, the non-GAAP adjustment for stock-based compensation expenses related to equity awards requires additional inputs such as number of shares granted and market price that are not currently ascertainable, and the non-GAAP

adjustment for certain legal, tax and regulatory reserves and expenses depends on the timing and magnitude of these expenses and cannot be accurately forecasted. For the same reasons, we are unable to address the probable significance of the unavailable information, which could have a potentially unpredictable, and potentially significant, impact on our future GAAP financial results.

#### **Video Webcast**

Duolingo will host a video webcast to discuss its quarterly results today, August 4, 2022 at 5:30 p.m. ET. This live webcast and related materials will be publicly available and can be accessed at [investors.duolingo.com](https://investors.duolingo.com). A replay will be available on the Investor Relations website two hours following completion of the call and will remain available for a period of one year.

#### **About Duolingo**

Duolingo is the leading mobile learning platform globally. Its flagship app has organically become the world's most popular way to learn languages and the top-grossing app in the Education category on both Google Play and the Apple App Store. With technology at the core of everything it does, Duolingo has consistently invested to provide learners a fun, engaging, and effective learning experience while remaining committed to its mission to develop the best education in the world and make it universally available.

#### **Definitions**

**Subscription Bookings and Total Bookings.** Subscription bookings represent the amounts we receive from a purchase of a subscription to Super Duolingo (formerly called Duolingo Plus). Total bookings represent the amounts we receive from a purchase of a subscription to Super Duolingo, a purchase of a Duolingo English Test, an in-app purchase for a virtual good and from advertising networks for advertisements served to our users. We believe bookings provide an indication of trends in our operating results, including cash flows, that are not necessarily reflected in our revenues because we recognize subscription revenues ratably over the lifetime of a subscription, which is generally from one to twelve months.

**Monthly Active Users (MAUs).** MAUs are defined as unique Duolingo users who engage with our mobile language learning application or the language learning section of our website each month. MAUs are reported for a measurement period by taking the average of the MAUs for each calendar month in that measurement period. MAUs are a measure of the size of our global active user community on Duolingo.

**Daily Active Users (DAUs).** DAUs are defined as unique Duolingo users who engage with our mobile language learning application or the language learning section of our website each calendar day. DAUs are reported for a measurement period by taking the average of the DAUs for each day in that measurement period. DAUs are a measure of the consistent engagement of our global user community on Duolingo.

**Paid Subscribers.** Paid subscribers are defined as users who pay for access to Super Duolingo, including subscribers who pay for a family plan, and had an active subscription as of the end of the measurement period. Each unique user account is treated as a single paid subscriber regardless of whether such user purchases multiple subscriptions, and the count of paid subscribers does not include users who are currently on a free trial or who are non-paying members of a family plan.

**Forward-Looking Statements**

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. We intend such forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in Section 27A of the Securities Act of 1933, as amended (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). All statements other than statements of historical facts contained in this press release, including without limitation, statements regarding our business model and strategic plans and our financial outlook for the third quarter and fiscal year 2022 are forward-looking statements. Without limiting the generality of the foregoing, you can identify forward-looking statements because they contain words such as "may," "will," "shall," "should," "expects," "plans," "anticipates," "could," "intends," "target," "projects," "contemplates," "believes," "estimates," "predicts," "potential," "goal," "objective," "seeks," or "continue" or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans, or intentions. Such forward-looking statements are subject to a number of known and unknown risks, uncertainties and assumptions, and actual results may differ materially from those expressed or implied in the forward-looking statements due to various factors, including, but not limited to: our ability to retain and grow our users and sustain their engagement with our products; competition in the online language learning industry; our limited operating history; our ability to achieve profitability; our ability to manage our growth and operate at such scale; the success of our investments; our reliance on third-party platforms to store and distribute our products and collect revenue; our reliance on third-party hosting and cloud computing providers; our ability to compete for advertisements; acceptance by educational organizations of technology-based education; our ability to access, collect, and use personal data about our users and payers, and to comply with applicable data privacy laws; potential intellectual property-related litigation and proceedings, our ability adequately obtain, protect and maintain our intellectual property rights; and the other important factors more fully detailed under the caption "Risk Factors" in our Annual report on Form 10-K for the fiscal year ended December 31, 2021, as any such factors may be updated from time to time, including in our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2022 and in our other filings with the SEC, accessible on the SEC's website at [www.sec.gov](http://www.sec.gov) and the Company's Investor Relations website at <https://investors.duolingo.com>. All forward-looking statements speak only as of the date of this press release and, except as required by applicable law, we have no obligation to update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

**Limitation of Key Metrics and Other Data**

We manage our business by tracking several operating metrics, including MAUs, DAUs, paid subscribers, and bookings. While these metrics are based on what we believe to be reasonable estimates of our user base for the applicable period of measurement, there are inherent challenges in measuring how our platform is used. These metrics are determined by using internal data gathered on an analytics platform that we developed and operate and have not been validated by an independent third party. This platform tracks user account and session activity. If we fail to maintain an effective analytics platform, our metrics calculations may be inaccurate. Because we update the methodologies we employ to create metrics, our operating metrics may not be comparable to those in prior periods. Other companies, including companies in our industry, may calculate these metrics differently.

**Non-GAAP Financial Measures**

We use certain non-GAAP financial measures to supplement our consolidated financial statements, which are presented in accordance with GAAP. These non-GAAP financial measures include Adjusted EBITDA. Please refer to the definitions and reconciliation at the end of this press release. We use these non-GAAP financial measures for financial and operational decision-making and as a means to evaluate period-to-period comparisons. By excluding certain items that may not be indicative of our recurring core operating results, we believe that Adjusted EBITDA provides meaningful supplemental information regarding our performance. Accordingly, we believe these non-GAAP financial measures are useful to investors and others because they allow for additional information with respect to financial measures used by management in its financial and operational decision-making and they may be used by our institutional investors and the analyst community to help them analyze the health of our business. However, there are a number of limitations related to the use of non-GAAP financial measures, and these non-GAAP measures should be considered in addition to, not as a substitute for or in isolation from, our financial results prepared in accordance with GAAP. Other companies, including companies in our industry, may calculate these non-GAAP financial measures differently or not at all, which reduces their usefulness as comparative measures.

**Website Information**

We routinely post important information for investors on the Investor Relations section of our website, [investors.duolingo.com](http://investors.duolingo.com) and also from time to time may use social media channels, including our Twitter account ([twitter.com/duolingo](https://twitter.com/duolingo)) and our LinkedIn account ([linkedin.com/company/duolingo/](https://linkedin.com/company/duolingo/)), as an additional means of disclosing public information to investors, the media and others interested in us. It is possible that certain information we post on our website and on social media could be deemed to be material information, and we encourage investors, the media and others interested in us to review the business and financial information we post on our website and on the social media channels identified above, in addition to following our press releases, SEC filings, public conference calls, presentations and webcasts. The information contained on, or that may be accessed through, our website and our social media channels is not incorporated by reference into, and is not a part of, this document.

