



and capital expenditures are forward-looking statements. Without limiting the generality of the foregoing, you can identify forward-looking statements because they contain words such as “may,” “could,” “should,” “expect,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “contemplate,” “believe,” “estimate,” “predict,” “potential,” “goal,” “objective,” “seek,” “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 neither promises nor guarantees, but involve a number of known and unknown risks, uncertainties and assumptions that may cause our actual results, performance or achievements to 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; our competition in the online language learning industry; our limited operating history; our ability to maintain profitability; our ability to manage our growth and operate at such scale; the success of our investments; our ability to accurately predict our quarterly operating results and other operating metrics; our ability to accurately measure our user metrics and other operating metrics; 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; our acceptance by educational organizations of technology-based education; changes in our business and macroeconomic conditions; and those identified in Part I, Item 2.

Management’s Discussion and Analysis of Financial Condition and Results of Operations and Part II, Item 1A. Our Risk Factors are in this Quarterly Report on Form 10-Q, and in Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations are in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023 (the Annual Report on Form 10-K). We caution you that the foregoing list does not contain all of the forward-looking statements made in this Quarterly Report on Form 10-Q. You should not rely upon forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this Quarterly Report on Form 10-Q primarily on our current expectations, estimates, forecasts, and projections about future events and trends that we believe may affect our business, financial condition, results of operations and prospects. These statements are based upon information available to us as of the date of this Quarterly Report on Form 10-Q and, although we believe that we have a reasonable basis for each forward-looking statement contained in this Quarterly Report on Form 10-Q, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. 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 at all. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this Quarterly Report on Form 10-Q. The results, events, and circumstances reflected in the forward-looking statements may not be achieved or occur, and actual results, events, or circumstances could differ materially from those described in the forward-looking statements. You should not place undue reliance on our forward-looking statements. The forward-looking statements made in this Quarterly Report on Form 10-Q relate only to events as of the date on which the statements are made. While we may elect to update such forward-looking statements at some point in the future, unless required by applicable law, we disclaim any obligation to do so, even if subsequent events cause our views to change. You should read this Quarterly Report on Form 10-Q and the documents that we reference in this Quarterly Report on Form 10-Q completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in this Quarterly Report on Form 10-Q by these cautionary statements. Unless the context otherwise requires, all references in this Quarterly Report on Form 10-Q to Duolingo, the Company, we, us, or we and our subsidiaries, or similar terms refer to Duolingo, Inc. and its subsidiaries. Special Note Regarding Key Operating Metrics We manage our business by tracking several operating metrics, including monthly active users (MAUs), daily active users (DAUs), paid subscribers, subscription bookings, and total bookings. We believe each of these operating metrics provides useful information to investors and others. For information concerning these metrics as measured by us, see Part I, Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations - Key Operating Metrics and Non-GAAP Financial Measures. 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. We believe that these metrics are reasonable estimates of our user base for the applicable period of measurement, and that the methodologies we employ and update from time-to-time to create these metrics are reasonable bases to identify trends in user behavior. Because we update the methodologies we employ to create metrics, our operating metrics may not be comparable to those in prior periods. See the section titled “Our user metrics and other operating metrics are subject to inherent challenges in measurement, and real or perceived inaccuracies in those metrics may negatively affect our reputation and our business.” Other companies, including companies in our industry, may calculate these metrics differently. Risk Factors Summary The following is a summary of the principal risks that could materially adversely affect our business, financial condition, and results of operations, all of which are more fully described in Part II, Item 1A. Our Risk Factors. This summary should be read in conjunction with Part II, Item 1A. Our Risk Factors and should not be relied upon as an exhaustive summary of the material risks facing our business. If we fail to keep existing users or add new users, or if our users decrease their level of engagement with our products or do not convert to or remain paying users, our revenue, financial results and business may be significantly harmed. The online language learning industry is highly competitive, with low switching costs and a consistent stream of new products and entrants, and innovation by our competitors may disrupt our business. Changes to our existing brand and products, or the introduction of a new brand or products, could fail to attract or keep users or generate revenue and profits. We have had operating losses in the past and we may not be able to achieve or maintain profitability in the future. Our costs are continuing to grow, and some of our investments have the effect of reducing our operating margin and profitability. If our investments are not successful, our business and financial performance could be harmed. Our quarterly operating results and other operating metrics may fluctuate from quarter to quarter, which makes these metrics difficult to predict. Our user metrics and other operating metrics are subject to inherent challenges in measurement, and real or perceived inaccuracies in those metrics may negatively affect our reputation and our business. We rely on third-party platforms such as the Apple App Store and the Google Play Store to distribute our products and collect payments. If we are unable to maintain a good relationship with such platform providers, if their terms and conditions or pricing changed to our detriment, if we violate, or if a platform provider believes that we have violated, the terms and conditions of its platform, or if any of these platforms loses market share or falls out of favor or is unavailable for a prolonged period of time, our business will suffer. We rely on third-party hosting and cloud computing providers, like Amazon Web Services (AWS) and Google Cloud, to operate certain aspects of our business. A significant portion of our product traffic is hosted by a limited number of vendors, and any failure, disruption or significant interruption in our network or hosting and cloud services could adversely impact our operations and harm our business. If we are not able to maintain the value and reputation of our brand, our ability to expand our base of users may be impaired, and our business and financial results may be harmed. Our business is subject to complex and evolving U.S. and international laws and regulations. Many of these laws and regulations are subject to change and uncertain interpretation, and could result in claims, changes to our business practices, monetary penalties, increased cost of operations, or declines in user growth or engagement, or otherwise harm our business. Our success depends, in part, on our ability to access, protect, collect, and use personal data, and our failure to comply with the varying and rapidly-evolving regulatory framework on privacy and data protection across jurisdictions could result in claims or other forms of liability, increased costs of operations, reputational harm, or decline in user growth or engagement, or otherwise have a material adverse effect on our business. Regulatory and legislative developments on the use of artificial intelligence (AI) and machine learning could adversely affect our use of such technologies in our products and services. From time to time, we may be party to intellectual property-related litigation and proceedings that are expensive and time consuming to defend, and, if resolved adversely, could materially adversely impact our business, financial condition and results of operations. We may fail to adequately obtain, protect and maintain our intellectual property rights or prevent third parties from making unauthorized use of such rights. The dual class structure of our common stock has the effect of concentrating voting control with those stockholders who held our capital stock prior to the listing of our Class A common stock on the Nasdaq Global Select Market, including our directors, executive officers, and 5% stockholders and their respective affiliates, who hold in the aggregate 78.8% of the voting power of our outstanding capital stock as of September 30, 2024. This ownership will limit or preclude your ability to influence corporate matters, including the election of directors, amendments of our organizational documents, and any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction requiring stockholder approval. Part I Financial Information Item 1. Financial Statements (Unaudited) DUOLINGO, INC. AND SUBSIDIARIES UNAUDITED CONDENSED CONSOLIDATED BALANCE SHEETS (Amounts in thousands, except par value amounts) September 30, 2024 December 31, 2023 ASSETS Current assets Cash and cash equivalents \$854,409 \$747,610 Short-term investments 26,354 Accounts receivable 94,215 88,975 Deferred cost of revenues 67,329 53,931 Prepaid expenses and other current assets 16,130 7,282 Total current assets 1,058,437 897,798 Operating lease right-of-use assets 48,624 19,103 Intangible assets, net 21,900 15,995 Long-term investments 55,328 Property and equipment, net 19,495 11,792 Goodwill 10,538 4,050 Restricted cash 2,735 2,735 Deferred tax assets, net 835 766 Other assets 1,674 1,718 Total assets \$1,219,549 \$953,957 LIABILITIES AND STOCKHOLDERS’ EQUITY Current liabilities Deferred revenues \$310,603 \$249,192 Accounts payable 3,649 2,447 Income tax payable 361 792 Accrued expenses and other current liabilities 27,845 24,931 Total current liabilities 342,133 277,362 Long-term obligation under operating leases 54,651 21,094 Deferred tax liabilities, net 312 Total liabilities 397,096 298,456 Commitments and contingencies (Note 11) Stockholders’ equity Class A common stock, \$0.0001 par value; 2,000,000 shares authorized as of September 30, 2024 and December 31, 2023; 37,857 and 36,311 issued and outstanding at September 30, 2024 and December 31, 2023, respectively Class B common stock, \$0.0001 par value; 30,000 shares authorized as of September 30, 2024 and December 31, 2023; 6,087 and 6,215 issued and outstanding at September 30, 2024 and December 31, 2023, respectively 4.4 Additional paid-in capital 962,203 869,918 Accumulated deficit (139,754) (214,421) Total stockholders’ equity 822,453 655,501 Total liabilities and stockholders’ equities 1,219,549 \$953,957 See accompanying notes to the Unaudited Condensed Consolidated Financial Statements. DUOLINGO, INC. AND SUBSIDIARIES UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (Amounts in thousands, except per share amounts) Three Months Ended September 30, 2024 2023 2024 2023 Revenues \$192,594 \$137,624 \$538,474 \$380,124 Cost of revenues 52,180 36,254 144,720 101,534 Gross profit 140,414 101,370 393,754 278,590 Operating expenses: Research and development 62,878 50,305 168,903 144,096 Sales and marketing 25,574 22,335 65,679 56,670 General and administrative 38,388 33,400 110,459 95,878 Total operating expenses 126,840 106,040 345,041 296,644 Income (loss) from operations 13,574 (4,670) 48,713 (18,054) Other income (expense), net 569 (1,023) (759) (1,109) Income (loss) before interest income and income taxes 14,143 (5,693) 47,954 (19,163) Interest income 1,246 8,625 32,000 21,807 Income before income taxes 25,389 2,932 79,954 2,644 Provision (benefit) for income taxes 2,029 125 5,287 (1,306) Net income and comprehensive income 23,360 \$2,807 \$74,667 \$3,950 Net income per share attributable to Class A and Class B common stockholders, basic \$0.53 0.07 \$1.73 0.10 Net income per share attributable to Class A and Class B common stockholders, diluted \$0.49 0.06 \$1.57 0.09 See accompanying notes to the Unaudited Condensed Consolidated Financial Statements. DUOLINGO, INC. AND SUBSIDIARIES UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS’ EQUITY THREE MONTHS ENDED SEPTEMBER 30, 2024 AND 2023 (Amounts in thousands) Common Stock Shares Amount Additional Paid-In Capital Accumulated Deficit Total BALANCE July 1, 2023 341,531 44 \$825,746 \$(229,345) \$596,405 A Stock-based compensation expense \$25,432 A \$25,432 Release of performance stock units 180 A \$ A A A Taxes paid related to net-share settlement of share-based compensation awards (84) A (11,482) A (11,482) Stock options exercised 152 A 1,657 A 1,657 Release of restricted stock units 193 A A A A Net income A A A A 2,807 A 2,807 BALANCE September 30, 2023 341,972 44 \$841,353 \$(226,538) \$614,819 BALANCE July 1, 2024 443,500 44 \$930,054 \$(163,114) \$766,940 A Stock-based compensation expense A A A 28,959 A 28,959 Stock options exercised 222 A 3,190 A 3,190 Release of restricted stock units 222 A A A A Net income A A A 23,360 A 23,360 BALANCE September 30, 2024 443,944 44 \$962,203 \$(139,754) \$822,453 A See accompanying notes to the Unaudited Condensed Consolidated Financial Statements. DUOLINGO, INC. AND SUBSIDIARIES UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS’ EQUITY NINE MONTHS ENDED SEPTEMBER 30, 2024 AND 2023 (Amounts in thousands) Common Stock Shares Amount Additional Paid-In Capital Accumulated Deficit Total BALANCE January 1, 2023 340,361 44 \$772,562 \$(230,488) \$542,074 A Stock-based compensation expense A A 70,219 A 70,219 Release of performance stock units 180 A A A A Taxes paid related to net-share settlement of share-based compensation awards (84) A (11,482) A (11,482) Stock options exercised 1,068 A 10,054 A 10,054 Release of restricted stock units 447 A A A A Net income A A A 3,950 A 3,950 BALANCE September 30, 2023 341,972 44 \$841,353 \$(226,538) \$614,819 BALANCE January 1, 2024 443,500 44 \$930,054 \$(163,114) \$766,940 A Stock-based compensation expense A A 80,690 A 80,690 Stock options exercised 802 A 11,595 A 11,595 Release of restricted stock units 616 A A A A Net income A A A 23,360 A 23,360 BALANCE September 30, 2024 443,944 44 \$962,203 \$(139,754) \$822,453 A See accompanying notes to the Unaudited Condensed Consolidated Financial Statements. DUOLINGO, INC. AND SUBSIDIARIES UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (Amounts in thousands) Nine Months Ended September 30, 2024 2023 Cash flows from operating activities: Net income \$74,667 \$3,950 Adjustments to reconcile net income to net cash provided by operating activities: Depreciation and amortization 1,935 5,053 Stock-based compensation expense 80,690 70,219 Accretion on marketable securities, net (12) Gain on sale of capitalized software (100) Loss on disposal of leasehold improvements 417 Changes in assets and liabilities: Deferred revenue 61,411 51,338 Accounts receivable (5,209) (14,983) Deferred cost of revenues (13,398) (11,083) Prepaid expenses and other current assets (8,842) (2,299) Accounts payable 522 1,403 Accrued expenses and other current liabilities 1,351 1,854 Noncurrent assets and liabilities 3,796 321 Net cash provided by operating activities 202,169 104,421 Cash flows from investing activities: Purchases of investments (81,670) Capitalized software expense and purchases of intangible assets (8,545) (7,269) Purchase of property and equipment (10,155) (2,267) Proceeds from sale of capitalized software 100 Acquisition of companies, net of \$5 cash acquired (6,595) Net cash used for investing activities (106,965) (9,436) Cash flows from financing activities: Proceeds from exercise of stock options 11,595 10,054 Taxes paid related to net-share settlement of share-based compensation awards (11,482) Net cash provided by (used for) financing activities 11,595 (1,428) Net increase in cash, cash equivalents and restricted cash 106,799 93,557 Cash, cash equivalents and restricted cash - Beginning of period 750,345 608,180 Cash, cash equivalents and restricted cash - End of period \$857,144 \$701,737 See accompanying notes to the Unaudited Condensed Consolidated Financial Statements. DUOLINGO, INC. AND SUBSIDIARIES SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION (Amounts in thousands) Nine Months Ended September 30, 2024 2023 Supplemental disclosure of cash flow information: Cash paid for income taxes \$6,797 \$2,195 Supplemental disclosure of non-cash investing activities: Property and equipment included in Current liabilities \$1,094 \$242 Right of use assets obtained in exchange for new operating lease liabilities \$33,039 Right of use assets disposed or adjusted modifying operating leases liabilities \$1,303 See accompanying notes to the Unaudited Condensed Consolidated Financial Statements. DUOLINGO, INC. AND SUBSIDIARIES NOTES TO THE UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS. A DESCRIPTION OF THE BUSINESS AND BASIS OF PRESENTATION Duolingo, Inc. (the Company or Duolingo) was formed on August 18, 2011, and the Duolingo App was launched to the general public on June 19, 2012. The Company’s headquarters are located in Pittsburgh, Pennsylvania. Duolingo is a US-based mobile learning platform, as well as a digital language proficiency assessment exam. The Company has a freemium business model: the app and the website are accessible free of charge, although Duolingo also offers premium services for a subscription fee. As of the date of this filing, Duolingo offers courses in over 40 different languages, including Spanish, English, French, German, Italian, Portuguese, Japanese and Chinese. We have locations in the U.S., China and Germany. Principles of Consolidation The Unaudited Condensed Consolidated Financial Statements include the accounts of the Company and subsidiaries over which the Company has control. All intercompany transactions and balances have been eliminated. Basis of Presentation The accompanying Unaudited Condensed Consolidated Financial Statements have been prepared in accordance with generally accepted accounting principles in the U.S. (GAAP) accounting records and reflect the consolidated financial