**DUOLINGO, INC. AND SUBSIDIARIES**  
**UNAUDITED CONDENSED CONSOLIDATED BALANCE SHEETS**  
*(Amounts in thousands, except par value amounts)*

	June 30, 2022	December 31, 2021
<b>ASSETS</b>		
Cash and cash equivalents	\$ 591,160	\$ 553,922
Accounts receivable	28,209	33,163
Deferred cost of revenues	29,218	24,219
Prepaid expenses and other current assets	6,563	7,967
Noncurrent Assets	45,900	42,040
<b>Total assets</b>	<b>\$ 701,050</b>	<b>\$ 661,311</b>
<b>LIABILITIES, CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY</b>		
Accounts payable	\$ 1,504	\$ 7,818
Deferred revenues	128,194	98,267
Accrued expenses and other current liabilities	17,628	13,046
Long-term obligation under operating leases	25,505	29,124
<b>Total liabilities</b>	<b>172,831</b>	<b>148,255</b>
<b>Total stockholders' equity</b>	<b>528,219</b>	<b>513,056</b>
<b>Total liabilities, convertible preferred stock and stockholders' equity</b>	<b>\$ 701,050</b>	<b>\$ 661,311</b>

**DUOLINGO, INC. AND SUBSIDIARIES**  
**UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS**  
*(Amounts in thousands, except per share amounts)*

	Three Months Ended June 30,	
	2022	2021
Revenues	\$ 88,386	\$ 58,803
Cost of revenues	23,869	16,137
Gross profit	64,517	42,666
Operating expenses:		
Research and development	34,217	21,940
Sales and marketing	15,277	9,619
General and administrative	30,057	11,585
Total operating expenses	79,551	43,144
Loss from operations	(15,034)	(478)
Other income (expense), net	130	303
Loss before provision for income taxes	(14,904)	(175)
Provision for income taxes	141	1
Net loss and comprehensive loss	\$ (15,045)	\$ (176)
Net loss per share attributable to Class A and Class B common stockholders, basic	\$ (0.38)	\$ (0.01)
Net loss per share attributable to Class A and Class B common stockholders, diluted	\$ (0.38)	\$ (0.01)

**DUOLINGO, INC. AND SUBSIDIARIES**  
**UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**  
*(Amounts in thousands)*

	Six Months Ended June 30,	
	2022	2021
Cash flows from operating activities:		
Net loss	\$ (27,199)	\$ (13,648)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation and amortization	1,944	1,236
Stock-based compensation	32,700	5,458
Changes in assets and liabilities	25,844	11,181
Net cash provided by operating activities	<u>33,289</u>	<u>4,227</u>
Net cash used for investing activities	<u>(5,713)</u>	<u>(3,634)</u>
Net cash provided by (used for) financing activities	<u>9,662</u>	<u>(6,447)</u>
Net increase (decrease) in cash and cash equivalents	37,238	(5,854)
Cash and cash equivalents - Beginning of period	553,922	120,490
Cash and cash equivalents - End of period	<u>\$ 591,160</u>	<u>\$ 114,636</u>

**DUOLINGO, INC. AND SUBSIDIARIES**  
**ADJUSTED EBITDA RECONCILIATION**  
*(Amounts in thousands)*

**Adjusted EBITDA.** Adjusted EBITDA is defined as net loss excluding interest (income) expense, net, income tax provision, depreciation and amortization, IPO and public company costs, stock-based compensation expenses related to equity awards and other expenses. Adjusted EBITDA is used by management to evaluate the financial performance of our business and we present Adjusted EBITDA because we believe it is helpful in highlighting trends in our operating results and that it is frequently used by analysts, investors and other interested parties to evaluate companies in our industry. The following table presents a reconciliation of our net loss, the most directly comparable financial measure presented in accordance with GAAP, to Adjusted EBITDA:

<i>(In thousands)</i>	<b>Three Months Ended June 30,</b>	
	<b>2022</b>	<b>2021</b>
Net loss	\$ (15,045)	\$ (176)
Interest (income) expense, net	(669)	(1)
Provision for income taxes	141	1
Depreciation and amortization	1,170	636
IPO and public company costs (1)	107	1,213
Stock-based compensation expenses related to equity awards (2)	18,494	2,907
Other expenses (3)	—	(878)
Adjusted EBITDA	<u>\$ 4,198</u>	<u>\$ 3,702</u>

(1) IPO and public company costs include costs associated with IPO readiness incurred in 2021 and costs associated with the establishment of our public company structure and processes, including consultant costs, a one-time fee associated with the set-up of our initial proxy statement, and fees paid to consultants and Deloitte for work in connection with remediation of the material weakness disclosed in our Annual Report on Form 10-K.

(2) In addition to stock-compensation expense, this includes costs incurred related to taxes paid on equity transactions.

(3) Represents one-time cash awards to Duolingo contributors under our non-employee volunteer program included within Sales and marketing expenses within our Unaudited Condensed Consolidated Statements of Operations and Comprehensive Loss.

**Contacts**

**Investor Relations:**

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 IR@duolingo.com

**Press:**

Sam Dalsimer, Global Head of Communications  
 press@duolingo.com

# shareholder letter Q2 2022



**our mission is  
to develop the  
best education  
in the world  
and make it  
universally  
available.**

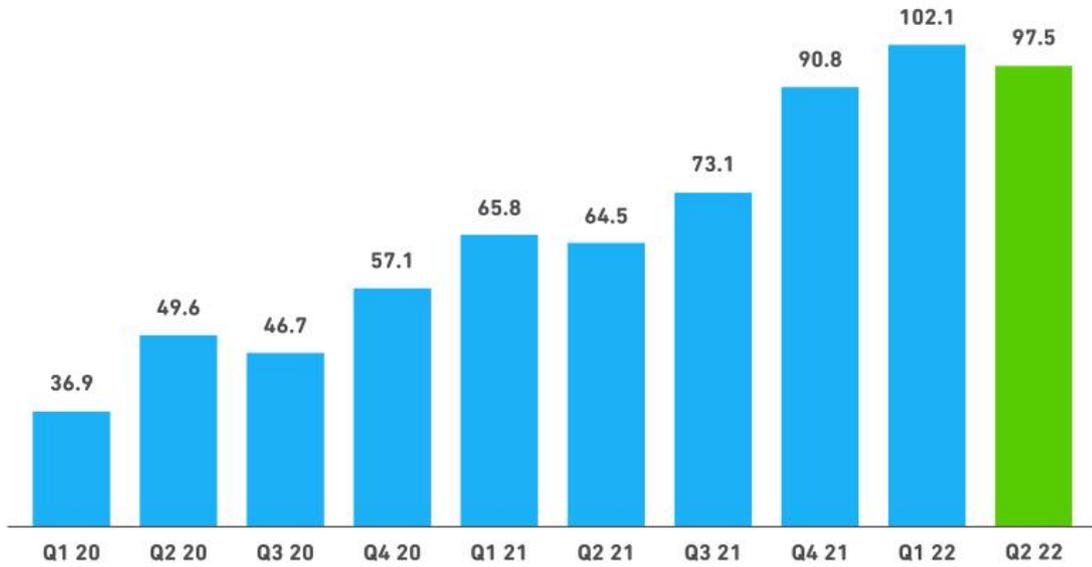


## Q2 Highlights

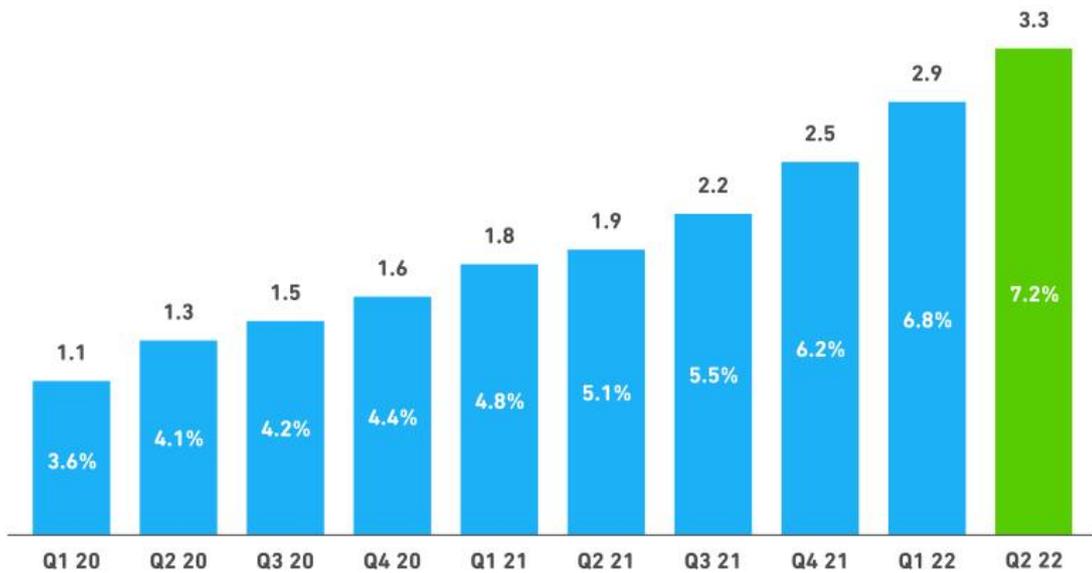
	Q2 2021	Q2 2022
Daily Active Users	9.1M	13.2M +44% YoY
Monthly Active Users	37.9M	49.5M +31% YoY
Paid Subscribers at period end	1.9M	3.3M +71% YoY
Revenue	\$58.8M	\$88.4M +50% YoY
Total Bookings	\$64.5M	\$97.5M +51% YoY
Net Loss	\$(0.2)M	\$(15.0)M
Adjusted EBITDA	\$3.7M	\$4.2M