position and results of operations for the three and nine months ended September 30, 2024 and 2023. Unless otherwise specified, all dollar amounts (other than per share amounts) are referred to in thousands. The Unaudited Condensed Consolidated Financial Statements have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (    SEC  ). Certain information and note disclosures normally included in financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such SEC rules. We believe that the disclosures made are adequate to make the information presented not misleading. In our opinion, all adjustments considered necessary for a fair presentation of the financial statements have been included, and all adjustments are of a normal and recurring nature. We applied the accounting policies consistently with the policies used in the preparation of the Annual Report on Form 10-K in preparing these Unaudited Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q. These Unaudited Condensed Consolidated Financial Statements should be read in conjunction with the audited financial statements and the notes for the fiscal year ended December 31, 2023 included in the Annual Report on Form 10-K and filed with the SEC. 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES Accounting Principles The Unaudited Condensed Consolidated Financial Statements and accompanying notes are prepared in accordance with GAAP. Use of Estimates The preparation of Unaudited Condensed Consolidated Financial Statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the Unaudited Condensed Consolidated Financial Statements and accompanying notes. Significant estimates and assumptions reflected in the Unaudited Condensed Consolidated Financial Statements include, but are not limited to, useful lives of property and equipment and intangible assets, valuation of deferred tax assets and liabilities, stock-based compensation, common stock valuation, operating lease right-of-use assets and liabilities, capitalization of internally developed software and associated useful lives, contingent liabilities, fair value of investments and valuation of goodwill and intangible assets from acquisitions. Actual results may differ materially from such estimates. Management believes that the estimates, and judgments upon which they rely, are reasonable based upon information available to them at the time that these estimates and judgments are made. To the extent that there are material differences between these estimates and actual results, the Company's Unaudited Condensed Consolidated Financial Statements will be affected. Cash and Cash Equivalents Cash consists primarily of cash on hand and bank deposits. Cash equivalents consist primarily of money market accounts with maturities of three months or less at the date of acquisition and are stated at cost, which approximates fair value. The Company maintains cash deposits with financial institutions that may exceed federally insured limits at times. Investments Investments consist primarily of corporate debt securities and U.S. Treasury securities. Management determines the appropriate classification of investments at the time of purchase based upon management's intent with regard to such investments. The Company's investments are classified as held-to-maturity at the time of purchase, and such classifications are reevaluated as of each balance sheet date. All highly liquid investments with an original maturity of 90 days or less when purchased are considered to be cash equivalents. Investments with remaining contractual maturities of one year or less from the balance sheet date, which are not considered cash equivalents, are classified as short-term investments, and those with remaining contractual maturities greater than one year from the balance sheet date are classified as long-term investments. All investments are recorded at amortized cost. Realized gains and losses on sales and maturities of investments are determined based on the specific identification method and are recognized in the Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income. We perform periodic evaluations to determine whether any declines in the fair value of investments below cost are other-than-temporary. The evaluation consists of qualitative and quantitative factors regarding the severity and duration of the unrealized loss, as well as the Company's ability and intent to hold the investments until a forecasted recovery occurs. The impairments are considered to be other-than-temporary if they are related to deterioration in credit risk or if it is likely that the underlying securities will be sold or mature prior to a full recovery of their cost basis. Other-than-temporary fair value impairments, if any, are determined based on the specific identification method and are reported in Other income (expense), net in the Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income. Acquisitions The Company uses the acquisition method of accounting for business combination transactions, and, accordingly, recognizes the fair values of assets acquired and liabilities assumed in the Company's Unaudited Condensed Consolidated Financial Statements. The excess of the fair value of purchase consideration over the values of these identifiable assets and liabilities is recorded as goodwill. Transaction costs related to the acquisition of the acquired company are expensed as incurred. The allocation of fair values may be subject to adjustment after the initial allocation for up to a one-year period as more information becomes available relative to the fair values as of the acquisition date. The Unaudited Condensed Consolidated Financial Statements include the results of operations of any acquired company since the acquisition date. Advertising Costs Advertising costs were approximately \$18,149 and \$45,617 for the three and nine months ended September 30, 2024, and \$16,229 and \$39,528 for the three and nine months ended September 30, 2023, respectively, and are included within Sales and marketing in the Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income. Income Taxes The Company's provision for income taxes is computed by using an estimate of the annual effective tax rate, adjusted for discrete items taken into account in the relevant period, if any. Each 13 quarter, the annual effective income tax rate is recomputed and if there are material changes in the estimate, a cumulative adjustment is made. Concentration of Credit Risk The Company's concentration of credit risk relates to financial institutions holding the Company's cash and cash equivalents and platforms with significant accounts receivable balances and revenue transactions. The Company maintains cash deposits with financial institutions that may exceed federally insured limits at times. Management believes that the financial institutions that hold the Company's deposits are financially credit worthy and, accordingly, minimal credit risk exists with respect to those balances. The majority of revenue comes through the subscriptions and advertising streams, and payments are made to Duolingo through service providers. Two service providers, Apple and Google, accounted for 69.7% and 15.0% of total Accounts receivable as of September 30, 2024, respectively. Three service providers, Apple, Google, and Stripe accounted for 65.2%, 20.7%, and 10.7% of total Accounts receivable as of December 31, 2023, respectively. Impairment of long-lived assets The Company reviews its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If the sum of the estimated undiscounted future cash flows expected to result from the use and eventual disposition of an asset is less than the carrying amount of the asset, an impairment loss is recognized. Measurement of an impairment loss is based on the fair value of the asset. No assets were impaired during the three and nine months ended September 30, 2024 and 2023. Allowance for Credit Losses The Company evaluates its cash equivalents, accounts receivable and held-to-maturity marketable securities financial assets for expected credit losses. Expected credit losses represent the portion of the amortized cost basis of a financial asset that an entity does not expect to collect. An allowance for expected credit losses is meant to reflect a risk of loss even if remote, irrespective of the expectation of collection from a particular issuer or debt security. The Company has not historically experienced any credit losses on any of its financial assets. With respect to cash equivalents and accounts receivable, given consideration of their short maturity, lack of historical losses and the current environment, the Company concluded there is generally no expected credit losses for these financial assets. With respect to held-to-maturity marketable securities which are comprised of debt securities, the Company evaluates expected credit losses on a pooled basis based on issuer-type which have similar credit risk characteristics. The allowance for credit losses is immaterial for all periods presented. Recently Issued Pronouncements Not Yet Adopted In November 2023, the Financial Accounting Standards Board (    FASB  ) issued Accounting Standards Update (    ASU  ) 2023-07, Segment Reporting (Topic 280), which improves reportable segment disclosure requirements, primarily through enhanced disclosures about significant segment expenses. The standard is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. Early adoption is permitted. The Company does not expect the adoption of the new guidance will have a material impact on the Company's consolidated financial statements and related disclosures. In December 2023, the FASB issued ASU 2023-09, Income Taxes (Topic 740), which includes improvements to income tax disclosures. The standard is effective for public entities in fiscal years beginning after December 15, 2024. Early adoption is permitted. The Company does not expect the 14 adoption of the new guidance will have a material impact on the Company's consolidated financial statements and related disclosures. Recently Adopted Accounting Pronouncements There are no recently adopted accounting pronouncements. 3. FAIR VALUE The Company accounts for certain assets and liabilities at fair value in accordance with the accounting guidance applicable to fair value measurements and disclosures. The carrying values of cash, cash equivalents, accounts receivable, accounts payable, and accrued expenses are deemed to be reasonable estimates of their fair values because of their short-term nature. The Company applies fair value accounting for all financial assets and liabilities and non-financial assets and liabilities that are recognized or disclosed at fair value in the financial statements on a recurring and non-recurring basis. The Company defines fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities, which are required to be recorded at fair value, the Company considers the principal or most advantageous market in which the Company would transact and the market-based risk measurements or assumptions that market participants would use in pricing the asset or liability, such as inherent risk, transfer restrictions, and credit risk. The Company applies the following fair value hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement: Level 1 Observable inputs such as quoted prices in active markets for identical investments that the Company has the ability to access. Level 2 Inputs include: Quoted prices for similar assets or liabilities in active markets; Quoted prices for identical or similar assets or liabilities in inactive markets; Inputs, other than quoted prices in active markets, which are observable either directly or indirectly; Inputs that are derived principally from, or corroborated by, observable market data by correlation or other means. Level 3 Unobservable inputs in which there is little or no market activity for the asset or liability, which require the reporting entity to develop its own estimates and assumptions relating to the pricing of the asset or liability including assumptions regarding risk. The following table presents amortized cost, gross unrealized gains and losses, fair value by major security type and balance sheet classification as of September 30, 2024 and December 31, 2023. (In thousands) Amortized Cost Gross Unrealized Losses Fair Value Cash Equivalents Short-Term Investments Long-Term Investments Cash \$63,300 \$63,300 \$63,300 Level 1 Commercial papers \$2,936 \$2,936 \$2,936 \$2,936 Money market funds \$791,109 \$791,109 \$791,109 \$791,109 Subtotals \$794,045 \$794,045 \$794,045 \$794,045 Level 2 Corporate debt securities \$65,901 \$65,826 \$65,901 \$65,826 U.S. Treasury securities \$11,845 \$11,844 \$11,845 \$11,844 Subtotals \$77,746 \$77,746 \$77,746 \$77,746 Level 3 Investment in SAFES \$1,000 \$1,000 \$1,000 \$1,000 Subtotal \$1,000 \$1,000 \$1,000 \$1,000 Total \$871,791 \$871,791 \$871,791 \$871,791 As of December 31, 2023 (In thousands) Amortized Cost Gross Unrealized Gains Gross Unrealized Losses Fair Value Cash Equivalents Short-Term Investments Long-Term Investments Cash \$697,237 \$697,237 \$697,237 \$697,237 Total \$697,237 \$697,237 \$697,237 \$697,237 As of September 30, 2024 and December 31, 2023, all of the Company's short-term investments have contractual maturities of one year or less and all of the Company's long-term investments have contractual maturities between one and three years. Changes in market interest rates, credit risk of borrowers and overall market liquidity, amongst other factors, may cause the short-term and long-term debt investments to fall below their amortized cost basis, resulting in unrealized losses. For those debt securities in an unrealized loss position as of September 30, 2024, the Company does not intend to sell, nor is it more likely than not that it will be required to sell, such securities before recovering the amortized cost basis. No other-than-temporary impairments have been recognized in the financial statements for the periods ended September 30, 2024 and December 31, 2023. Cash equivalents consist primarily of money market accounts with maturities of three months or less at the date of acquisition and are classified within Level 1. The Company's investments in U.S. Treasury securities and corporate bonds, which collectively are investments in held-to-maturity debt securities, are classified within Level 2, as their valuation requires quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in 16 markets that are not active and/or model-based valuation techniques for which all significant inputs are observable in the market or can be corroborated by observable market data. 4. ACQUISITIONS During July 2024, the Company completed two acquisitions which brought new designer, illustration, animation, and engineering talent to Duolingo's existing teams in addition to developed technology. The total aggregate consideration was \$7,500, of which \$7,100 represents the purchase price allocated to the fair value of the acquired assets and assumed liabilities, as detailed below. Of this, \$6,600 was paid in cash upon closing, and \$500 is being held back until certain post-acquisition conditions are satisfied. This \$500 is recorded as a Current liability in the Unaudited Condensed Consolidated Balance Sheet. The remaining \$400 of the total aggregate consideration is contingent on one year of continued service of certain employees, and will be expensed over the period within General and administrative in the Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income. During 2024, the Company incurred \$736 of acquisition costs related to due diligence and valuation, which are included in General and administrative expense within the Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income. The accounting for the acquisitions has not yet been completed because the Company has not finalized the valuations of the acquired assets, assumed liabilities and identifiable intangible assets, including goodwill. The following table summarizes the Company's preliminary allocation of the purchase consideration based on the fair value of assets acquired and liabilities assumed at the acquisition dates: (In thousands) July 2024 Cash and cash equivalents \$5 Other current assets acquired \$37 Intangible assets, net \$1,007 Goodwill \$4,488 Other liabilities assumed \$(437) Total purchase price \$7,100 Goodwill is attributable to the assembled workforce, future technologies and general going concern arising from the acquisitions. \$3,600 of the goodwill recognized is expected to be deductible for income tax purposes. 5. REVENUE The Company has four predominant sources of revenues; time-based subscriptions, in-app advertising placement by third parties, the Duolingo English Test, and In-App Purchases. Revenue is recognized upon transfer of control of promised products or services to users in an amount that reflects the consideration the Company expects to receive in exchange for those services. The Company does not enter into contracts with a customer that contain multiple promises that result in multiple performance obligations. Revenue is recorded net of taxes assessed by a government authority that are both imposed on and concurrent with specific revenue transactions between Duolingo and its users. Revenue from time-based subscriptions includes a stand-ready obligation to provide hosting services that are consumed by the customer over the subscription period. Users can purchase Duolingo monthly or they can purchase a year-long subscription and pay for the subscription at the time of purchase. Under the year-long subscription, users can also purchase a single plan or a family plan. The family plan includes up to six users on one subscription. Such payments are initially recorded to deferred revenue. The user has the ability to download limited content offline. However, as there is a significant level of integration and interdependency with the online functionality, the Company considers the service to be a single performance obligation for the online and offline content. The Company enters into arrangements with advertising networks to monetize the in-app advertising inventory. Revenue from in-app advertising placement is recognized at a point in time when the advertisement is placed and is based upon the amount received. Duolingo English Test revenue is generally recognized once the tests have gone through the proctoring process and a certification decision has been made. This process usually takes less than 48 hours after the test has been completed and uploaded. Customers have 21 days from the date of purchase to take the exam or their purchase will expire and revenue will be recognized. Virtually all customers complete their exams prior to expiration. Sometimes organizations may purchase tests in bulk via coupons with a one year expiration date. The Company will defer revenue from all tests that have neither been proctored nor expired. The Company's users have the option to purchase consumable in-app virtual goods. The Company recognizes revenue over the period in which the user consumes the virtual good, which is generally within a month. The Company also recognizes revenue from Duo's Taquer a, a restaurant that opened during 2022, in the space adjacent to Duolingo's headquarters in Pittsburgh. Revenue from Duo's Taquer a is recognized at a point in time when the sales are made. Principal Agent Considerations The Company makes its application available to be downloaded through third-party digital distribution service providers. Users who purchase subscriptions also pay through the respective app stores. The Company evaluates the purchases via third-party payment processors to determine whether its revenues should be reported gross or net of fees retained by the payment processor. The Company is the principal in the transaction with the end user as a result of controlling, hosting, and integrating the delivery of the virtual items to the end user. The Company records revenue gross as a principal and records fees paid to third-party payment processors as Cost of revenues. Contract Balances Deferred revenue mostly consists of payments received in advance of revenue recognition, and is mostly related to time-based subscriptions, which will be recognized into revenue over the course of the upcoming year (recognized over 12 months or less). Additionally, the Duolingo English Test has deferred revenue related to tests that have been purchased, but will not be recognized until the tests have been proctored.