Percentages presented are calculated from the underlying numbers in thousands.

### Total Bookings (\$M)



### Paid Subscribers (M) and Subscriber Penetration as % of MAU\*



\*LTM MAU

## Dear Shareholders,

We again delivered strong performance this quarter: our user growth accelerated, and we beat our bookings and revenue expectations. Specifically, in the second quarter of 2022:

- DAUs of our language learning app increased 44% to 13.2 million and MAUs increased 31% to 49.5 million, compared to the prior year quarter;
- Paid Super Duolingo subscribers increased 71% to 3.3 million, compared to the prior year quarter;
- Total company bookings grew 51% and revenue grew 50% compared to the prior year quarter.

We're proud of this outperformance, especially in light of the uncertain macroeconomic environment. Taking both of these factors into account, **we're raising our 2022 full year guidance**, which now reflects 38% year over year growth in total bookings.

In the first quarter's shareholder letter, I mentioned that our growth is not driven by one specific thing, but rather a confluence of factors. Since we continue to get questions about what's driving our strong performance, I'd like to use this quarter's letter to further elaborate on the elements that make us special and help us grow: our mission, our culture, our business model, and our operating principles. Afterwards, I'll give a few other brief updates on our business.

### The Fundamentals

Delivering best-in-class product innovation starts with having amazing employees. We believe we're able to attract and retain the best talent in large part because **our mission** of universal access to education is inspiring. Together we have changed the way people around the world learn languages and we believe we have helped millions improve their lives.

Our **company culture** has been over a decade in the making and can be characterized as fun, full of kindness, and one that celebrates innovation. This culture has led to extremely high employee retention, which in turn has led to stable, experienced teams that overperform.

Our freemium **business model** has also been crucial to our growth. As I reflect on our journey, I can confidently say that two of the best decisions we made when we first launched the Duolingo app were (1) giving it away for free and (2) making it fun. Rather than monetizing through a paywall or degrading the free user experience, we focused on creating an engaging free app that gamifies the language learning process. We believe this strategy allowed us to build a huge pool of learners who use and love our product, who tell their friends about it, and who we can convert to paid subscribers.

The final element that has helped us grow is one of our core **operating principles**: Test Everything, by which we actually mean **"A/B test everything."** And while some investors already understand the concept of A/B testing, I thought it would be helpful to pull back the curtain on our approach to experimentation and elaborate on how it helps us grow.

## Duolingo's A/B Testing Process

Imagine that we want to determine if changing a button from saying "Start free trial" to "Start my free week" leads to more people starting a free trial of our premium subscription, Super Duolingo, and subsequently to higher bookings. Our infrastructure allows us to easily set up an A/B test to measure this, in which we select a fraction of learners who satisfy certain criteria and expose half of them to the control condition ("Start free trial") and the other half to the experiment condition ("Start my free week"). For instance, we can randomly pick 10% of our learners in the United States, and then half of them (5%), chosen at random, would see "Start free trial" and the other half would see "Start my free week." After a few days of both groups seeing their respective buttons, our tools tell us which group has higher bookings and what the impact is on other metrics like user retention, and, if "Start my free week" is better than the control condition, we change the button for all of our users.

We use A/B testing to optimize nearly everything related to our products, from new gamification features, to our learning content, to our Super purchase page design, and even to the notifications that learners receive as reminders to do their lessons. These tests help us grow users, teach better, and grow subscribers, all of which are key elements of our growth strategy. We run about 500 A/B tests every quarter.

We start our A/B testing process with a hypothesis that comes from a combination of user feedback, data from our learners, past experiment learnings, and our own intuition. Every experiment that we run has defined measures of success and constraints that we call "guardrails." These measures fall into three categories that encapsulate what we care most about: learning efficacy, user engagement, and monetization. Usually a metric from one of these categories will be the measure of success and the other two will form the guardrails. For example, if we're trying to increase subscriber monetization by changing what a button says, like in the example above, we may look to optimize bookings without sacrificing learning efficacy or free user retention.

Below is a timeline of how our premium subscription **purchase screen** has evolved over time through our A/B testing process. Every screen in this sequence increased bookings compared to the previous one.



**duolingo PLUS**

Choose a plan for after your 7-day free trial

1 MONTH \$12.99 / MO	<b>POPULAR</b> 12 MONTHS \$98.88 \$8.25 / MO	6 MONTHS \$39.99 \$9.99 / MO
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NO THANKS

**duolingo PLUS**

Choose a plan for after your 7-day free trial

1 MONTH \$9.99 / MO	<b>POPULAR</b> 12 MONTHS \$81.88 \$6.99 / MO	6 MONTHS \$47.94 \$7.99 / MO
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NO THANKS

Recurring billing, cancel anytime. If you choose to purchase Duolingo Plus, payment will be charged to

**duolingo PLUS**

Choose a plan for after your 7-day free trial

1 MONTH \$9.99 / MO	<b>POPULAR</b> 12 MONTHS \$119.88 \$79.99 \$6.67 / MO	6 MONTHS \$47.94 \$7.99 / MO
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Cancel anytime in App Store

START MY FREE WEEK

NO THANKS

Recurring billing, cancel anytime. If you choose to purchase Duolingo Plus, payment will be charged to

**duolingo PLUS**

Choose a plan for after your 7-day free trial

1 MONTH \$9.99 / MO	<b>POPULAR</b> 12 MONTHS \$83.88 \$6.99 / MO SAVE 15%	6 MONTHS \$47.94 \$7.99 / MO
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START MY FREE WEEK

NO THANKS

Recurring billing, cancel anytime. If you choose to purchase Duolingo Plus, payment will be charged to

**duolingo PLUS**

Choose a plan for after your 7-day free trial

1 month \$12.99 / MO	<b>POPULAR</b> 12 months \$155.88 \$79.99 \$6.67 / MO	6 months \$47.99 \$7.99 / MO
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Cancel anytime in App Store

START MY FREE WEEK

**duolingo PLUS**

Choose a plan for after your 14-day free trial

1 month \$12.99 / MO	<b>MOST POPULAR</b> 12 months \$155.88 \$79.99 \$6.67 / MO
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Cancel anytime in App Store

TRY FREE AND SUBSCRIBE

**PLUS**

Try Plus for 2 weeks free!

Plus learners are 4.2x more likely to finish the Spanish course!

1 month \$12.99 / MO	<b>MOST POPULAR</b> 12 months \$155.88 \$79.99 \$6.67 / MO
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Cancel anytime in App Store

TRY FREE AND SUBSCRIBE

Your annual subscription automatically renews for the same term unless cancelled at

**duolingo PLUS**

Choose a plan for after your 14-day free trial

1 month \$12.99 / MO	<b>MOST POPULAR</b> 12 months \$155.88 \$79.99 \$6.67 / MO
-------------------------	---

**UP TO 6 MEMBERS**

**Family Plan**  
12 mo + \$119.99  
\$9.99 / MO

Cancel anytime in App Store

TRY FREE AND SUBSCRIBE

Your annual subscription automatically renews for

**PLUS**

How your free trial works

- Today** Unlock full access to all Duolingo Plus features
- Day 12** Get reminded when your trial is about to end
- Day 14** Your account is charged, cancel anytime before

14 day free trial, then \$79.99 per year (\$6.67/month)

TRY FREE AND SUBSCRIBE

VIEW ALL PLANS

Your annual subscription automatically renews for the same term unless cancelled at least 24 hours

**PLUS**

How your free trial works

- Today** Unlock full access to all Duolingo Plus features
- Day 12** Get reminded when your trial is about to end
- Day 14** Your account is charged, cancel anytime before

START MY FREE 14 DAYS

NO THANKS

**PLUS**

How your free trial works

- Today** Unlock full access to all Super Duolingo features
- Day 12** Get reminded when your trial is about to end
- Day 14** Your account is charged, cancel anytime before

START MY FREE 14 DAYS

GO BACK

**SUPER**

How your free trial works

- Today** Unlock full access to all Super Duolingo features
- Day 12** Get reminded when your trial is about to end
- Day 14** Your account is charged, cancel anytime 24 hours before

TRY IT FOR FREE

NO THANKS

The purchase screen is an example of one of the thousands of features, designs, flows, and mechanics that we've optimized through A/B testing. We believe this constant product iteration accounts for not only a better product, but also a significant portion of our organic growth, engagement, and subscriber conversion.

## Product Updates

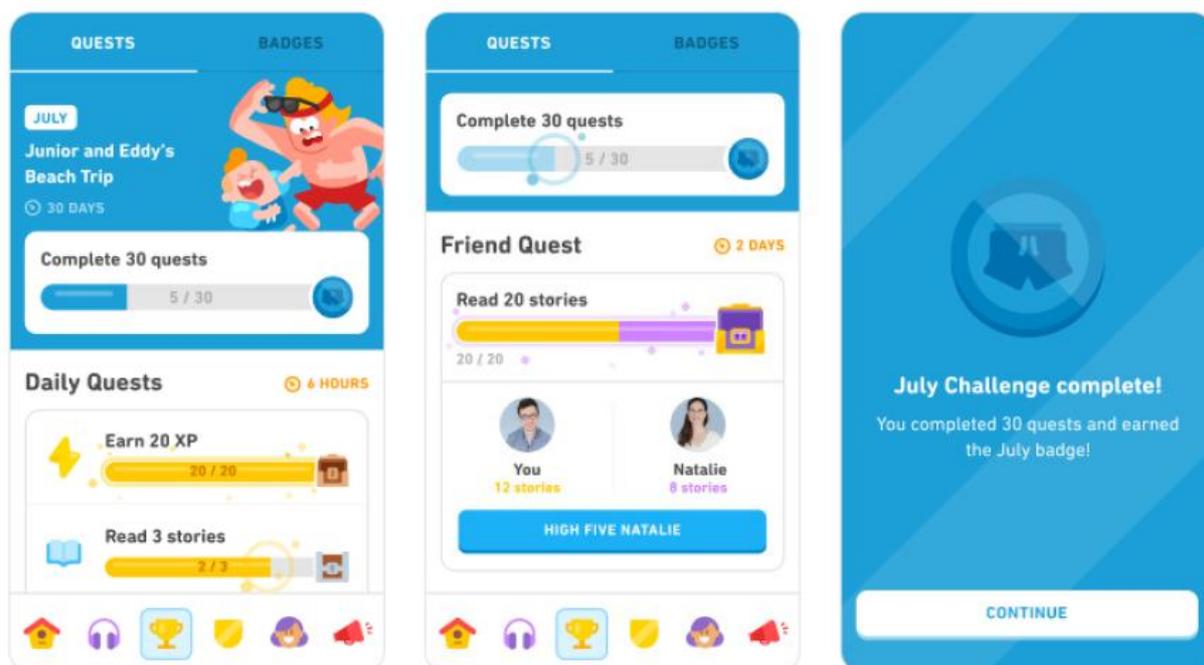
Several new features that have come out of A/B testing are expected to launch in the coming months, and I'm excited to preview two of them for you here. The first feature, **Quests tab**, is designed to increase user engagement and the second feature, **Side Quests**, is designed to increase revenue. I should mention that since Duolingo is constantly evolving through experimentation, the screenshots shown below may differ from what you actually see in the app.

### Quests Tab

The Quests tab introduces a home for a fun, unified system of challenges called Quests, which motivate our learners to take a variety of actions. The tab consists of:

- **Daily Quests** that gamify the daily actions of learners by providing a variable set of recommended tasks that change each day (e.g., finish two perfect lessons). By completing each quest, learners earn gems.
- A **Friends Quest**, which pairs you with a friend to complete a shared goal. These also foster additional social interactions like nudges and congratulatory completion messages.
- An overarching **Monthly Goal** that provides learners a sense of longer-term progress, with a collectible themed badge upon completion.

Here's what the Quests tab looks like:

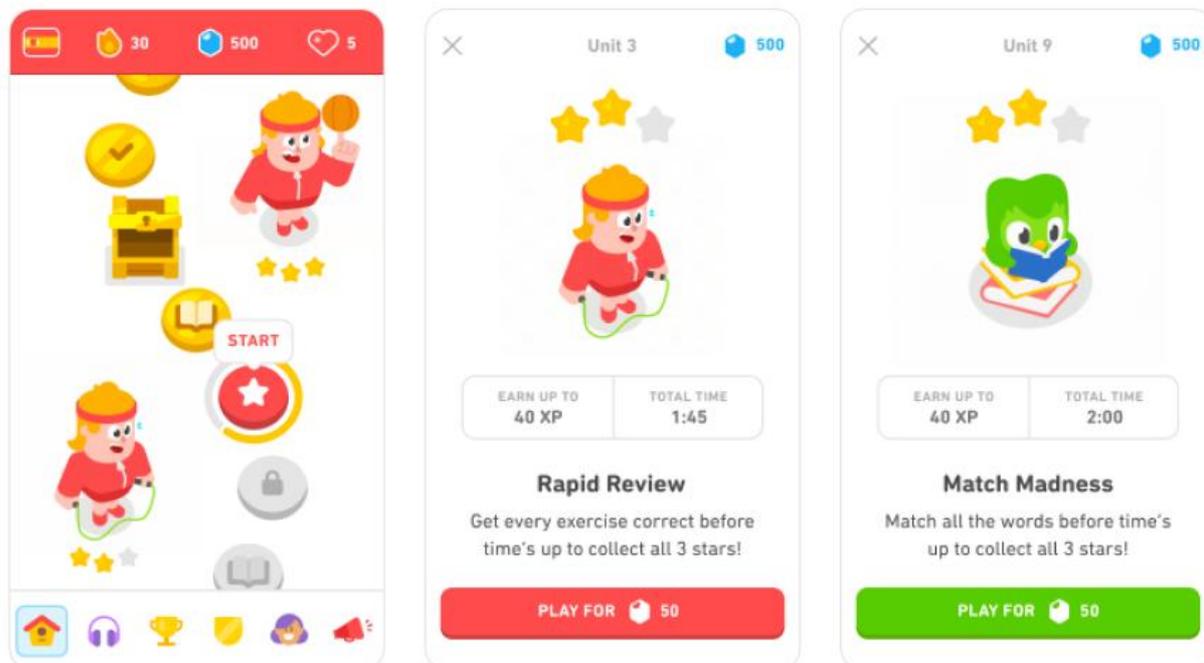


To get to the point of launching this tab to all learners, we've A/B tested every component of it, including the difficulty and type of each quest, the tab layout, etc. For this feature, we're primarily hoping to increase DAUs and time spent learning, two measures of engagement, and our results so far are very positive.