contributions of 100% of the first 4% of the employees' elective deferrals and 50% of the next 2%, with vesting starting upon the first day of employment. The Company also has the option to make discretionary matching or profit sharing contributions. The Company made safe harbor matching contributions of approximately \$1,807 and \$1,563 during the three months ended September 30, 2024 and 2023, respectively, and \$5,095 and \$4,433 during the nine months ended September 30, 2024 and 2023, respectively. The Company did not make any discretionary matching or profit sharing contributions during the three and nine months ended September 30, 2024 or 2023.13.À À EARNINGS PER SHAREBasic and diluted net income per share attributable to common stockholders is presented in conformity with the two-class method required for participating securities. Basic net income per share attributable to common stockholders is calculated by dividing the net income by the weighted-average number of shares of common stock outstanding during the period, less shares subject to repurchase. The diluted net income per share attributable to common stockholders is calculated by giving effect to all potential dilutive common stock equivalents outstanding for the period. The rights, including the liquidation and dividend rights, of the holders of Class A and Class B common stock are identical, except with respect to voting and conversion. Each share of Class A common stock is entitled to one vote per share and each share of Class B common stock is entitled to 20 votes per share. Each share of Class B common stock is convertible into a share of Class A common stock voluntarily at any time by the holder, and automatically upon certain events. The Class A common stock has no conversion rights. As the liquidation and dividend rights are identical for Class A and Class B common stock, the undistributed earnings are allocated on a proportional basis and the resulting net income per share attributable to common stockholders will, therefore, be the same for both Class A and Class B common stock on an individual or combined basis.27Three Months Ended September 30, Nine Months Ended September 30, (In thousands, except per share data)2024202320242023Numerator:Net income attributable to Class A and Class B common stockholders\$23,360À \$2,807À \$74,667À \$3,950À Denominator:Weighted-average shares in computing net income per share attributable to Class A and Class B common stockholders, basic and diluted43,707À 41,719À 43,253À 41,190À Effect of dilutive securitiesFounder awards where performance has been met270À 270À Dilutive effect of stock options outstanding (1)2,054À 3,004À 2,054À 3,004À RSUs outstanding1,938À 2,223À 1,938À 2,223À Denominator for dilutive net income per common share - weighted-average shares47,969À 46,946À 47,515À 46,417À Basic income per common share\$0.53À \$0.07À \$1.73À \$0.10À Diluted income per common share\$0.49À \$0.06À \$1.57À \$0.09À (1) The Company had 2.2À million options outstanding as of September 30, 2024. The estimated dilutive effect is calculated as the number of shares expected to be issued upon vesting or exercise, adjusted for the strike price proceeds that are received by the Company and assumed to be used to repurchase shares of Duolingo common stock.14.À À À SUBSEQUENT EVENTSNone.Item 2. Management's Discussion and Analysis of Financial Condition and Results of OperationsThe following discussion and analysis of our financial condition and results of operations should be read in conjunction with our Unaudited Condensed Consolidated Financial Statements and related notes included elsewhere in this Quarterly Report on Form 10-Q, the audited consolidated financial statements and related notes included in our Annual Report on Form 10-K and in Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations of our Annual Report on Form 10-K. The following discussion contains forward-looking statements, such as those relating to our plans, objectives, expectations, intentions, and beliefs, that involve risks, uncertainties and assumptions. Our actual results could differ materially from these forward-looking statements as a result of many factors, including those discussed in Part II, Item 1A. Risk Factors, Special Note Regarding Forward-Looking Statements, and included elsewhere in this Quarterly Report on Form 10-Q, and in Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations of our Annual Report on Form 10-K. Our historical results are not necessarily indicative of the results that may be expected for any periods in the future. Amounts reported in millions are rounded 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. Overview28Our flagship app has organically become the world's most popular way to learn languages and the top-grossing Education app in the App Stores, offering courses in over 40 languages to over 100 million monthly active users for the three months ended September 30, 2024. We believe that we have become the preeminent online destination for language learning due to our beautifully designed products, exceptional user engagement, and demonstrated learning efficacy.Key Operating Metrics and Non-GAAP Financial MeasuresWe regularly review a number of key operating metrics and non-GAAP financial measures to evaluate our business, measure our performance, identify trends, prepare financial projections and make business decisions. The measures set forth below should be considered in addition to, not as a substitute for or in isolation from, our financial results prepared in accordance with generally accepted accounting principles in the U.S. (non-GAAP). Monthly active users (MAUs) and daily active users (DAUs), along with paid subscribers, subscription bookings and total bookings, are operating metrics that help inform management about the underlying growth in users of our platform, and are a measure of our monetization efforts. To calculate the year-over-year change in MAUs and DAUs for a given period, we subtract the average for the same period in the previous year from the average for the same period in the current year and divide the result by the average for the same period in the previous year. Other companies, including companies in our industry, may calculate these measures differently or not at all, which reduces their usefulness as comparative measures. Three Months Ended September 30, (In millions)20242023Operating Metrics Monthly active users (MAUs)113.1À 83.1À Daily active users (DAUs)37.2À 24.2À Paid subscribers (at period end)8.6À 5.8À Three Months Ended September 30, Nine Months Ended September 30, (In thousands)2024202320242023Operating Metrics Subscription bookings\$176,309À \$121,342À \$494,259À \$337,718À Total bookings\$211,456À \$153,556À \$599,000À \$431,149À Non-GAAP Financial MeasuresNet income (GAAP)\$23,360À \$2,807À \$74,667À \$3,950À Adjusted EBITDA\$47,508À \$22,501À \$139,630À \$58,483À Net cash provided by operating activities (GAAP)\$56,267À \$37,650À \$202,169À \$104,421À Free cash flow\$52,674À \$33,472À \$187,162À \$96,604À Operating Metrics Monthly active users (MAUs). MAUs are defined as unique users who engage with our Duolingo App or the 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. The measurement period for MAUs is the three months ended September 30, 2024 and the same period in the prior year where applicable, and the analysis of results is based on those periods. MAUs are a measure of the size of our global active user community on Duolingo. We had approximately 113.1 million and 83.1 million MAUs for the three months ended September 30, 2024 and 2023, respectively, representing an increase of 36% from the prior year period. We grew MAUs through product initiatives designed to make the app more social and engaging, through marketing, and through improving our courses, all of which we believe helped us attract new users, retain existing users, and reengage the millions of former users who return to our Duolingo App. Daily active users (DAUs). DAUs are defined as unique users who engage with our Duolingo App or the 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. The measurement period for DAUs is the three months ended September 30, 2024 and the same period in the prior year where applicable, and the analysis of results is based on those periods. DAUs are a measure of the consistent engagement of our global user community on Duolingo. We had approximately 37.2 million and 24.2 million DAUs for the three months ended September 30, 2024 and 2023, respectively, representing an increase of 54% from the prior year period. The DAU / MAU ratio, which we believe is an indicator of user engagement, increased to 32.9% from 29.1% a year ago. We grew DAUs through many of the same marketing and product initiatives as we grew MAUs, such as making the product more fun and engaging. Paid Subscribers. Paid subscribers are defined as users who pay for access to any Duolingo subscription offering 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. As of September 30, 2024 and 2023, we had approximately 8.6 million and 5.8 million paid subscribers, respectively, representing an increase of 47% from the prior year period. We grew paid subscribers through product initiatives designed to make Duolingo subscription offerings more appealing, which we believe helped us attract new subscribers and retain existing subscribers. Subscription Bookings and Total Bookings. Subscription bookings represent the amounts we receive from a purchase of any Duolingo subscription offering. Total bookings include subscription bookings, income from advertising networks for advertisements served to our users, purchases of the Duolingo English Test, and in-app purchases of virtual goods. 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. For the three months ended September 30, 2024 and 2023, we generated \$176.3 million and \$121.3 million of subscription bookings, respectively, representing an increase of 45% from the prior year period. For the nine months ended September 30, 2024 and 2023, we generated \$494.3 million and \$337.7 million of subscription bookings, respectively, representing an increase of 46% from the prior year period. We grew subscription bookings by selling more first-time and renewal subscriptions. For the three months ended September 30, 2024 and 2023, we generated \$211.5 million and \$153.6 million total bookings, respectively, representing an increase of 38% from the prior year period. For the nine months ended September 30, 2024 and 2023, we generated \$599.0 million and \$431.1 million total bookings, respectively, representing an increase of 39% from the prior year period. We grew total bookings primarily through growth in subscription bookings as noted above. Non-GAAP Financial Measures We use certain non-GAAP financial measures to supplement our Unaudited Condensed Consolidated Financial Statements, which are presented in accordance with GAAP. These non-GAAP financial measures include Adjusted EBITDA, free cash flow and constant currency. 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, free cash flow and constant currency provide 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 financial 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. The effect of currency exchange rates on our business is an important factor in understanding period to period comparisons. We use non-GAAP percentage change in constant currency revenues, which exclude the impact of fluctuations in foreign currency exchange rates, for financial and operational decision-making and as a means to evaluate period-to-period comparisons. We believe this information is useful to investors to facilitate comparisons and better identify trends in our business. The impact of changes in foreign currency may vary significantly from period to period, and such changes generally are outside of the control of our management. We calculate constant currency revenues by using current period foreign currency revenues and translating them to constant currency using prior year comparable period exchange rates for the entire period of related bookings. Constant currency revenue percentage change is calculated by dividing the difference between constant currency revenue and the prior year comparable period revenue by the prior year comparable period revenue. Adjusted EBITDA. Adjusted EBITDA is defined as net income excluding interest income, income taxes, depreciation and amortization, stock-based compensation expenses related to equity awards, transaction costs related to acquisitions, acquisition earn-out costs, gain on sale of capitalized software and loss on disposal of leasehold improvements. 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 31our net income, the most directly comparable financial measure presented in accordance with GAAP, to Adjusted EBITDA. Three Months Ended September 30, Nine Months Ended September 30, (In thousands)2024202320242023Net income\$23,360À \$2,807À \$74,667À \$3,950À Add (deduct):Interest income(1,246)À (8,625)À (32,000)À (21,807)À Provision (benefit) for income taxes2,029À 125À 5,287À (1,306)À Depreciation and amortization2,876À 1,657À 7,193À 5,053À Stock-based compensation expense related to equity awards (1)299,904À 26,007À 83,647À 71,938À Acquisition transaction costs (2)399À 41À 736À 41À Acquisition earn-out costs (3)100À 113À 384À Gain on sale of capitalized software (4)À À À À Loss on disposal of leasehold improvements (5)À 47,508À 22,501À 139,630À 58,483À (1) In addition to stock-based compensation expense of \$29.0 million and \$25.4 million for the three months ended September 30, 2024 and 2023, respectively, and \$80.7 million and \$70.2 million for the nine months ended September 30, 2024 and 2023, respectively, this includes costs incurred related to taxes paid on equity transactions as follows: Three Months Ended September 30, Nine Months Ended September 30, (In thousands)2024202320242023Research and development\$577À \$366À \$1,489À \$947À Sales and marketing31À 20À 84À 60À General and administrative423À 189À 1,384À 712À Total\$1,031À \$575À \$2,957À \$1,719À (2) Represents costs incurred related to acquisitions, including integration costs, which are included in General and administrative expense within our Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income. (3) Represents costs incurred related to the earn-out payments on acquisitions, which is included within General and administrative expense within our Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income. (4) Represents proceeds from a sale of capitalized software, which is included within Other income (expense), net within our Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income. (5) Represents a loss on disposal of leasehold improvements, which is included within Other income (expense), net within our Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income. For the three months ended September 30, 2024 and 2023, we generated net income of \$23.4 million and \$2.8 million, respectively. For the nine months ended September 30, 2024 and 2023, we generated net income of \$74.7 million and \$4.0 million, respectively. The increase in net income as compared to the comparative period was due to a combination of our growth in revenue and interest income in addition to a reduction in operating expenses as a percentage of revenue as compared to the prior year period. For the three months ended September 30, 2024 and 2023, we generated Adjusted EBITDA of \$47.5 million and \$22.5 million, respectively. For the nine months ended September 30, 2024 and 2023, we generated Adjusted EBITDA of \$139.6 million and \$58.5 million, respectively. Adjusted EBITDA increased due to a combination of our growth in revenue and a reduction in operating expenses as a percentage of revenue as compared to the prior year periods. Free Cash Flow. Free cash flow represents net cash provided by operating activities, reduced by capitalized software development costs and purchases of property and equipment and increased by taxes paid related to stock-based compensation equity awards and transaction costs related to acquisitions as we believe such items 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. Free cash flow has certain limitations in that it does not represent our residual cash flow for discretionary expenditures and our non-discretionary commitments. 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. Three Months Ended September 30, Nine Months Ended September 30, (In thousands)2024202320242023Net cash provided by operating activities\$56,267À \$37,650À \$202,169À \$104,421À Less: Capitalized software development costs and purchases of intangible assets(1,845)À (3,994)À (8,545)À (7,269)À Plus: Taxes paid related to stock-based compensation equity awards1,031À 575À 2,957À 1,719À Plus: Acquisition transaction costs (1)399À 41À 736À 41À Free cash flow\$52,674À \$33,472À \$187,162À \$96,604À (1) Represents costs incurred related to acquisitions, including integration costs. For the three months ended September 30, 2024 and 2023, we generated \$56.3 million and \$37.7 million of net cash provided by operating activities, respectively. For the nine months ended September 30, 2024 and 2023, we generated \$202.2 million and \$104.4 million of net cash provided by operating activities, respectively. The increases in both periods were mainly due to our increase in net income as discussed under the heading Adjusted EBITDA above. For the three months ended September 30, 2024 and 2023, we generated \$52.7 million and \$33.5 million of free cash flow, respectively. For the nine months ended September 30, 2024 and 2023, we generated \$187.2 million and \$96.6 million of free cash flow, respectively. The increase in free cash flow was mainly attributable to the increase in net cash provided by operating activities. Constant Currency. The effect of currency exchange rates on our business is an important factor in understanding period to period comparisons. We use non-GAAP constant currency revenues and non-GAAP percentage change in constant currency revenues for financial and operational decision-making and as a means to evaluate period-to-period comparisons. Total revenues were \$192.6 million for the three months ended September 30, 2024, which represents an increase of 40% on a reported basis and 41% on a constant currency basis over the three months ended September 30, 2023. Subscription revenues totaled \$157.6 million for the three months ended September 30, 2024, which represented an increase of 49% on a reported basis and 50% on a constant currency basis over the three months ended September 30, 2023. 33 Total revenues were \$538.5 million for the nine months ended September 30, 2024, which represents an increase of 42%, on both a reported and constant