## Side Quests

As I mentioned in our previous shareholder letter, our new home screen is a **linear progression path** that unlocks characters as the learner progresses through their course. **Side Quests** are optional, fun learning challenges that learners can enter by tapping on the characters alongside the path and spending their gems. Since Side Quests cost gems, and gems can either be earned through Duolingo usage (e.g., by completing Daily Quests) or purchased via in-app purchases (IAPs), this feature aims to increase revenue by encouraging more people to buy gems.

Here's what Side Quests will look like:



## DET Update

The Duolingo English Test (DET) is our second largest product, and, like our language learning app, also continues to have strong momentum. In Q2, DET revenue grew 66% year over year. DET revenue grows as more people take the test, which in turn happens as more institutions accept our test results. This year, we're focused on expanding acceptance in institutions in four strategically important countries: US, Canada, UK, and Australia. As of the end of Q2, over 3,700 higher education programs accept the DET.

In a future shareholder letter, we'll provide a deeper look into our DET business, its track record of success, and growth opportunities.

## China Reinstatement

I'm pleased to report that we were reinstated on the Chinese app stores at the end of May 2022. As you may recall, we were among many apps that were removed from the app stores in China in Q3 2021, so, while existing users were able to continue using Duolingo, new users were not able to download it.

Since the reinstatement, we've seen our China DAUs nearly double as of June 30, 2022, returning to the levels we had before the removal. I should mention that while China is an important opportunity for us, it's still a small portion of our business, representing about 1-2% of DAUs and MAUs, and less than 1% of paying subscribers in Q2.

## Join us for Duocon on August 26th

Duocon, our annual conference for language enthusiasts and learners around the world, is scheduled for Friday, August 26th and will be streamed live. Last year, over 130,000 Duolingo enthusiasts watched Duocon live. You can learn more about this year's program and speaker lineup at [duolingo.com/duocon](https://duolingo.com/duocon). I hope you can join us!

In closing, I'd like to thank the entire team for continuing to strive for excellence and for driving outstanding results. Looking ahead to the rest of 2022 and beyond, we're as energized as ever to pursue exciting opportunities, and we look forward to reporting on our progress.

Until next time, keep up those lessons!



A handwritten signature in black ink, appearing to read 'Luis von Ahn'.

**Luis von Ahn**  
CEO and Co-Founder

# financial performance and outlook

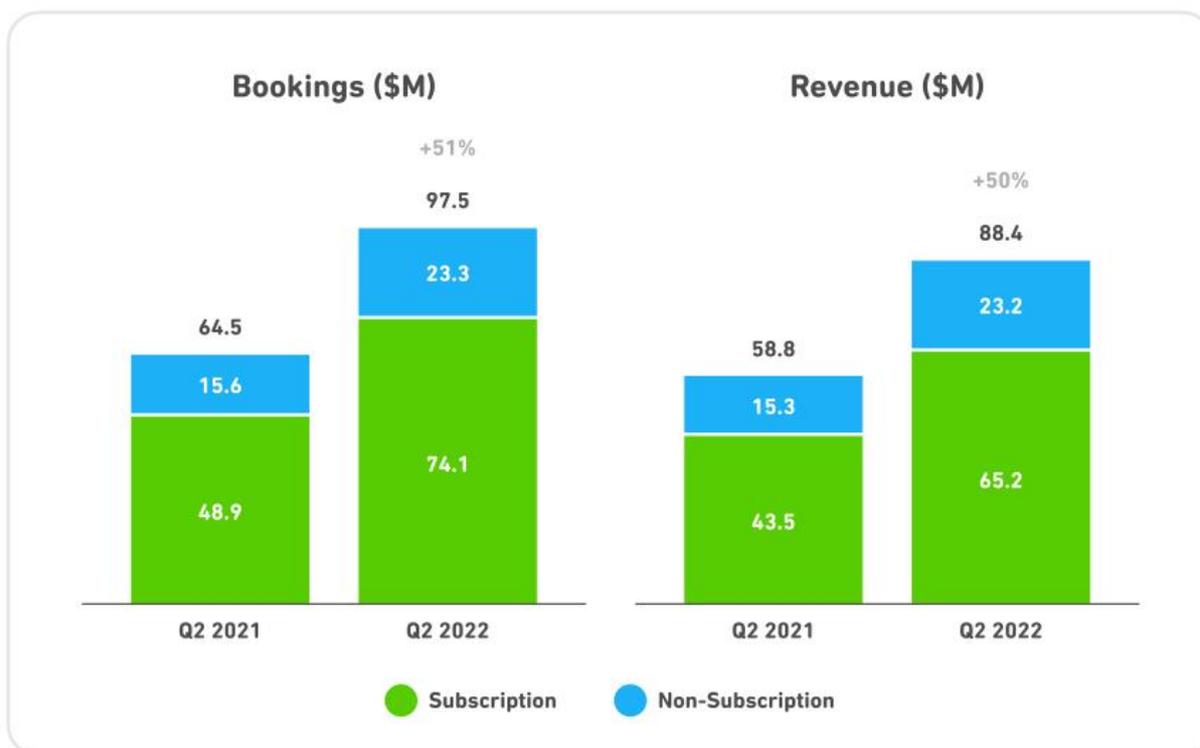
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## Summary of Financial and Operating Metrics

(in millions)	Q2 2021	Q2 2022	YoY
<b>Operating Metrics</b>			
Monthly active users (MAUs)	37.9	49.5	31%
Daily active users (DAUs)	9.1	13.2	44%
Paid subscribers (period end)	1.9	3.3	71%
Total bookings	\$64.5	\$97.5	51%
Subscription bookings	\$48.9	\$74.1	51%
<b>GAAP Financial Metrics</b>			
Revenues	\$58.8	\$88.4	50%
Gross profit	\$42.7	\$64.5	51%
Gross margin (%)	72.6%	73.0%	40 bps
Net loss	(\$0.2)	(\$15.0)	—
Net cash from operating activities	(\$0.9)	\$12.7	—
<b>Non-GAAP Financial Metrics (1)</b>			
Adjusted EBITDA	\$3.7	\$4.2	13%
Free cash flow	\$2.1	\$9.9	371%

(1) Please refer to the Appendix at the end of this letter for a reconciliation of these non-GAAP financial measures to the most directly comparable GAAP financial measure.

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



In the second quarter, total bookings were \$97.5 million, growing 51% year over year. Subscription bookings grew 51% year over year to \$74.1 million, driven by the growth in first-time and renewing paid subscribers, and the continued shift to annual plan subscriptions.