currency basis, over the nine months ended September 30, 2023. Subscription revenues totaled \$433.2 million for the nine months ended September 30, 2024, which represented an increase of 51% on a reported basis and 52% on a constant currency basis over the nine months ended September 30, 2023. Components of Our Results of Operations Revenue We generate revenues primarily from the sale of subscriptions. The term-length of our subscription agreements are primarily monthly or annual, with the family plan offered as an annual subscription. We also generate revenue from advertising, the in-app sale of virtual goods, and the Duolingo English Test. Cost of Revenues Cost of revenues predominantly consists of third-party payment processing fees charged by various distribution channels in addition to hosting fees. To a much lesser extent, cost of revenues includes customer support costs, such as contractor fees, wages and stock-based compensation for certain employees working in customer support. It also includes the amortization of revenue generating capitalized software, and depreciation of certain property and equipment. We intend to continue to invest additional resources in our infrastructure and our customer support and success organization to expand the capabilities of our platform and ensure that our users are realizing the full benefit of our products. The level, timing, and relative investment in these areas could affect our cost of revenues in the future. Gross Profit and Gross Margin Gross profit represents revenues less cost of revenues. Gross margin is gross profit expressed as a percentage of revenues. Our gross profit may fluctuate from period to period as our revenues fluctuate, and also as a result of the timing and amount of investments we make in items related to cost of revenues. Operating Expenses Our operating expenses consist of research and development, sales and marketing, and general and administrative expenses. Personnel costs are the most significant component of operating expenses and consist of salaries, benefits, and stock-based compensation expense. Operating expenses also include overhead costs for facilities, including depreciation expense. Research and Development. We invest heavily in research and development to create new products and product features that help us grow our user base, engage our users, monetize our users, and teach our users. This, in turn, drives additional growth in, and better lifetime value of, our paid subscribers, as well as increased advertising revenue from impressions from our free users. Expenses are primarily made up of costs incurred for the development of new and improved products and features in our applications during the preliminary product development stage. Such expenses include employee-related compensation, including stock-based compensation, of engineers, designers, and product managers, in addition to materials, travel and direct costs associated with the design and required testing of our platform. We expect engineers, designers, and product managers to represent a significant portion of our employees for the foreseeable future. We typically capitalize a small portion of research and development costs once the product has reached application development phase, mostly consisting of wages, each period into capitalized software when the work is specific to launching a new product, or making major 34 upgrades to our existing products or platforms. We regularly test product improvements with our users. Many of these tests start by making small changes in the product that affect small numbers of users. As the tests evolve, they can require increasing investment and can impact more users. This process of constant testing is how we implement many of our new products and improvements to our platform and, in total, require large investments and involve substantial time and risks to develop and launch. Some of these products and product improvements may not be well received or may take a long time for users to adopt. As a result, the benefits of our research and development investments may be difficult to forecast. We expect research and development to continue to be our largest operating expense, but expect that it will decline as a percentage of revenues over the long-term. Sales and Marketing. Sales and marketing expenses are expensed as incurred and consists primarily of brand advertising, marketing, digital and social media spend, field marketing, travel, trade show sponsorships and events, conferences, and employee-related compensation, including stock-based compensation for personnel engaged in sales and marketing functions, and amortization of non-revenue generating capitalized software used to promote Duolingo. We expect our sales and marketing expenses will decline as a percentage of revenues over the near-term. General and Administrative. General and administrative expenses primarily consist of employee-related compensation, including stock-based compensation, for management and administrative functions, including our finance and accounting, legal, and people teams. General and administrative expenses also include certain professional services fees, general corporate and director and officer insurance, our facilities costs, public company costs to comply with the rules and regulations of the Securities and Exchange Commission (SEC) and the Listing Rules of the Nasdaq Global Select Market, and other general overhead costs that support our operations. We expect that our general and administrative expenses will increase in absolute dollars as our business grows. However, we expect that our general and administrative expenses will decrease as a percentage of our revenues as our revenues grow faster than these expenses over the long-term. Interest Income Interest income consists of income earned on our money market funds included in cash and cash equivalents and income earned and net accretion on our marketable securities. Other income (expense), net Other income (expense), net consists primarily of foreign currency exchange gains and losses. Provision (benefit) for income taxes The provision (benefit) for income taxes represents the income tax provision (benefit) associated with our operations based on the tax laws of the jurisdictions in which we operate. In addition to the U.S., we also operate in foreign jurisdictions that have different statutory rates. Our effective tax rates will vary depending on the relative proportion of foreign to domestic income, changes in the valuation of our deferred tax assets and liabilities, and changes in tax laws. Results of Operations Comparison of the three and nine months ended September 30, 2024 and 2023 The following table sets forth our Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income data, including year-over-year change, for the periods indicated: Three Months Ended September 30, Nine Months Ended September 30, (in thousands) 2024 2023 Change % Change 2024 2023 Change % Change Revenues \$192,594 \$137,624 40% \$538,474 \$380,124 42% Cost of revenues (1) (2) 52,180 36,254 44 144,720 101,534 43 339,393 278,590 41 Operating expenses: Research and development (1) (2) 62,878 50,305 25 168,903 144,096 17 Sales and marketing (1) (2) 25,574 22,335 15 65,679 56,670 16 General and administrative (1) (2) 38,388 33,400 15 110,459 95,878 15 Total operating expenses 126,840 106,040 20 345,041 296,644 16 Income (loss) from operations 13,574 (4,670) nm 48,713 (18,054) nm Other income (expense), net 569 (1,023) nm (759) (1,109) (32) Income before interest income and income taxes 14,343 (5,693) nm 47,954 (19,163) nm Interest income 1,246 8,625 30 3,000 21,807 47 Income before income taxes 25,389 2,932 12 50,954 10,146 10 Provision (benefit) for income taxes 2,029 1,254 12 5,287 (1,306) nm Net income and comprehensive income \$23,360 \$2,807 12 \$45,667 \$9,840 47 (1) Includes stock-based compensation expenses as follows: Three Months Ended September 30, Nine Months Ended September 30, (in thousands) 2024 2023 2024 2023 Cost of revenues \$20 15 54 40 Research and development 16 230 12 2,444 43 331 32 568 Sales and marketing 1,305 1,151 3 557 2 899 General and administrative 11,404 12,022 3 3,748 34 712 Total \$28,959 \$25,432 8 80,690 \$70,219 36 (2) Includes amortization of capitalized software and depreciation of property and equipment as follows: Three Months Ended September 30, Nine Months Ended September 30, (in thousands) 2024 2023 2024 2023 Cost of revenues (a) \$1,397 \$402 \$3,189 \$1,207 Research and development 648 415 1,588 1,231 Sales and marketing (a) 218 270 646 934 General and administrative 613 570 1,770 1,681 Total \$2,876 \$1,657 \$7,193 \$5,053 (a) Amortization of capitalized software is recorded to Cost of Revenue and Sales and Marketing for revenue and non-revenue generating capitalized software, respectively. The following table sets forth the components of our Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income for each of the periods presented as a percentage of revenue. Three Months Ended September 30, Nine Months Ended September 30, 2024 2023 2024 2023 Revenues 100% 100% 100% 100% Cost of revenues 27% 26% 27% 27% Gross profit 73% 74% 73% 73% Operating expenses: Research and development 33% 37% 31% 38% Sales and marketing 13% 16% 12% 15% General and administrative 20% 24% 21% 25% Total operating expenses 66% 77% 64% 78% Income (loss) from operations 7% (3)% (9)% (5)% Other income (expense), net 4% (1)% 4% (1)% Income before interest income and income taxes 11% 11% 11% 11% Interest income 1% 1% 1% 1% Provision (benefit) for income taxes 1% 1% 1% 1% Net income and comprehensive income 12% 12% 14% 14% Revenues Revenues increased \$55.0 million, or 40%, to \$192.6 million during the three months ended September 30, 2024, from revenues of \$137.6 million during the three months ended September 30, 2023. Revenues increased \$158.4 million, or 42%, to \$538.5 million during the nine months ended September 30, 2024, from revenues of \$380.1 million during the nine months ended September 30, 2023. The main drivers of the increase were: (a) Subscription revenue increased \$51.7 million, or 49%, to \$157.6 million during the three months ended September 30, 2024, and \$146.0 million, or 51%, to \$433.2 million during the nine months ended September 30, 2024, primarily due to an increase in the average number of paid subscribers during the period; (b) Other revenue increased by \$3.2 million, or 10%, to \$35.0 million during the three months ended September 30, 2024, primarily due to increased advertising revenue of \$2.7 million which was driven by the increase in DAUs which resulted in increased advertisements served. (c) Other revenue increased by \$12.4 million, or 13%, to \$105.3 million during the nine months ended September 30, 2024, driven by increased advertising revenue of \$4.2 million and In-App Purchases of \$3.8 million, primarily driven by the increase in DAUs. Additionally, other revenue increased by \$3.8 million from Duolingo English Test revenue, which was driven by increases in the average revenue per test. The following table provides the changes in revenues by product type: Three Months Ended September 30, Nine Months Ended September 30, (in thousands) 2024 2023 Change % Change 2024 2023 Change % Change Subscription \$157,617 \$105,887 49% \$433,214 \$287,230 45% Other (1) 34,977 31,737 4 3,240 10,105 26 92,894 12,366 13 Total Revenues \$192,594 \$137,624 40% \$538,474 \$380,124 42% (1) Other revenue is comprised mainly of Advertising, Duolingo English Test, and In-App Purchases. Cost of Revenues and Gross Margin. Total gross margin was 73.9% during the three months ended September 30, 2024, a decrease from 73.7% in the three months ended September 30, 2023. This was due to a combination of lower margins in Other revenue offset by an increase in Subscription revenue as a percentage of total revenue. Total gross margin decreased slightly to 73.1% from 73.3% during the nine months ended September 30, 2024 and 2023. This was due to a combination of lower margins in Other revenue offset by an increase in Subscription revenue as a percentage of total revenue. The following table provides the change in cost of revenues, along with related gross margins: Three Months Ended September 30, Nine Months Ended September 30, 2024 2023 Change % Change 2024 2023 Change % Change (In thousands, except gross margin) Costs Gross Margin Costs Gross Margin Costs Gross Margin Costs Gross Margin Total cost of revenues \$52,180 72.9% \$36,254 73.7% \$144,720 (0.8)% \$144,720 73.1% \$101,534 73.3% \$43,186 (0.2)% Operating Expenses Research and Development. Research and development expense increased by \$12.6 million, or 25%, to \$62.9 million during the three months ended September 30, 2024 from \$50.3 million during the three months ended September 30, 2023. The increase was mainly due to: (a) Increased net personnel costs of \$11.9 million, driven primarily by the growth in headcount. Of this increase, \$4.2 million of the increase was related to stock-based compensation expense. Additionally, this increase reflects a \$2.1 million reduction in capitalized wages as compared to the same period in the prior year; (b) Increased web services of \$0.8 million; and (c) Increased other costs of \$0.6 million. Research and development expense increased by \$24.8 million, or 17%, to \$168.9 million during the nine months ended September 30, 2024 from \$144.1 million during the nine months ended September 30, 2023. The increase was mainly due to: (a) Increased net personnel costs of \$25.4 million, driven primarily by the growth in headcount. Total gross personnel costs increased by \$26.4 million, of which \$11.3 million of the increase was related to stock-based compensation expense. This increase was reduced by \$1.0 million of wages recorded as capitalized software as compared to the same period in the prior year; (b) Increased web services and technology costs of \$2.2 million; and (c) Increased travel and other costs of \$1.0 million. The above increases were partially offset by a decrease in net contractor costs of \$3.8 million. Research and development continues to be our largest operating expense as we test and experiment with new products and product features and improve existing ones to drive engagement and efficacy of our products. Increased engagement and efficacy, we believe, help drive organic growth in MAUs and DAUs, growth in, and better retention of, paid subscribers, as well as increased advertising opportunities with free users. Sales and Marketing. Sales and marketing expense increased by \$3.2 million, or 15%, to \$25.6 million during the three months ended September 30, 2024 from \$22.3 million during the three months ended September 30, 2023. This increase was mainly due to: (a) Increased direct marketing and other expenses of \$2.5 million; and (b) Increased personnel costs of \$0.7 million driven primarily by the growth in headcount, including increased stock-based compensation expense of \$0.2 million. Sales and marketing expense increased by \$9.0 million, or 16%, to \$65.7 million during the nine months ended September 30, 2024 from \$56.7 million during the nine months ended September 30, 2023. This increase was mainly due to: (a) Increased direct marketing and other expenses of \$7.0 million; and (b) Increased personnel costs of \$2.0 million driven primarily by the growth in headcount, including increased stock-based compensation expense of \$0.7 million. Direct marketing spend and other marketing expenses as a percentage of revenue decreased as a result of applying learnings from past years, which enabled us to leverage marketing expenses more efficiently. General and Administrative. General and administrative expense increased by \$5.0 million, or 15%, to \$38.4 million during the three months ended September 30, 2024 from \$33.4 million during the three months ended September 30, 2023. This increase was mainly due to: (a) Increased gross personnel costs of \$2.1 million, partially offset by a decline of \$0.4 million in stock-based compensation expense; (b) Increased web services and technology costs of \$0.7 million; (c) Increased professional fees of \$0.7 million; (d) Increased travel and meals expenses of \$0.6 million; (e) Increased facility-related costs of \$0.4 million; and (f) Increased office, tax related expenses and other costs of \$0.9 million. General and administrative expense increased by \$14.6 million, or 15%, to \$110.5 million during the nine months ended September 30, 2024 from \$95.9 million during the nine months ended September 30, 2023. This increase was mainly due to: (a) Increased gross personnel costs of \$5.1 million, partially offset by a decline of \$0.3 million in stock-based compensation expense; (b) Increased facility-related costs of \$2.5 million; (c) Increased web services and technology costs of \$2.3 million; (d) Increased travel and meals expenses of \$2.1 million; (e) Increased professional fees of \$1.9 million; and (f) Increased office and other expenses of \$1.7 million. The above increases were partially offset by decreases in insurance costs of \$0.7 million. Interest Income Interest income increased by \$2.6 million, or 30%, to \$11.2 million during the three months ended September 30, 2024, from \$8.6 million during the three months ended September 30, 2023. Interest income increased by \$10.2 million, or 47%, to \$32.0 million during the nine months ended September 30, 2024, from \$21.8 million during the nine months ended September 30, 2023. Both period increases were due to higher average interest-bearing balances, and the nine months ended September 30, 2024 also increased due to higher average yields. Other income (expense), net Other income (expense), net increased by \$1.6 million, during the three months ended September 30, 2024, and \$0.4 million, during the nine months ended September 30, 2024, mainly from the impact from changes in foreign currency rates. Provision (benefit) for income taxes For the three and nine months ended September 30, 2024, the Company recorded an income tax provision of \$2.0 million and \$5.3 million, respectively. For the three and nine months ended September 30, 2023, the Company recorded an income tax provision of \$0.1 million and benefit of \$1.3 million, respectively. For both of the periods ended September 30, 2024 and September 30, 2023, the Company has recognized a year-to-date discrete tax benefit attributable to the excess tax benefits of stock-based compensation activity. For 2024, however, there was tax expense on pretax operating activities which more than offset the discrete benefit, resulting in an overall year-to-date tax expense position. Liquidity and Capital Resources Since inception, we have financed operations primarily through revenues and the net proceeds we have received from the issuance of equity. 40As of September 30, 2024, we had \$854.4 million in cash and cash equivalents. Our cash and cash equivalents primarily consist of bank deposits and money market funds. Our short-term investments consist mainly of U.S. Treasury securities and corporate bonds. We believe that our existing cash and cash equivalents, short-term investments and cash flow from operations will be sufficient to support working capital and capital expenditure requirements for at least the next 12 months. Our future capital requirements will depend on many factors, including our subscription growth rate and renewal activity, the timing of cash received from our payment processing platforms, the expansion of our sales and marketing activities, the introduction of new products and the enhancements to existing products, and the current uncertainty in the global markets impacting, for example, consumer spending, inflation and foreign currency exchange rates. If we cannot meet our future capital requirements, we may be required to seek additional liquidity. If we are unable to raise additional capital or generate cash flows necessary to expand our operations and invest in continued innovation, we may not be able to compete successfully, which would harm our business and financial condition and results of operations. A substantial source of our cash from operations comes from deferred revenue, which is included in the liabilities section of our Unaudited Condensed Consolidated Balance Sheet. Deferred revenue consists of the unearned portion of customer billings, which is recognized as revenue in accordance with our revenue recognition policy. As of September 30, 2024, we had deferred revenues of \$310.6 million, which is recorded as a current liability and expected to be recognized as revenue in the next 12 months, provided all other revenue recognition criteria have been met. The following table summarizes our cash flows for the periods presented: Nine Months Ended September 30, (in thousands) 2024 2023 Net cash provided by operating activities \$202,169 \$104,421 Net cash used for investing activities (106,965) (9,436) Net cash provided by (used for) financing activities 11,595 (1,428) Net increase in cash, cash equivalents and restricted cash \$106,799 \$93,557 Operating Activities Cash flows from operating activities can fluctuate significantly from period to period due to timing of payments and cash collections. Our largest source of operating cash is cash collection from sales of subscriptions to