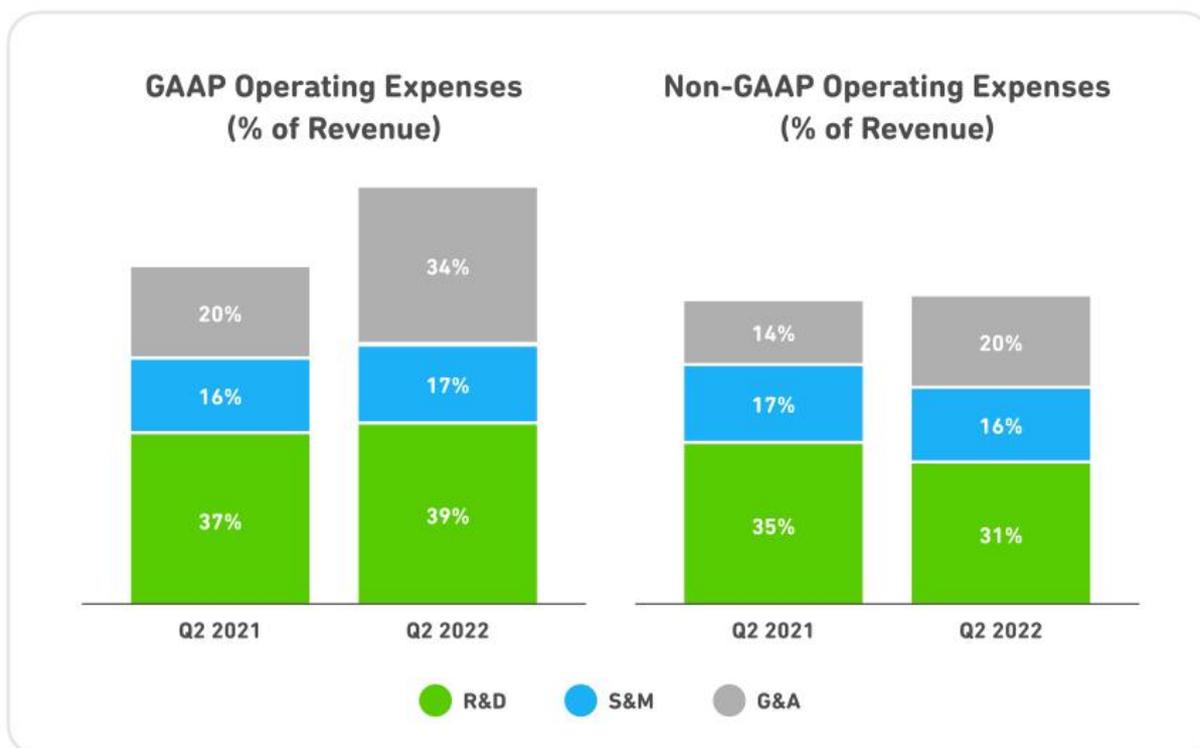
In the second quarter, revenues were \$88.4 million, growing 50% year over year. Total revenue growth was largely driven by growth in subscription revenue, which in turn was driven by the increase in the average number of paid subscribers during the period.

The table below provides revenues by product type:

(in millions)	Q2 2021	Q2 2022	Change	% Change
Subscription	\$43.5	\$65.2	\$21.7	50%
Advertising	9.1	11.2	2.2	24%
Duolingo English Test	4.8	8.0	3.2	66%
Other *	1.4	3.9	2.5	179%
<b>Total revenues</b>	<b>\$58.8</b>	<b>\$88.4</b>	<b>\$29.6</b>	<b>50%</b>

Gross margin increased over 40 basis points year over year to 73.0%, primarily driven by higher subscription margins, which were offset by lower margins in advertising and DET.

\*Other primarily includes in-app sales of virtual goods.

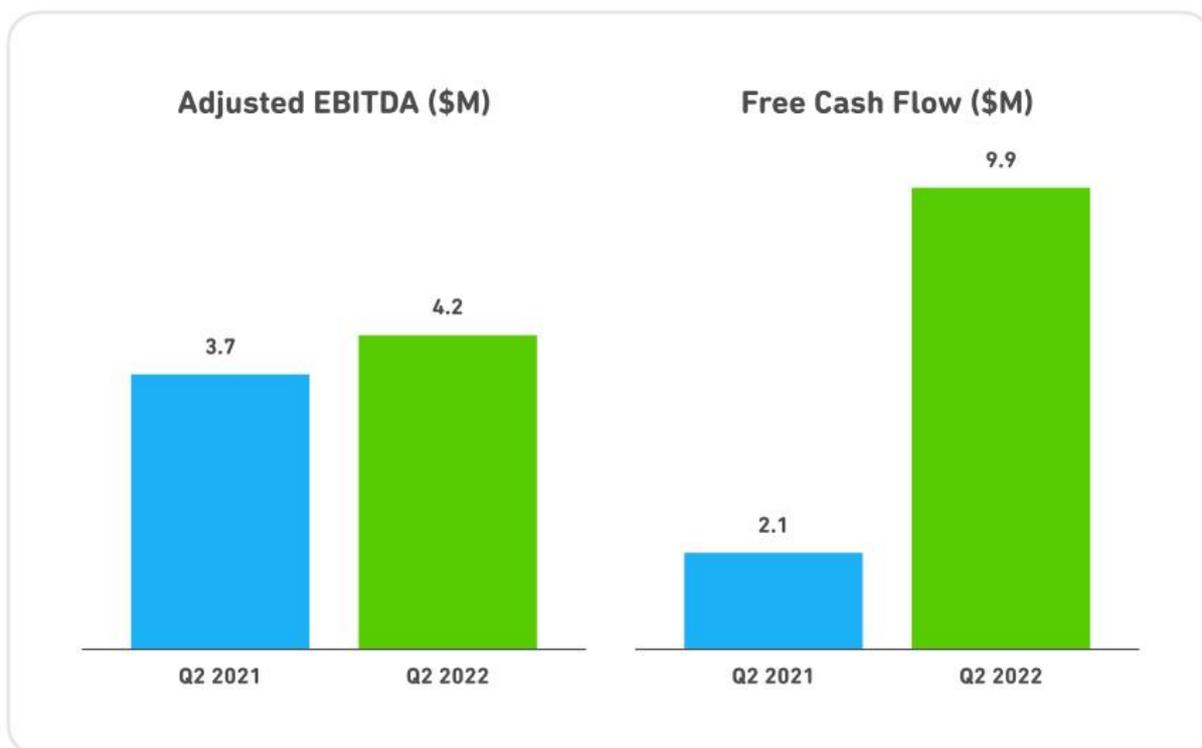


We report three categories of operating expenses: Research and Development (R&D), Sales and Marketing (S&M), and General and Administrative (G&A). Non-GAAP operating expenses† represent GAAP expenses adjusted for depreciation, amortization, stock-based compensation, and IPO and public company costs, as well as other expenses. In Q2 2022, we recognized \$18.1 million in stock-based compensation, roughly half of which was related to founder equity awards.

GAAP R&D expense increased from 37% to 39% of revenue year over year. In absolute dollar terms, GAAP R&D increased by \$12.3 million or 56% year over year, to \$34.2 million, primarily due to our growth in headcount. On a non-GAAP basis, R&D expenses decreased from 35% to 31% of revenue year over year. The absolute dollar increase in non-GAAP R&D expense was \$7.0 million, or 34% growth. We continue to prioritize product improvements in order to drive organic user growth and engagement. We believe these investments in R&D are also driving higher free-to-paid conversion and stronger retention of our subscribers.

GAAP S&M expense increased from 16% to 17% of revenue year over year. In absolute dollar terms, GAAP S&M expense increased by \$5.7 million, or 59% over the prior year quarter, to \$15.3 million, as we added marketing headcount and spent strategically on marketing in priority markets to drive awareness. On a non-GAAP basis, S&M expenses declined from 17% to 16% of revenue year over year. In absolute dollar terms, non-GAAP S&M expense increased \$4.4 million, or 44%, over the prior year quarter.

GAAP G&A expense increased from 20% to 34% of revenue year over year. In absolute dollar terms, GAAP G&A expense increased \$18.5 million, or 159% to \$30.1 million, driven primarily by stock-based compensation related to founder equity awards, higher headcount and facilities expenses as we expanded our office footprint, and the additional costs associated with becoming a public company. On a non-GAAP basis, G&A expenses increased from 14% to 20% of revenue year over year. In absolute dollar terms, non-GAAP G&A expense increased \$9.4 million or 111%, due to the reasons described above with the exception of stock-based compensation.



Adjusted EBITDA† increased by \$0.5 million to \$4.2 million in the second quarter compared to the prior year quarter. The increase was primarily driven by revenue growth and improved gross margin.