our Users. Our primary uses of cash from operating activities are for personnel expenses, marketing expenses, hosting expenses, and overhead expenses. Cash provided by operating activities increased by \$97.7 million, or 94%, to \$202.2 million for the nine months ended September 30, 2024 from \$104.4 million for the nine months ended September 30, 2023. This increase was mainly due to an increase in net income during the current period in addition to an increase in non-cash stock-based compensation expense. Investing Activities Cash used for investing activities increased by \$97.5 million, or 1,034%, to \$107.0 million for the nine months ended September 30, 2024, from \$9.4 million for the nine months ended September 30, 2023. The increase was primarily driven by purchases of investments of \$81.7 million, followed by additions of property and equipment, as well as the increases in costs from capitalization of software development as compared to the prior period. 41 Financing Activities Cash provided by financing activities was \$11.6 million for the nine months ended September 30, 2024 and was related to proceeds from exercises of stock options. Cash used for financing activities was \$1.4 million for the nine months ended September 30, 2023 due to taxes paid on the net-share settlements of share-based compensation awards of \$11.5 million, partially offset by proceeds from exercises of stock options of \$10.1 million. Critical Accounting Estimates Our Unaudited Condensed Consolidated Financial Statements and the related notes thereto included elsewhere in this Quarterly Report on Form 10-Q are prepared in accordance with GAAP. The preparation of Unaudited Condensed Consolidated Financial Statements also requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, costs and expenses, and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results could differ significantly from the estimates made by management. To the extent that there are differences between our estimates and actual results, our future financial statement presentation, financial condition, results of operations, and cash flows will be affected. There have been no material changes to our critical accounting policies and estimates as compared to those described in "Management's Discussion and Analysis of Financial Condition and Results of Operations" set forth in our Annual Report on Form 10-K. Recent Accounting Pronouncements See Note 1. Description of the Business and Basis of Presentation and Note 2. Summary of Significant Accounting Policies in the notes to our Unaudited Condensed Consolidated Financial Statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q for a discussion of Recent Accounting Pronouncements. Item 3. Quantitative and Qualitative Disclosures About Market Risk Interest Rate Risks As of September 30, 2024, we had \$854.4 million of cash equivalents invested in money market funds. Our cash and cash equivalents are held for working capital purposes in addition to future investments in our product. We do not enter into investments for trading or speculative purposes. Our investments are exposed to market risk due to a fluctuation in interest rates, which may affect our interest income and the fair market value of our investments. As of September 30, 2024, a hypothetical 10% relative change in interest rates would not have a material impact on our Unaudited Condensed Consolidated Financial Statements. Foreign Currency Exchange Risk Our reporting currency and the functional currency of our wholly owned foreign subsidiaries is the U.S. dollar. Certain of our payment providers translate our payments from local currency into USD at time of settlement, which means that during periods of a strengthening U.S. dollar, our international receipts could be reduced. Our operating expenses are denominated in the currencies of the countries in which our operations are located, which are primarily in the U.S., China and Germany. Our consolidated results of operations and cash flows are, therefore, subject to fluctuations due to changes in foreign currency exchange rates and may be adversely affected in the future due to changes in foreign exchange rates. In addition, as foreign currency exchange rates fluctuate, the translation of our international receipts into 42 U.S. dollars affects the period-over-period comparability of our operating results and can result in foreign currency exchange gains and losses. To date, we have not entered into any hedging arrangements with respect to foreign currency risk or other derivative financial instruments, although we may choose to do so in the future. A hypothetical 10% increase or decrease in the relative value of the U.S. dollar to other currencies would not have a material effect on our operating results. Inflation Risk Inflationary factors such as increases in costs may adversely affect our results of operations. We do not believe that inflation has had a material effect on our business, financial condition or results of operations to date. If our costs were to become subject to significant inflationary pressures, we may not be able to fully offset such higher costs through price increases. Our inability or failure to do so could harm our business, financial condition or results of operations. Item 4. Controls and Procedures Limitations on Effectiveness of Controls and Procedures Our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving their desired objectives. Management does not expect, however, that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all error and fraud. Any control system, no matter how well designed and operated, is based upon certain assumptions and can provide only reasonable, not absolute, assurance that its objectives will be met. Further, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within the Company have been detected. Evaluation of Disclosure Controls and Procedures Our management, with the participation of our principal executive officer and principal financial officer, conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on that evaluation, our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures were effective as of the end of the period covered by this Quarterly Report on Form 10-Q to provide reasonable assurance that information required to be disclosed by us in reports that we file or submit under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms and (ii) accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure. Changes in Internal Control Over Financial Reporting There were no changes in our internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act, during the three months ended September 30, 2024 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. 43 Part II Other Information Item 1. Legal Proceedings From time to time we may be involved in claims and proceedings arising in the course of our business. The outcome of any such claims or proceedings, regardless of the merits, is inherently uncertain. We are not currently party to any material legal proceedings. Item 1A. Risk Factors Our business, operations and financial results are subject to various risks and uncertainties that could materially adversely affect our business, financial condition, results of operations and the trading price of our Class A common stock. You should carefully consider the risks and uncertainties described below, together with all of the other information contained in this Quarterly Report on Form 10-Q, including Part I, Item 2. "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the financial statements and the related notes. If any of the following risks actually occur, it could harm our business, prospects, financial condition, and results of operations and future prospects. In such an event, the market price of our Class A common stock could decline and you could lose all or part of your investment. This Quarterly Report on Form 10-Q also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of factors that are described below and elsewhere in this Quarterly Report. Risks Related to Our Business and Industry If we fail to keep existing users or add new users, or if our users decrease their level of engagement with our products or do not convert to paying users, our revenue, financial results and business may be significantly harmed. The size of our user base and our users' level of engagement and paid conversion are critical to our success. Our financial performance has been and will continue to be significantly determined by our success in adding, keeping and engaging users of our products and converting them into paying subscribers who remain continuing paying subscribers. We expect that the size of our user base will fluctuate or decline in one or more markets from time to time. If people do not perceive our products to be useful, effective, reliable, and/or trustworthy, we may not be able to attract or keep users or otherwise maintain or increase the frequency and duration of their engagement or the percentage of users that are converted into or remain paying subscribers. There is no guarantee that we will not experience an erosion of our user or subscriber base or engagement levels. User engagement can be difficult to measure, particularly as we introduce new and different products and services. Any number of factors can negatively affect user stickiness, growth, engagement and conversion, including if: users increasingly engage with other competitive products or services instead of our own; user behavior on any of our products changes, including decreases in the frequency and duration of use of our products and services; users feel that their experience is diminished as a result of the decisions we make with respect to the frequency, prominence, format, size and quality of ads that we display; users become concerned about our user data practices or other matters related to privacy, security and the sharing of user data; users lose confidence in our ability to teach language or there is a decrease in user stickiness as a result of users no longer being interested in pursuing online language learning or reaching a point where they feel our product cannot advance their language ability; users are no longer willing to pay for subscriptions or in-app purchases or we are unable to increase the price of our subscriptions or in-app purchases; users have difficulty installing, updating or otherwise accessing our products on mobile devices as a result of actions by us or third parties that we rely on to distribute our products and deliver our services; we fail to introduce new features, products or services that users find engaging or that are well received, or if we introduce new products or services, or make changes to existing products and services, that are not favorably received or that we are not able to monetize; third-party initiatives designed to attract and keep users and increase engagement are unsuccessful or discontinued, whether as a result of actions by us, third parties or otherwise; third-party initiatives that may enable greater use of our products, including low-cost or discounted data plans, are discontinued; we adopt terms, policies or procedures related to areas such as user data or advertising that are perceived negatively by our users or the general public; we fail to combat inappropriate or abusive activity on our platform; we fail to provide adequate customer service to users, marketers or other partners; we fail to protect our brand image or reputation; we, our partners, or companies in our industry are the subject of adverse media reports or other negative publicity, including as a result of our or their user data practices; technical or other problems prevent us from delivering our products in a rapid and reliable manner or otherwise affect the user experience, such as unplanned site outages due to our failure or the failure of third-party systems we rely on, security breaches, distributed denial-of-service attacks or failure to prevent or limit spam or similar content; there is decreased engagement with our products as a result of internet shutdowns or other actions by governments that affect the accessibility of our products in any of our markets; there is decreased engagement with our products, or failure to accept our terms of service, as part of changes that we have implemented, or may implement, in the future in connection with regulations, regulatory actions or otherwise; there is decreased engagement with our products as a result of changes in prevailing social, cultural or political preferences in the markets where we operate; or there are changes mandated by legislation, regulatory authorities or litigation that adversely affect our products or users. From time to time, certain of these factors have negatively affected user stickiness, growth and engagement to varying degrees. If we are unable to maintain or increase our user base and user engagement, our revenue and financial results may be materially adversely affected. In addition, we may not experience rapid user growth or engagement in countries that have high mobile device penetration, but due to the lack of sufficient cellular based data networks, consumers rely heavily on Wi-Fi and may not access our products regularly throughout the day. Any decrease in user stickiness, growth or engagement is likely to have a material and adverse impact on our revenue, business, financial condition and results of operations. If our user growth rate slows or declines, we will become increasingly dependent on paid marketing to attract users and our ability to maintain or increase levels of user engagement and monetization in order to drive revenue growth. 45 The online language learning industry is highly competitive, with low switching costs and a consistent stream of new products and entrants, and innovation by our competitors may disrupt our business. The online language learning industry is highly competitive, with a consistent stream of new products and entrants. As a result, new products, entrants and business models are likely to continue to emerge, both in the U.S. and abroad. It is possible that a new product could gain rapid scale at the expense of existing brands through harnessing a new technology (such as generative AI), or a new or existing distribution channel, creating a new or different approach to connecting people or some other means. We compete for learners' time, attention, and share of wallet not only with other online and app-based language learning platforms, but also with offline forms of language learning. Because of the extensibility of the Duolingo platform beyond language learning, we also compete with language learning assessment providers and literacy platforms and may compete with other kinds of online learning platforms in the future. Many of the current and potential competitors, both domestically and internationally, have substantially greater financial, technical, sales, marketing and other resources than we do, as well as in some cases, lower costs. Some competitors offer more differentiated products (for example, online learning as well as physical classrooms and textbooks) that may allow them to more flexibly meet changing customer preferences. Some of our competitors may enjoy better competitive positions in certain geographical regions, user demographics or other key areas that we currently serve or may serve in the future, or in their ability to teach certain languages or to teach speakers of certain languages other languages. These advantages could enable these competitors to offer products that are more appealing to users and potential users than our products, to respond more quickly and/or cost-effectively than us to new or changing opportunities, new or emerging technologies or changes in customer requirements and preferences, or to offer lower prices than ours or to offer free language-learning products or services. There are a number of free online language-learning opportunities to learn grammar, pronunciation, vocabulary (including specialties in areas such as medicine and business), reading and conversation by means of podcasts and mobile applications, audio courses and lessons, videos, games, stories, news, digital textbooks, and through other means, which compete with our products. We estimate that there are thousands of free mobile applications for language learning; free products are provided in at least 50 languages by private companies, universities and government agencies. Low barriers to entry allow start-up companies with lower costs and less pressure for profitability to compete with us. Competitors that are focused more on user acquisition rather than profitability may be able to offer products at significantly lower prices or for free. As free online translation services improve and become more widely available and used, people may generally become less interested in language learning. If we cannot successfully attract users of these free products and convert a sufficient portion of these free users into paying users, our business could be adversely affected. If free products become more engaging and competitive or gain widespread acceptance by the public, demand for our products could decline or we may have to lower our prices, which could adversely impact our revenue and other results. Potential competitors also include larger companies that could devote greater resources to the promotion or marketing of their products and services, take advantage of acquisition or other opportunities more readily or develop and expand their products and services more quickly than we do. For example, in 2020, Apple released "Translate," an iOS translation app developed by Apple for iOS devices, to translate text sentences or speech between several languages. Potential competitors also include established social media companies that may develop products, features, or services that may compete with ours or operators of mobile operating systems and app stores. These social media and mobile platform competitors could use strong or dominant positions in one or more markets, and ready access to existing large pools of potential users and personal information regarding those users, to gain competitive advantages over us. These may include offering different product features, services or pricing models that users may prefer, which may enable them to acquire and engage users at the expense of our user growth or engagement. If we are not able to compete effectively against our current or future competitors and products or services that may emerge, the size and level of engagement of our user base may decrease, which could materially adversely affect our business, financial condition and results of operations. Changes to our existing brand and products, or the introduction of a new brand or products, could fail to attract or keep users or generate revenue and profits. Our ability to keep, increase, and engage our user base and to increase our revenue depends heavily on our ability to continue to evolve our existing brand and products and to create successful new brands and products. We may introduce significant changes to our existing brand and products, or acquire or introduce new and unproven brands, products and product extensions, including using technologies with which we have little or no prior development or operating experience or for which the regulatory environment is still unsettled. In addition, we often introduce a new product and delay its monetization until the product is more mature and the user base is better established. We have also invested, and expect to continue to invest, significant resources in growing our products to support increasing usage as well as new lines of business, new products, new product extensions and other initiatives to generate revenue. For example, in 2022, we launched our Math App, and in 2023 we launched our Music course, and at that time integrated both into the Duolingo App. However, neither of these has generated material revenue for us. More recently, we launched Duolingo Max which is powered by generative AI technology. There is no guarantee that investing in new lines of business, new products, new product features, new product extensions and other initiatives will succeed. If our new or enhanced brands, products, features or product extensions fail to engage users, we may fail to attract or keep users or to generate sufficient revenue, operating margin, or other value to justify our investments, and our business may be materially adversely affected. We have had operating losses in the past and we may not be able to achieve or maintain profitability in the future. We have recently achieved profitability, which we may be unable to sustain. Although our revenue has increased each quarter since the first quarter of 2018, there can be no assurances that it will continue to do so or that our margins will not decline over time. Our costs of revenues or operating expenses may continue to increase in the future as we increase our sales and marketing efforts and continue to invest in the development of products and services. These efforts may be costlier than we expect and we cannot guarantee that we will be able to increase our revenue to offset our operating expenses. Our revenue growth may slow or our revenue may decline for a number of other possible reasons, including reduced demand for our

products or services, increased competition, a decrease in the growth or reduction in size of our overall market, or if we fail for any reason to capitalize on our growth opportunities. If we are unable to maintain profitability in the future, it could materially adversely affect our business, financial condition and results of operations. We have grown rapidly in recent years and have limited operating experience at our current scale of operations. If we are unable to manage our growth effectively, our brand, company culture and financial performance may suffer. We have experienced rapid growth and demand for our services since inception. We have expanded our operations rapidly and have limited operating experience at our current size. As we have grown, we have increased our employee headcount and we expect headcount growth to continue for the foreseeable future. From December 31, 2018 to September 30, 2024, our headcount grew from approximately 140 employees to approximately 720 employees. Further, as we grow, our business becomes increasingly complex. To effectively manage and capitalize on our growth, we must continue to expand our sales and marketing, focus on innovative product and content development, upgrade our management information systems and other processes, and obtain more space for our expanding staff. Our continued growth could strain our existing resources, and we could experience ongoing operating difficulties in managing our business across numerous jurisdictions, including difficulties in hiring, training, and managing a diffuse and growing employee base. Failure to scale and preserve our company culture with our growth could harm our future success, including our ability to retain and recruit personnel and to effectively focus on and pursue our corporate objectives. If our management team does not effectively scale with our growth, we may experience erosion to our brand, the quality of our products and services may suffer, and our company culture may be harmed. Moreover, we have been, and may in the future be, subject to legacy claims or liabilities arising from our systems and controls, content or workforce in earlier periods of our rapid development. Because we have a limited history operating our business at its current scale, it is difficult to evaluate our current business and future prospects, including our ability to plan for and model future growth. Our limited operating experience at this scale, combined with the rapidly-evolving nature of the market in which we operate, substantial uncertainty concerning how these markets may develop, and other economic factors beyond our control, reduces our ability to accurately forecast quarterly or annual revenue. Failure to manage our future growth effectively could have a material adverse effect on our business, financial condition, and operating results. Our costs are continuing to grow, and some of our investments have the effect of reducing our operating margin and profitability. If our investments are not successful, our business and financial performance could be harmed. Historically, our costs have increased each year since 2011 and we anticipate that our expenses will continue to increase in the future as we broaden our user base, develop and implement new products, market new and existing products and promote our brands, continue to expand our technical infrastructure, and continue to hire additional employees and contractors to support our expanding operations, including our efforts to focus on privacy, safety, and security. In addition, from time to time we may be subject to settlements, judgments, fines, or other monetary penalties in connection with legal and regulatory developments that may be material to our business. We may also invest in new platforms and technologies. Some of these investments may generate only limited revenue and reduce our operating margin and profitability. If these efforts are not successful, our ability to grow revenue will be harmed, which could materially adversely affect our business and financial performance. Our quarterly operating results and other operating metrics may fluctuate from quarter to quarter, which makes these metrics difficult to predict. Our quarterly operating results and other operating metrics have fluctuated in the past and may continue to fluctuate seasonally, and from quarter to quarter, which makes them difficult to predict. Our financial condition and operating results in any given quarter can be influenced by numerous factors, many of which we are unable to predict or are outside of our control, including, for example: the timing, size and effectiveness of our research and development efforts; the timing, size and effectiveness of our marketing efforts; the timing and success of new product, service and feature introductions by us or our competitors or any other change in the competitive landscape of our market; fluctuations in the rate at which we attract new users, the level of engagement of such users and the propensity of such users to subscribe to our brands or to purchase a la carte features; successful expansion into international markets; errors in our forecasting of the demand for our products and services, which could lead to lower revenue or increased costs, or both; increases in sales and marketing, product development or other operating expenses that we may incur to grow and expand our operations and to remain competitive; the diversification and growth of our revenue sources; our ability to maintain gross margins and operating margins; fluctuations in currency exchange rates and changes in the proportion of our expenses denominated in foreign currencies; changes in our effective tax rate; changes in accounting standards, policies, guidance, interpretations, or principles; our development and improvement of the quality of the Duolingo language app and Duolingo English Test, other Duolingo experiences, including, enhancing existing and creating new products, services, technology and features; the continued development and upgrading of our technology platform; system failures or breaches of security or privacy; our ability to obtain, maintain, protect and enforce intellectual property rights and successfully defend against claims of infringement, misappropriation or other violations of third-party intellectual property; adverse litigation judgments, settlements, or other litigation-related costs; changes in the legislative or regulatory environment, including with respect to privacy, intellectual property, consumer product safety, and advertising, or enforcement by government regulators, including fines, orders, or consent decrees; and changes in business or macroeconomic conditions, lower consumer confidence in our business or in the online learning industry generally, recessionary conditions, increased inflation, increased interest rates, increased unemployment rates, stagnant or declining wages, political unrest, armed conflicts, or natural disasters. Any one of the factors above or the cumulative effect of some of the factors above may result in significant fluctuations in our results of operations. The variability and unpredictability of our quarterly operating results or other operating metrics could result in our failure to meet our expectations or those of analysts that cover us or investors with respect to revenue or other operating results for a particular period. If we fail to meet or exceed such expectations, the market price of our Class A common stock could fall substantially, and we could face costly lawsuits, including securities class action suits. Our user metrics and other operating metrics are subject to inherent challenges in measurement, and real or perceived inaccuracies in those metrics may negatively affect our reputation and our business. We track certain key operational metrics and non-GAAP financial measures, including MAUs, DAUs, paid subscribers, subscription bookings, total bookings, Adjusted EBITDA and free cash flow, to evaluate growth trends, measure our performance, and make strategic decisions. Our user metrics are calculated using internal company data gathered on an analytics platform that we developed and operate, have not been validated by an independent third party and may differ from estimates or similar metrics published by third parties due to differences in sources, methodologies, or the assumptions on which we rely. Our user metrics are also affected by technology on certain mobile devices that automatically runs in the background of our application when another phone function is used, and this activity can cause our system to miscount the user metrics associated with such an account. We continually seek to improve the accuracy of and our ability to track such data, but given the complexity of the systems involved and the rapidly changing nature of mobile devices and systems, we expect to continue to encounter challenges, particularly if we continue to expand in parts of the world where mobile data systems and connections are less stable. In addition, we may improve or change our methodologies for tracking these metrics over time, which could result in unexpected changes to our metrics, including the metrics we publicly disclose. As a result, while any future periods may benefit from such improvement or change, prior periods may not be as accurate or comparable, or we may need to adjust such prior periods. The methodologies used to measure these metrics require significant judgment and are also susceptible to algorithm or other technical errors. In addition, our methodologies for tracking these metrics may change over time, which could result in unexpected changes to our metrics, including the metrics we publicly disclose. If the internal systems and tools we use to track these metrics undercount or overcount performance or contain algorithmic or other technical errors, the data we report may not be accurate. While these numbers are based on what we believe to be reasonable estimates of our metrics for the applicable period of measurement, there are inherent challenges in measuring how our products are used across large populations globally. Errors or inaccuracies in our metrics or data could also result in incorrect business decisions and inefficiencies. For instance, if a significant understatement or overstatement of active users were to occur, we may expend resources to implement unnecessary business measures or fail to take required actions to attract a sufficient number of users to satisfy our growth strategies. Our efforts to address technical issues in our ability to record such data and improve our accuracy may not always be successful, and given the complexity of the systems involved and the rapidly changing nature of mobile devices and systems, we expect these issues to continue, particularly if we continue to expand in parts of the world where mobile data systems and connections are less stable. If our operational metrics are not accurate representations of our business, or if investors do not perceive these metrics to be accurate, or if we discover material inaccuracies with respect to these figures, our reputation may be significantly harmed, our stock price could decline, we may be subject to stockholder litigation, and our business, financial condition, and results of operations could be materially adversely affected. We rely on third-party platforms such as the Apple App Store and the Google Play Store to distribute our products and collect payments. If we are unable to maintain a good relationship with such platform providers, if their terms and conditions or pricing changes to our detriment, if we violate, or if a platform provider believes that we have violated, the terms and conditions of its platform, or if any of these platforms loses market share or falls out of favor or is unavailable for a prolonged period of time, our business will suffer. Our products depend on mobile app stores and other third parties such as data center service providers, as well as third party payment aggregators, computer systems, internet transit providers and other communications systems and service providers. Our mobile applications are almost exclusively accessed through and depend on the Apple App Store and the Google Play Store. We depend on Apple and Google approving our mobile applications to be distributed on their respective platforms. While our mobile applications are generally free to download from these stores, we offer our users the opportunity to purchase subscriptions and certain a la carte features through these applications. We determine the prices at which these subscriptions and features are sold. Purchases of these subscriptions and features via our mobile applications are mainly processed through the in-app payment systems provided by Apple and Google. As of September 30, 2024 we paid Apple and Google, as applicable, a meaningful share (generally 15-30%) of the payments we receive from transactions processed through in-app payment systems. In the nine months ended September 30, 2024, we derived 60% of our revenue and 62% of our total bookings from the Apple App Store, and 20% of our revenue and 19% of our total bookings from the Google Play Store. The timing of their payments also may change, which may negatively impact our cash receipts and working capital. Any interruption, even temporary, in their distribution platforms or ability to accept customer payments, may have material impacts on our business and operations. We are subject to the standard policies and terms of service of third-party platforms, which govern the promotion, distribution, content, monetization and operation generally of apps on the platform. Each platform provider has broad discretion to make changes to its operating systems or payment services or change the manner in which their mobile operating systems function and to change and interpret its terms of service and other policies with respect to us and other developers, and those changes may be unfavorable to us. For example, such changes could limit, eliminate or otherwise interfere with our products, our ability to distribute our applications through their stores, our ability to update our applications, including to make bug fixes or other feature updates or upgrades, the features we provide, the manner in which we market our in-app products, our ability to access native functionality or other aspects of mobile devices, and our ability to access information about our users that they collect. In addition, our distribution agreements with Apple and Google are generally terminable by Apple or Google without cause with 30 days prior written notice (to the extent allowed by applicable local law). Apple and Google may also terminate our agreements with them immediately (unless a longer period is required by applicable law) under certain circumstances, including upon our uncurbed breach of such agreements. To the extent Apple, Google or other third party platform providers on which we rely make such changes or terminate our agreements with them, our business, financial condition and results of operations could be materially adversely affected. A platform provider may also change its fee structure, add fees associated with access to and use of its platform, alter how we are able to advertise on the platform, change how the personal information of its users is made available to application developers on the platform, limit the use of personal information for advertising purposes, or restrict how users can share information with their friends on the platform or across platforms. For example, in December 2017, Apple revised its App Store Guidelines to require the disclosure of the odds of receiving certain types of virtual items from a loot box (or similar mechanisms that offer a paid license to randomized virtual items) before customers purchase a license for the virtual items, and in May 2019 Google revised its Play Store policies to require similar disclosures. As another example, in April 2021 Apple released an update of iOS that requires its users, on an app-by-app basis, to explicitly opt-in to the use of identifier-for-advertising, a device identifier assigned by Apple to each of its devices and used by advertisers to attribute app installs to advertising campaigns, target users through user acquisition, and deliver targeted ads. This led to a reduction in the use of identifiers, and a more challenging environment for publishers and advertisers on iOS devices. If we violate, or a platform provider believes we have violated, its terms of service (or if there is any change or deterioration in our relationship with these platform providers), that platform provider could limit or discontinue our access to the platform. A platform provider could also limit or discontinue our access to the platform if it establishes more favorable relationships with one or more of our competitors or it determines that we are a competitor. Any limit or discontinuation of our access to any platform could significantly reduce our ability to distribute our products to users, decrease the size of the user base we could convert into paying users, or decrease the payments we derive from paying users or advertisers, each of which would materially and adversely affect our business, financial condition and results of operations. We also rely on the continued popularity, customer adoption, and functionality of third-party platforms. In the past, some of these platform providers have been unavailable for short periods of time or experienced issues with their in-app purchasing functionality. In addition, we are reliant on accurate and timely reporting from these third-party platforms to accurately report our financials. If any of these events occur on a prolonged, or even short-term, basis or other similar issues arise that impact users' ability to access our app, access social features or our ability to get accurate financial data, our business, financial condition, results of operations or reputation may be harmed. We rely on third-party hosting and cloud computing providers, like Amazon Web Services (AWS) and Google Cloud, to operate certain aspects of our business. A significant portion of our product traffic is hosted by a limited number of vendors, and any failure, disruption or significant interruption in our network or hosting and cloud services could adversely impact our operations and harm our business. Our technology infrastructure is critical to the performance of our products and to user satisfaction, as well as our corporate functions. Our products and company systems run on a complex distributed system, or what is commonly known as cloud computing. We own, operate and maintain elements of this system, but significant elements of this system are operated by third-parties that we do not control and which would require significant time and expense to replace. We expect this dependence on third-parties to continue. We have suffered interruptions in service in the past, including when releasing new software versions or bug fixes, and if any such interruption were significant and/or prolonged it could adversely affect our business, financial condition, results of operations or reputation. In particular, a significant portion, if not almost all, of our product traffic, data storage, data processing and other computing services and systems is hosted by AWS and Google Cloud. AWS and Google Cloud provide us with computing and storage capacity pursuant to an agreement that continues until terminated by either party. The agreements require AWS and Google Cloud to provide us their standard computing and storage capacity and related support in exchange for timely payment by us. We have experienced, and may in the future experience, disruptions, outages and other performance problems due to a variety of factors, including infrastructure changes, human or software errors and capacity constraints. If a particular application is unavailable when users attempt to access it or navigation through a product is slower than they expect, users may stop using the application and may be less likely to return to the application as often, if at all. Any failure, disruption or interference with our use of hosted cloud computing services and systems provided by third-parties, like AWS or Google Cloud, could adversely impact our business, financial condition or results of operations. For example, on December 7, 2021, an outage of the AWS platform caused Duolingo to go offline for over 5 hours. To the extent we do not effectively respond to any such interruptions, upgrade our systems as needed and continually develop our technology and network architecture to accommodate traffic, our business, financial condition or results of operations could be adversely affected. Furthermore, our disaster recovery systems and those of third-parties with which we do business may not function as intended or may fail to adequately protect our critical business information in the event of a significant business interruption, which may cause interruption in service of our products, security breaches or the loss of data or functionality, leading to a negative effect on our business, financial condition or results of operations. In addition, we depend on the ability of our users to access the internet. Currently, this access is provided by companies that have significant market power in the broadband and internet access marketplace, including incumbent telephone companies, cable companies, mobile communications companies, government-owned service providers, device manufacturers and operating system providers, any of whom could take actions that degrade, disrupt or increase the cost of user access to our products or services, which would, in turn, negatively impact our business. The adoption or repeal of any laws or regulations that adversely affect the growth, popularity or use of the internet, including laws or practices limiting internet neutrality, could decrease the demand for, or the usage of, our products and services, increase our cost of doing business and adversely affect our results of operations. We derive a portion of our revenues from advertisements. If we are unable to continue to compete for these advertisements, or if any events occur that negatively impact our relationships with advertising networks, our advertising revenues and operating results would be negatively impacted. We generate advertising revenue from the sale of display and video advertising delivered