During the second quarter, we generated \$9.9 million in free cash flow†, an increase of \$7.8 million over the prior year quarter, driven by an increase in cash from operations. As a reminder, we define free cash flow as net cash provided by operating activities, reduced by purchases of property and equipment and capitalized software development costs, and increased by IPO and public company costs, taxes paid related to stock-based compensation equity awards and other costs, as we believe they are not indicative of future liquidity.

†Please refer to the Appendix at the end of this letter for a reconciliation of these non-GAAP financial measures to the most directly comparable GAAP financial measure.

## 3Q22 and FY22 Guidance

Duolingo is providing the following guidance for the third quarter and the full year ending December 31, 2022.

(in millions)	Q3 2022	FY 2022
<b>Bookings</b>	<b>\$94 - 97</b>	<b>\$404 - 410</b>
YoY Bookings Growth	29% - 33%	37% - 39%
<b>Revenues</b>	<b>\$93 - 96</b>	<b>\$361 - 367</b>
YoY Revenue Growth	46% - 51%	44% - 46%
<b>Adjusted EBITDA</b>	<b>\$(4.5) - (1.5)</b>	<b>\$4 - 7</b>

With regards to the Non-GAAP Adjusted EBITDA outlook provided above, a reconciliation to GAAP net loss, the most directly comparable financial measure presented in accordance with GAAP, has not been provided as the quantification of certain items included in the calculation of GAAP net loss cannot be calculated or predicted at this time without unreasonable efforts. For example, the non-GAAP adjustment for stock-based compensation expenses related to equity awards requires additional inputs such as number of shares granted and market price that are not currently ascertainable, and the non-GAAP adjustment for certain legal, tax and regulatory reserves and expenses depends on the timing and magnitude of these expenses and cannot be accurately forecasted. For the same reasons, we are unable to address the probable significance of the unavailable information, which could have a potentially unpredictable, and potentially significant, impact on our future GAAP financial results.

## Video Webcast

Duolingo will host a video webcast to discuss its quarterly results today, August 4, 2022, at 5:30 p.m. ET. This live webcast and related materials will be publicly available and can be accessed at [investors.duolingo.com](https://investors.duolingo.com). A replay will be available on the Investor Relations website two hours following completion of the webcast and will remain available for a period of one year.

## About Duolingo

Duolingo is the leading mobile learning platform globally. Its flagship app has organically become the world's most popular way to learn languages and the top-grossing app in the Education category on both Google Play and the Apple App Store. With technology at the core of everything it does, Duolingo has consistently invested to provide learners a fun, engaging, and effective learning experience while remaining committed to its mission to develop the best education in the world and make it universally available.

## Definitions

**Subscription Bookings and Total Bookings.** Subscription bookings represent the amounts we receive from a purchase of a subscription to Super Duolingo (formerly called Duolingo Plus). Total bookings represent the amounts we receive from a purchase of a subscription to Super Duolingo, a purchase of a Duolingo English Test, an in-app purchase for a virtual good, and from advertising networks for advertisements served to our users. We believe bookings provide an indication of trends in our operating results, including cash flows, that are not necessarily reflected in our revenues because we recognize subscription revenues ratably over the lifetime of a subscription, which is generally from one to twelve months.

**Monthly Active Users (MAUs).** MAUs are defined as unique Duolingo users who engage with our mobile language learning application or the language learning section of our website each month. MAUs are reported for a measurement period by taking the average of the MAUs for each calendar month in that measurement period. MAUs are a measure of the size of our global active user community on Duolingo.

**Daily Active Users (DAUs).** DAUs are defined as unique Duolingo users who engage with our mobile language learning application or the language learning section of our website each calendar day. DAUs are reported for a measurement period by taking the average of the DAUs for each day in that measurement period. DAUs are a measure of the consistent engagement of our global user community on Duolingo.

Throughout this document, the measurement period for MAUs and DAUs is the three months ended June 30, 2022 and the same period in the prior year where applicable, and the analysis of results is based on those periods.

**Paid Subscribers.** Paid subscribers are defined as users who pay for access to Super Duolingo, including subscribers who pay for a family plan, and had an active subscription as of the end of the measurement period. Each unique user account is treated as a single paid subscriber regardless of whether such user purchases multiple subscriptions, and the count of paid subscribers does not include users who are currently on a free trial, or who are non-paying members of a family plan.

## Non-GAAP Financial Measures

We use certain non-GAAP financial measures to supplement our consolidated financial statements, which are presented in accordance with GAAP. These non-GAAP financial measures include Adjusted EBITDA. Please refer to the definitions and reconciliation at the end of this letter. We use these non-GAAP financial measures for financial and operational decision-making and as a means to evaluate period-to-period comparisons. By excluding certain items that may not be indicative of our recurring core operating results, we believe that Adjusted EBITDA provides meaningful supplemental information regarding our performance. Accordingly, we believe these non-GAAP financial measures are useful to investors and others because they allow for additional information with respect to financial measures used by management in its financial and operational decision-making and they may be used by our institutional investors and the analyst community to help them analyze the health of our business. However, there are a number of limitations related to the use of non-GAAP financial measures, and these non-GAAP measures should be considered in addition to, not as a substitute for or in isolation from, our financial results prepared in accordance with GAAP. Other companies, including companies in our industry, may calculate these non-GAAP financial measures differently or not at all, which reduces their usefulness as comparative measures.

## Forward-Looking Statements

This Shareholder Letter contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. We intend such forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in Section 27A of the Securities Act of 1933, as amended (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). All statements other than statements of historical facts contained in this letter, including without limitation, statements regarding our business model and strategic plans and our financial outlook for the third quarter and fiscal year 2022 are forward-looking statements. Without limiting the generality of the foregoing, you can identify forward-looking statements because they contain words such as "may," "will," "shall," "should," "expects," "plans," "anticipates," "could," "intends," "target," "projects," "contemplates," "believes," "estimates," "predicts," "potential," "goal," "objective," "seeks," or "continue" or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans, or intentions. Such forward-looking statements are subject to a number of known and unknown risks, uncertainties and assumptions, and actual results may differ materially from those expressed or implied in the forward-looking statements due to various factors, including, but not limited to: our ability to retain and grow our users and sustain their engagement with our products; competition in the online language learning industry; our limited operating history; our ability to achieve profitability; our ability to manage our growth and operate at such scale; the success of our investments; our reliance on third-party platforms to store and distribute our products and collect revenue; our reliance on third-party hosting and cloud computing providers; our ability to compete for advertisements; acceptance by educational organizations of technology-based education; our ability to access, collect, and use personal data about our users and payers, and to comply with applicable data privacy laws; potential intellectual property-related litigation and proceedings, our ability adequately obtain, protect and maintain our intellectual property rights; and the other important factors more fully detailed under the caption "Risk Factors" in our Annual report on Form 10-K for the fiscal year ended December 31, 2021, as any such factors may be updated from time to time, including in our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2022 and in our other filings with the SEC, accessible on the SEC's website at [www.sec.gov](http://www.sec.gov) and the Company's Investor Relations website at [investors.duolingo.com](http://investors.duolingo.com). All forward-looking statements speak only as of the date of this letter and, except as required by applicable law, we have no obligation to update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

## Website Information

We routinely post important information for investors on the Investor Relations section of our website, [investors.duolingo.com](http://investors.duolingo.com), and also from time to time may use social media channels, including our Twitter account [twitter.com/duolingo](https://twitter.com/duolingo) and our LinkedIn account [linkedin.com/company/duolingo](https://linkedin.com/company/duolingo), as an additional means of disclosing public information to investors, the media and others interested in us. It is possible that certain information we post on our website and on social media could be deemed to be material information, and we encourage investors, the media and others interested in us to review the business and financial information we post on our website and on the social media channels identified above, in addition to following our press releases, SEC filings, public conference calls, presentations and webcasts. The information contained on, or that may be accessed through, our website and our social media channels is not incorporated by reference into, and is not a part of, this document.