through advertising impressions. During the three and nine months ended September 30, 2024, approximately 7.5% of our total revenues were derived from advertising. We generally enter into arrangements with the major programmatic advertising networks to monetize our advertising inventory. We need to maintain good relationships with these advertising networks to provide us with a sufficient inventory of advertisements. Online advertising, including through mobile applications, is an intensely competitive industry. Many large companies, such as Amazon, Facebook and Google, invest significantly in data analytics to make their websites and platforms more attractive to advertisers. Our advertising revenue is primarily a function of the number and hours of engagement of our free users and our ability to provide innovative advertising products that are relevant to our users, maintain or increase user engagement and satisfaction with our products, and enhance returns for our advertising partners. If our relationship with any advertising partners terminates for any reason, or if the commercial terms of our relationships are changed or do not continue to be renewed on favorable terms, or if we cannot source high-quality ads consistent with our brand or product experience, we would need to qualify new advertising partners, which could negatively impact our revenues, at least in the short term. In addition, internet-connected devices and operating systems controlled by third parties increasingly contain features that allow device users to disable functionality that allows for the delivery of advertising on their devices or reduce the ability to provide personalized or targeted advertising, which results in less valuable ads. Device and browser manufacturers may include or expand these features as part of their standard device specifications. For example, when Apple announced that UDID, a standard device identifier used in some applications, was being superseded and would no longer be supported, application developers were required to update their apps to utilize alternative device identifiers such as universally unique identifier, or, more recently, identifier-for-advertising, which simplifies the process for Apple users to opt out of behavioral targeting. Furthermore, laws and regulations may also make it more difficult to deliver personalized or targeted advertising or impose requirements that result in more users making elections to block our ability to deliver targeted ads. If users do not elect to participate in functionality that supports the delivery of targeted advertising on their devices, our ability to deliver effective advertising campaigns could suffer, which could cause our business, financial condition, or results of operations to suffer. While the described changes did not result in material adverse impacts to us, the impact of similar potential future operating systems changes or potential future regulation on targeted advertising is highly uncertain. If we are not able to maintain the value and reputation of our brand, our ability to expand our base of users may be impaired, and our business and financial results may be harmed. We believe that our brand has significantly contributed to our word of mouth virality, which has in turn contributed to the success of our business. We also believe that maintaining, protecting and enhancing our brand is critical to expanding our base of users and, if we fail to do so, our business, financial condition and results of operations could be materially adversely affected. We believe that the importance of brand recognition will continue to increase, given the growing number of language learning applications, or "apps," and the low barriers to entry for companies offering language learning products and services. Many of our new users are referred by existing users or are acquired by content created by unrelated third parties about our products, services and brand. Maintaining our brand will depend largely on our ability to continue to provide useful, reliable, trustworthy and innovative products, which we may not do successfully. Further, we have and may in the future experience media, legislative, or regulatory scrutiny of our actions or decisions regarding user privacy, encryption, content, contributors, advertising and other issues, which may materially adversely affect our reputation and brand. In addition, we may fail to respond expeditiously or appropriately to objectionable content within our app or practices by users, or to otherwise address user concerns, which could erode confidence in our brand. Maintaining and enhancing our brand will require us to make substantial investments and these investments may not be successful. Our growth and profitability rely, in part, on our ability to attract and keep users through cost-effective marketing efforts, including through our social media presence, use of social media influencers and performance marketing. Any failure in these efforts could materially adversely affect our business, financial condition and results of operations. We have increased our marketing expenditures over time in order to attract and keep users and sustain our growth. For the three and nine months ended September 30, 2024 and 2023, our Sales and marketing expenses were \$65.7 million and \$56.7 million, respectively. Evolving consumer behavior can affect the availability of profitable marketing opportunities. For example, as consumers communicate less via email and more via text messaging, messaging apps and other virtual means, the reach of email campaigns designed to attract new and repeat users (and keep current users) for our products is adversely impacted. To continue to reach potential users and grow our businesses, we must identify and devote our overall marketing activities and expenditures to newer advertising channels, such as mobile and online video platforms as well as targeted campaigns in which we communicate directly with potential, former and current users via new virtual means. For example, in 2021 and 2022, we expanded our activities on the TikTok platform. Generally, the opportunities in and sophistication of newer advertising channels are relatively undeveloped and unproven, and there can be no assurance that we will be able to continue to appropriately manage and fine-tune our marketing efforts in response to these and other trends in the advertising industry. Furthermore, these newer advertising channels often change rapidly and can be subject to disruptions for reasons beyond our control (for example potential U.S. governmental restrictions on the TikTok platform). Any failure to successfully manage our marketing efforts on, or disruptions to, social media channels that we have come to depend on for marketing could materially adversely affect our business, financial condition and results of operations. We are subject to certain risks as a mission-based company. We believe that a critical contributor to our success has been our commitment to make free language learning available worldwide in an effort to help people throughout the world improve their economic outcomes. The mission of Duolingo is a significant part of our business strategy and who we are as a company. We believe that Duolingo users value our commitment to our mission. However, because we hold ourselves to such high standards, and because we believe our users have come to have high expectations of us, we may be more severely affected by negative reports or publicity if we fail, or are perceived to have failed, to live up to Duolingo's mission. For example, maintaining a free version of the app that is both effective and enjoyable is central to Duolingo's mission. As a result, our brand and reputation may be negatively affected by actions we take that are viewed as contrary to that mission, such as features that are only available to paid subscribers or changes to the free offering that are viewed as undermining how fun or effective the free offering is. In these or other circumstances, the damage to our reputation may be greater than to other companies that do not share similar values with us, and it may take us longer to recover from such an incident and gain back the trust of our users. We have made and in the future may make decisions regarding our business and products in accordance with Duolingo's mission and values that may reduce our short- or medium-term operating results if we believe those decisions are consistent with the mission and will improve the aggregate user experience. Although we expect that our commitment to Duolingo's mission will, accordingly, improve our financial performance and value over the long term, these decisions may not be consistent with the expectations of investors and any longer-term benefits may not materialize within the time frame we expect or at all, which could harm our business, revenue and financial results. Unfavorable media coverage could materially adversely affect our business, brand image or reputation. Unfavorable publicity or media reports regarding us, our privacy practices, our social media activities, data security compromises or breaches, product changes, product or service quality or features, litigation or regulatory activity or regarding the actions of our partners, our users, our employees or other companies in our industry, could materially adversely affect our brand image or reputation, regardless of the veracity of such publicity or media reports. If we fail to protect our brand image or reputation, we may experience material adverse effects to the size, demographics, engagement, and loyalty of our user base, resulting in decreased revenue, fewer app installs (or increased app uninstalls), or slower user growth rates. Damage to our brand or reputation could also adversely affect educational institutions' willingness to accept the Duolingo English Test, which in turn could slow the growth of, or reduce, our revenue from the Duolingo English Test. In addition, if securities analysts or investors perceive any media coverage of us to be negative, the price of our Class A common stock may be materially adversely affected. Any of the foregoing could materially adversely affect our business, financial condition and results of operations. Our future success depends on the continuing efforts of our key employees and our ability to attract and retain highly skilled personnel and senior management. We currently depend on the continued services and performance of our key personnel, including Luis von Ahn and Severin Hacker. If one or more of our executive officers or key employees were unable or unwilling to continue their employment with us, we might not be able to replace them easily, in a timely manner, or at all. The risk that competitors or other companies may poach our talent increases as we continue to build our brands and become more well-known. Our key personnel have been, and may continue to be, subject to poaching efforts by our competitors and other internet and high-growth companies, including well-capitalized players in the social media and consumer internet space. The loss of key personnel, including members of management as well as key engineering, product development, design and marketing personnel, could disrupt our operations and have a material adverse effect on our business. The success of our brand also depends on the commitment of our key personnel to our mission. To the extent that any of our key personnel act in a way that does not align with our mission, our reputation could be materially adversely affected. See "Our employees, consultants and third party providers could engage in misconduct that materially adversely affects us." Our future success will depend upon our continued ability to identify, hire, develop, motivate, and retain highly skilled individuals across the globe, with the continued contributions of our senior management being especially critical to our success. Competition for well-qualified, highly skilled employees in our industry is intense and our continued ability to compete effectively depends, in part, upon our ability to attract and retain new employees. The programs we have established to attract new employees and provide incentives to retain existing employees, particularly our senior management, may result in additional expenses and may not have the desired effect. For example, there has been increasing scrutiny on diversity, equity, and inclusion ("DEI") initiatives and activism by groups, both those seeking to promote and constrain such initiatives, which may require us to incur costs, subject us to litigation or activism or result in adverse impacts on employee recruitment, engagement, and retention. We cannot guarantee that we will be able to attract new employees or retain the services of our senior management or any other key employees in the future. Additionally, we believe that our culture and core values have been, and will continue to be, a key contributor to our success and our ability to foster the innovation, creativity and teamwork we believe we need to support our operations. If we fail to effectively manage our hiring needs and successfully integrate our new hires, or if we fail to effectively manage remote work arrangements, our efficiency and ability to meet our forecasts and our ability to maintain our culture, employee morale, productivity and retention could suffer, and our business, financial condition and results of operations could be materially adversely affected. Finally, effective succession planning is also important to our future success. If we fail to ensure the effective transfer of senior management knowledge and smooth transitions involving senior management across our various businesses, our ability to execute short and long term strategic, financial and operating goals, as well as our business, financial condition, and results of operations generally, could be materially adversely affected. Our employees, consultants and third party providers could engage in misconduct that materially adversely affects us. Our employees, consultants and third party providers could engage in misconduct that materially adversely affects us. Misconduct by these parties could include intentional failures to comply with the applicable laws and regulations in the U.S. and abroad, report financial information or data accurately or disclose unauthorized activities to us. These laws and regulations may restrict or prohibit a wide range of pricing, discounting and other business arrangements. Such misconduct could result in legal or regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter misconduct by these parties, and any other precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses, or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could result in the imposition of significant civil, criminal and administrative penalties, which could have a significant impact on our business. Whether or not we are successful in defending against such actions or investigations, if any of our employees, consultants or third party providers were to engage in or be accused of misconduct, we could be exposed to legal liability, incur substantial costs, our business and reputation could be materially adversely affected, and we could fail to retain key employees. See "Unfavorable media coverage could materially adversely affect our business, brand image or reputation." If the recognition by schools, governments, and other institutions of the value of technology-based assessment does not continue to grow, or if such institutions reduce their reliance on the Duolingo English Test or assessment in general, our ability to generate revenue from our assessment, including our Duolingo English Test, could be impaired. The success of the Duolingo English Test, from which we derived approximately 6.4% of our total revenue for the year ended September 30, 2024, depends in part upon the continued recognition and acceptance by schools, governments, and other institutions of technology-based assessment, such as the Duolingo English Test, and upon the continued utilization of assessment in general. As a result of the COVID-19 pandemic, in 2020, a number of universities waived standardized test requirements for admissions requirements and some universities plan to phase out requirements for standardized testing altogether. In addition, some have questioned the validity of language assessments taken online. If schools, governments, and other institutions reduce their reliance, or altogether cease to use standardized testing as part of admissions processes or otherwise, or reduce or eliminate reliance on standardized testing, it would have a material adverse effect on our Duolingo English Test business, which could adversely affect our revenues and results of operations. For example, a country's political decision to cap or reduce immigration, particularly international student immigration, could reduce the number of Duolingo English Tests that are taken for the purpose of immigration to that country. Likewise, if trends in international education shift away from English-speaking destination countries where the Duolingo English Test is accepted, we may see a reduction in the number of Duolingo English Tests taken. See "We operate in various international markets, including certain markets in which we have limited experience. As a result, we face additional risks in connection with certain of our international operations." Similarly, we continually seek to expand the number of schools, governments, and other institutions that accept the Duolingo English Test, including through direct engagement, government tenders, and other channels. If we are unable to do so, or if schools, governments, and other institutions rescind their acceptance of the Duolingo English Test, it may have a material adverse effect on our ability to grow the number of tests taken through the Duolingo English Test. For example, loss of confidence in the Duolingo English Test's validity, security, or other characteristics could lead to a reduction in the number of accepting institutions, which could in turn reduce the appeal of the Duolingo English Test to test takers and adversely affect our revenues and results of operations. See "Unfavorable media coverage could materially adversely affect our business, brand image or reputation." We operate in various international markets, including certain markets in which we have limited experience. As a result, we face additional risks in connection with certain of our international operations. Both our mobile learning application and the Duolingo English Test are available all over the world. Operating internationally, particularly in countries in which we have limited experience, exposes us to a number of additional risks, including: operational and compliance challenges caused by distance, language and cultural differences; the cost and resources required to localize our platform and services, which often requires the translation of our platform into foreign languages and adaptation for local practices and regulatory requirements; difficulties in staffing and managing international operations; differing levels of social and technological acceptance of our products or lack of acceptance of them generally; foreign currency fluctuations, and in particular, decreases in the value of foreign currencies relative to the U.S. dollar; restrictions on the transfer of funds among countries and back to the U.S., as well as costs associated with repatriating funds to the U.S.; differing and potentially adverse tax laws, including resulting from the complexities of foreign corporate income tax systems, value added tax ("VAT") regimes, tax withholding rules, and other indirect taxes, tax collection or remittance obligations, and restrictions on the repatriation of earnings; multiple, conflicting and changing laws, rules and regulations, and difficulties understanding and ensuring compliance with those laws, rules and regulations by both our employees and our users, over whom we exert no control; compliance challenges due to different laws and regulatory environments, particularly in the case of privacy, data security, and content, which are complex, sometimes inconsistent, and subject to unexpected changes; competitive environments that favor local businesses; reduced or varied protection for our intellectual property rights in some countries; low usage and/or penetration of internet-connected consumer electronic devices; political tension or social unrest and economic instability, particularly in countries in which we operate; trade sanctions, political unrest, terrorism, war, health and safety epidemics or the threat of any of these events; and breaches or violation of any anti-corruption laws, rules or regulations applicable to our business, including but not limited to the Foreign Corrupt Practices Act of 1977, as amended. Moreover, geopolitical tensions or regulatory uncertainty in countries in which we operate, such as China, may prevent us from operating in certain countries or increase our costs of operating in those countries. Additionally, if enforcement authorities demand access to our user data or require that we obtain hard to obtain local licenses, our failure to comply with those demands or obtain those licenses could lead to our inability to operate in such countries or other punitive acts. In addition to the factors listed above, we have invested to expand our operations in China, which is an intensely competitive market, both on the consumer side and from a talent perspective. We expect to continue to incur significant expenses to operate our business in China, and we may not achieve profitability in that market. As we expand our operations in China, the above factors, sentiment of the workforce in China, and China's policy towards foreign direct investment and for profit educational technology companies may particularly impact our operations in China. Further, as we expand our operations in China, we expect to continue to make modifications to the way our website, mobile apps, offerings, and features function in China as compared to other countries. In addition, our business