**DUOLINGO INC. AND SUBSIDIARIES**  
**UNAUDITED CONDENSED CONSOLIDATED BALANCE SHEETS**

<b>(in thousands)</b>	December 31, 2021	June 30, 2022
Cash and cash equivalents	\$553,922	\$591,160
Accounts receivable	33,163	28,209
Deferred cost of revenues	24,219	29,218
Prepaid expenses and other current assets	7,967	6,563
Non-current assets	42,040	45,900
<b>Total Assets</b>	<b>\$661,311</b>	<b>\$701,050</b>
Accounts payable	\$7,818	\$1,504
Deferred revenues	98,267	128,194
Other current liabilities	13,046	17,628
Long-term liabilities	29,124	25,505
<b>Total liabilities</b>	<b>148,255</b>	<b>172,831</b>
Total stockholders' equity	513,056	528,219
<b>Total liabilities, convertible preferred stock and stockholders' equity</b>	<b>\$661,311</b>	<b>\$701,050</b>

**DUOLINGO INC. AND SUBSIDIARIES**  
**UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF NET LOSS AND COMPREHENSIVE LOSS**

<b>(in thousands)</b>	Three Months Ended June 30,	
	2021	2022
Revenues	\$58,803	\$88,386
Cost of revenues	16,137	23,869
Gross profit	42,666	64,517
Operating expenses:		
Research and development	21,940	34,217
Sales and marketing	9,619	15,277
General and administrative	11,585	30,057
Total operating expenses	43,144	79,551
Loss from operations	(478)	(15,034)
Other income (expense), net	303	130
Loss before provision for income taxes	(175)	(14,904)
Provision for income taxes	1	141
<b>Net loss and comprehensive loss</b>	<b>\$(176)</b>	<b>\$(15,045)</b>

**DUOLINGO INC. AND SUBSIDIARIES**  
**UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**

<b>(in thousands)</b>	<b>Six Months Ended June 30,</b>	
	<b>2021</b>	<b>2022</b>
Net loss	\$(13,648)	\$(27,199)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation and amortization	1,236	1,944
Stock-based compensation	5,458	32,700
Changes in assets and liabilities	11,181	25,844
Net cash provided by operating activities	<u>4,227</u>	<u>33,289</u>
Net cash used for investing activities	<u>(3,634)</u>	<u>(5,713)</u>
Net cash provided by (used by) financing activities	<u>(6,447)</u>	<u>9,662</u>
Net increase in cash and cash equivalents	(5,854)	37,238
Cash and cash equivalents - Beginning of period	120,490	553,922
<b>Cash and cash equivalents - End of period</b>	<b><u>\$114,636</u></b>	<b><u>\$591,160</u></b>

# appendix

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## Reconciliation: Adjusted EBITDA

Adjusted EBITDA is defined as net loss excluding interest (income) expense, net, income tax provision, depreciation and amortization, Initial Public Offering ("IPO") and public company costs, stock-based compensation expenses related to equity awards, tender offer-related costs and other expenses. Adjusted EBITDA is used by management to evaluate the financial performance of our business and we present Adjusted EBITDA because we believe that it is helpful in highlighting trends in our operating results and that it is frequently used by analysts, investors and other interested parties to evaluate companies in our industry. The following table presents a reconciliation of our net loss, the most directly comparable financial measure presented in accordance with GAAP, to Adjusted EBITDA.

(in thousands)	Q2 2021	Q2 2022
<b>Net Income (Loss)</b>	<b>\$(176)</b>	<b>\$(15,045)</b>
Less: Interest Income	(1)	(669)
Plus: Provision for Income Taxes	1	141
Plus: Depreciation & Amortization	636	1,170
Plus: IPO and Public Company Costs (1)	1,213	107
Plus: Stock-based compensation expenses related to equity awards (2)	2,907	18,494
Plus: Other expenses (3)	(878)	-
<b>Adjusted EBITDA</b>	<b>\$3,702</b>	<b>\$4,198</b>

## Reconciliation: Free Cash Flow

Free cash flow represents net cash provided by operating activities, reduced by purchases of property and equipment, capitalized software development costs, and increased by IPO and public company costs, taxes paid related to stock-based compensation equity awards and other costs, as we believe they are not indicative of future liquidity. We believe that free cash flow is a measure of liquidity that provides useful information to our management, investors and others in understanding and evaluating the strength of our liquidity and future ability to generate cash that can be used for strategic opportunities or investing in our business. The following table presents a reconciliation of net cash provided by operating activities, the most directly comparable financial measure calculated in accordance with GAAP, to free cash flow.

(in thousands)	Q2 2021	Q2 2022
<b>Net cash provided by operating activities</b>	<b>\$(896)</b>	<b>\$12,662</b>
Less: Capitalized Software Development Costs	(717)	(1,405)
Less: Purchases of Property and Equipment	(1,139)	(1,864)
Plus: IPO and Public Company Costs (1)	1,213	107
Plus: Taxes Paid Related to Stock-Based Compensation on Equity Awards (4)	-	380
Plus: Other (3)	3,643	-
<b>Free Cash Flow</b>	<b>\$2,104</b>	<b>\$9,880</b>

(1) IPO and public company costs include costs associated with IPO readiness incurred in 2021 and costs associated with the establishment of our public company structure and processes, including consultant costs, a one-time fee associated with the set-up of our initial proxy statement, and fees paid to consultants and Deloitte for work in connection with remediation of the material weakness disclosed in our Annual Report on Form 10-K.

(2) In addition to stock-compensation expense, this includes costs incurred related to taxes paid on equity transactions.

(3) Represents one-time cash awards to Duolingo contributors under our non-employee volunteer program included within Sales and marketing expenses within our Unaudited Condensed Consolidated Statements of Operations and Comprehensive Loss.

(4) Includes costs incurred related to taxes paid on equity transactions.

### Reconciliation: GAAP to Non-GAAP Operating Expense

(in thousands)	Q2 2021	Q2 2022
<b>Total GAAP Operating Expense</b>	<b>\$43,144</b>	<b>\$79,551</b>
Less: Depreciation & Amortization	(636)	(897)
Less: Stock-based Compensation	(2,907)	(18,104)
Less: Other Adjustments	(335)	(487)
<b>Non-GAAP Operating Expense</b>	<b>\$39,266</b>	<b>\$60,063</b>

### Reconciliation: GAAP to Non-GAAP R&D Expense

(in thousands)	Q2 2021	Q2 2022
<b>Total GAAP R&amp;D Expense</b>	<b>\$21,940</b>	<b>\$34,217</b>
Less: Depreciation & Amortization	(34)	(463)
Less: Stock-based Compensation	(1,105)	(5,773)
Less: Other Adjustments	-	(147)
<b>Non-GAAP R&amp;D Expense</b>	<b>\$20,801</b>	<b>\$27,834</b>

### Reconciliation: GAAP to Non-GAAP S&M Expense

(in thousands)	Q2 2021	Q2 2022
<b>Total GAAP S&amp;M Expense</b>	<b>\$9,619</b>	<b>\$15,277</b>
Less: Depreciation & Amortization	(152)	(268)
Less: Stock-based Compensation	(72)	(595)
Less: Other Adjustments	638	(9)
<b>Non-GAAP S&amp;M Expense</b>	<b>\$10,033</b>	<b>\$14,405</b>

### Reconciliation: GAAP to Non-GAAP G&A Expense

(in thousands)	Q2 2021	Q2 2022
<b>Total GAAP G&amp;A Expense</b>	<b>\$11,585</b>	<b>\$30,057</b>
Less: Depreciation & Amortization	(450)	(166)
Less: Stock-based Compensation	(1,730)	(11,736)
Less: Other Adjustments	(973)	(331)
<b>Non-GAAP G&amp;A Expense</b>	<b>\$8,432</b>	<b>\$17,824</b>

## Contacts

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