practices in China need to comply with local laws and regulations, which may be interpreted and enforced in ways that are different from our interpretation, and/or create obligations on us that are costly to meet or conflict with laws in other jurisdictions. For instance, in the fall of 2021 our language learning application became unavailable for download on most app stores in China. While this was temporary and we were reinstated in May 2022, it serves as an example of how the Chinese regulatory regime could adversely impact our efforts in China. Our office of over 30 employees in Beijing makes it easier for the Chinese authorities to bring enforcement actions against us. The occurrence or impact of any or all of the events described above could materially adversely affect our international operations, which could in turn materially adversely affect our business, financial condition and results of operations. 58 An economic downturn or economic uncertainty may adversely affect consumer discretionary spending and demand for our products and services. Our products and services may be considered discretionary items for consumers. Factors affecting the level of consumer spending for such discretionary items include general economic conditions, and other factors, such as consumer confidence in future economic conditions, fears of recession, inflation, the availability and cost of consumer credit, levels of unemployment, and tax rates. In recent years, the U.S. and other significant economic markets have experienced cyclical downturns and worldwide economic conditions remain uncertain. As global economic conditions continue to be volatile or economic uncertainty remains, trends in consumer discretionary spending also remain unpredictable and subject to reductions. To date, our business has operated almost exclusively in a relatively strong economic environment and, therefore, we cannot be sure the extent to which we may be affected by recessionary conditions. Unfavorable economic conditions may lead consumers to delay or reduce purchases of our products and consumer demand for our products may not grow as we expect. Our sensitivity to economic cycles and any related fluctuation in consumer demand for our products and services could materially adversely affect our business, financial condition, and results of operations. In addition, political instability or adverse political developments, could harm our business, financial condition and results of operations. Security breaches of our networks, systems or applications, improper unauthorized access to or disclosure of our proprietary data or user-related data, including personal data, other hacking and social engineering or phishing attacks on our systems or service, or other cyber incidents could disrupt our services or compromise sensitive information related to our business and/or personal data processed by us or on our behalf and expose us to liability, which could harm our reputation and materially adversely affect our business. Our products and services and the operation of our business involve the collection, storage, processing, and transmission of data, including personal data. The information systems that store and process such data, including information systems of third parties, are susceptible to increasing threats of continually evolving cybersecurity risks. In particular, our industry is prone to cyber-attacks by third parties seeking unauthorized access to confidential or sensitive data, including user personal data, or to disrupt our ability to provide services. We face an ever-increasing number of threats to our information systems from a broad range of threat actors, including foreign governments, criminals, competitors, computer hackers, cyber terrorists and politically motivated groups or individuals, and we have previously experienced various attempts to access our information systems. These threats include physical or electronic break-ins, security breaches from inadvertent or intentional actions by our employees, contractors, consultants, and/or other third parties with otherwise legitimate access to our systems, website or facilities, or from cyber-attacks by malicious third parties which could breach our data security and disrupt our systems. There can be no assurance that our cybersecurity risk management program and processes, including our policies, controls or procedures, will be fully implemented, complied with or effective in protecting our systems and information. Any such breach that compromises our information technology systems or the personal data processed on such systems could cause data breaches, interruptions, delays or operational malfunctions, which in turn could have a material adverse effect on our reputation, business, financial condition, results of operations and prospects. Such security breaches or disruptions have occurred on our systems in the past and will occur on our systems in the future. The risks related to a security breach or disruption, including through ransomware, a distributed denial-of-service (DDoS) attack, computer malware, viruses, social engineering (predominantly spear phishing attacks), and general hacking, have become more prevalent in our industry and have generally increased as the number, intensity, and sophistication of attempted attacks and intrusions from around the world have increased. We also regularly encounter attempts to create false or undesirable user accounts and ads or take other actions on our platform for objectionable ends. As a result of our prominence, the size of our user base, the volume of personal data on our systems, the reach and popularity of our social media accounts, and the evolving nature of our products and services (including our efforts involving new and emerging technologies), we may be a particularly attractive target for such attacks, including from highly sophisticated, state-sponsored, or otherwise well-funded criminal actors. Our efforts to address undesirable activity on our platform also increase the risk of retaliatory attacks. Such breaches and attacks on us or our third-party service providers may cause interruptions to the services we provide, degrade the user experience, cause users or marketers to lose confidence and trust in our products and decrease the use of our products or stop using our products in their entirety, impair our internal systems, or result in financial harm to us. Any failure to prevent or mitigate security breaches and unauthorized access to or disclosure of our data or user data, including personal information, content, or payment information from users, or information from marketers, could result in the loss, modification, disclosure, destruction, or other misuse of such data, which could subject us to legal liability and penalties, harm our business and reputation and diminish our competitive position. We may incur significant costs in protecting against or remediating such incidents and as cybersecurity incidents continue to evolve, we may be required to expend significant additional resources to continue to modify or enhance our protective measures or to investigate and remediate any information security vulnerabilities. Our efforts to protect our confidential and sensitive data, the data of our users or other personal information we receive, and to prevent or disable undesirable activities on our platform, may also be unsuccessful due to: malicious code embedded in open-source software, or misconfigurations, software bugs or other technical malfunctions or vulnerabilities in commercial software that is integrated into our (and our service providers') information technology systems; employee, contractor, or vendor error or malfeasance, including defects or vulnerabilities in our service providers' information technology systems or offerings; government surveillance; breaches of physical security of our facilities or technical infrastructure; or other threats that may surface or evolve. Third parties may attempt to fraudulently induce employees or users to disclose information in order to gain access to our data or our users' data. Cyber-attacks, including account take over, have increased. Account take over attacks occur when users re-use passwords from other sites, those sites have data leaks or breaches, and attackers acquire and use credentials from the other site to log in as those users on our site. Cyber-attacks continue to evolve in sophistication and volume, and threat actors are becoming increasingly sophisticated in using techniques and tools, including AI, that circumvent security controls, evade detection, and/or remove forensic evidence, and attacks, and may therefore be difficult to detect for long periods of time. Although we have developed systems and processes that are designed to protect our data and user data, to prevent data loss, to disable undesirable accounts and activities on our platform, and to prevent or detect security breaches, we cannot assure you that such measures will be successful, that we will be able to anticipate or detect all cyber-attacks or other breaches, that we will be able to react to cyber-attacks or other breaches in a timely manner, or that our remediation efforts will be successful. We may incur significant costs in connection with such remediation efforts, including the costs of notifying applicable regulators and affected users, or offering credit monitoring services. We may also incur significant legal and financial exposure, including legal claims, higher transaction fees and regulatory fines and penalties as a result of any compromise or breach of our systems or data security, or the systems and data security of our third party providers. In addition, even though some user accounts are compromised due to user error or breaches unrelated to our products or security (such as during an account take over attack), users or the general public may become less confident in our product as a result of such compromises. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects. In addition, some of our partners may receive or store information provided by us or by our users through mobile or web applications integrated with our applications and we use third-party service providers to store, transmit and otherwise process certain confidential, sensitive or personal information on our behalf. If these third parties fail to adopt or adhere to adequate data security practices, or in the event of a breach of their networks, our data or our users' data may be improperly accessed, used, or disclosed, which could subject us to legal liability. We cannot control such third parties and cannot guarantee that a security breach will not occur on their systems. Although we may have contractual protections with our third-party service providers, contractors and consultants, any actual or perceived security breach could harm our reputation and brand, expose us to potential liability or require us to expend significant resources on data security and in responding to any such actual or perceived breach. Any contractual protections we may have from our third-party service providers, contractors or consultants may not be sufficient to adequately protect us from any such liabilities and losses, and we may be unable to enforce any such contractual protections. While our insurance policies include liability coverage for certain of these matters, subject to retention amounts that could be substantial, if we experience a significant security incident, we could be subject to liability or other damages that exceed our insurance coverage and we cannot be certain that such insurance policies will continue to be available to us on economically reasonable terms, or at all, or that any insurer will not deny coverage as to any future claim. The successful assertion of one or more large claims against us that exceed available insurance coverage, or the occurrence of changes in our insurance policies, including premium increases or the imposition of large deductible or co-insurance requirements, could have a material adverse effect on our financial condition, results of operations, and cash flows. If the security of personal and confidential or sensitive user information that we maintain and store is breached, or otherwise accessed by unauthorized persons, it may be costly to remediate such breach, subject us to regulatory investigations or private party lawsuits, and our reputation could be harmed. We receive, process, store, and transmit personal user and other confidential or sensitive information, including payment card information and personal information of our employees and users. In some cases, we engage third-party service providers to process or store this information. We continuously develop and maintain a security management program designed to mitigate the risk to the confidentiality, integrity and availability of this information, but there can be no assurance that our program will be fully implemented, complied with or effective in protecting our systems and information. We have experienced past incidents (which to our knowledge were immaterial) and cannot guarantee that inadvertent or unauthorized use or disclosure of such information will not occur in the future or that third parties will not gain unauthorized access to such information despite our security management program. When such incidents occur, we may not be able to remedy them, we may be required by law to notify regulators and individuals whose personal information was used or disclosed without authorization, we may be subject to claims against us, including government enforcement actions or investigations, fines and litigation (including class action lawsuits), and we may have to expend significant capital and other resources to mitigate the impact of such events, including developing and implementing protections designed to prevent future events of this nature from occurring. When breaches of our or our third-party service providers' and partners' information technology systems occur or unauthorized access to any of the confidential, sensitive or other personal information we collect or process occurs, the perception of the effectiveness of our security measures, the security measures of our partners and our reputation may be harmed, we may lose current and potential users and the recognition of our various brands and such brands' competitive positions may be diminished, any or all of which might materially adversely affect our business, financial condition and results of operations. In addition even if there has not been an actual breach, the mere allegation of a breach (such as when a third party aggregates publicly available data on our users via data-scraping for example and makes it available) can adversely affect the perception of the effectiveness of our security measures, how safe it is to use our applications and our reputation, which could have similar effects to an actual breach. Our success depends, in part, on our ability to access, protect, collect, and use personal data, and our failure to comply with the varying and rapidly-evolving regulatory framework on privacy and data protection across jurisdictions could result in claims, changes to our business practices, monetary penalties or other forms of liability, increased cost of operations, brand damage reputational harm, or declines in user growth or engagement, or otherwise harm have a material adverse effect on our business. We are subject to a number of risks related to payment cards, including data security breaches and fraud that we or third parties experience or additional regulation, any of which could materially adversely affect our business, financial condition and results of operations. In addition to purchases through the Apple App Store and the Google Play Store, we accept payment from our users through payment card transactions, certain online payment service providers, and mobile payment platforms. The ability to access such payment-related information on a real-time basis without having to proactively reach out to the consumer each time we process an auto-renewal payment or a payment for the purchase of a premium feature on any of our products is critical to our success and a seamless experience for our users. When we or a third party experiences a data security breach involving account data or other payment information, affected cardholders will often cancel or replace their card numbers. In the case of a breach experienced by a third party, the more sizable the third party's customer base and the greater the number of payment cards or accounts impacted, the more likely it is that our users would be impacted by such a breach. To the extent our users are ever affected by such a breach experienced by us or a third party, affected users would need to be contacted to obtain new payment card information and process any pending transactions. It is likely that we would not be able to reach all affected users, and even if we could, some users' new payment card information may not be obtained and some pending transactions may not be processed, which could materially adversely affect our business, financial condition and results of operations. Our third party payment service providers utilize tokenization tools to replace sensitive cardholder information with a stand-in token to help secure individual cardholder bank account details in payment card transactions and to reduce the number of systems that have access to our customers' payment card information. While these tokenization tools can help mitigate the data security risks associated with payment card transactions, it does not eliminate those risks altogether. Even if our users are not directly impacted by a given data security breach, they may lose confidence in the ability of service providers to protect their personal information generally, which could cause them to stop using their payment cards online and choose alternative payment methods that are not as convenient for us or restrict our ability to process payments without significant cost or user effort. Additionally, if we fail to adequately prevent fraudulent payment card transactions, we may face litigation, fines, governmental enforcement action, civil liability, diminished public perception of our security measures, significantly higher payment card-related costs and substantial remediation costs, or refusal by payment card processors to continue to process payments on our behalf, any of which could materially adversely affect our business, financial condition and results of operations. Finally, the passage or adoption of any legislation or regulation affecting the ability of service providers to periodically charge consumers for, among other things, recurring subscription payments may materially adversely affect our business, financial condition and results of operations. We are subject to legislation and regulation regarding the foregoing, such as California's Automatic Renewal Law, and further legislation and regulation, or changes to existing legislation or regulation governing subscription payments and the automatic renewal of subscriptions, are being considered in many states in the US. While we monitor and attempt to comply with these legal developments, we have been in the past, and may be in the future, subject to claims under such legislation or regulation. Our success depends, in part, on the integrity of our information technology systems and infrastructures and on our ability to enhance, expand and adapt these systems and infrastructures in a timely and cost-effective manner. In order for us to succeed, our information technology systems and infrastructures must perform well on a consistent basis. Our products and systems rely on software and hardware that are highly technical and complex, and depend on the ability of such software and hardware to store, retrieve, process and manage immense amounts of data. We have in the past experienced, and we may from time to time in the future experience, system interruptions that make some or all of our systems or data temporarily unavailable and prevent our products from functioning properly for our users; any such interruption could arise for any number of reasons, including software bugs and human errors. Further, our systems and infrastructures are vulnerable to damage from fire, power loss, hardware and operating software errors, cyber-attacks, technical limitations, telecommunications failures, acts of God and similar events. Not all of our systems and infrastructures, including the backup systems we have for certain aspects of our operations, are fully redundant. Our plans and system backups, including our formal disaster recovery plan, do not account for all possible eventualities and our property and business interruption insurance coverage may not be adequate to compensate us fully for any losses that we may suffer. Any interruptions or outages, regardless of the cause, could negatively impact our users' experiences with our products, tarnish our brands' reputations and decrease demand for our products, any or all of which could materially adversely affect our business, financial condition and results of operations. Moreover, even if detected, the resolution of such interruptions may take a long time, during which customers may not be able to access, or may have limited access to, the service. See "Security breaches of our networks, systems or applications, improper unauthorized access to or disclosure of our proprietary data or user-related data, including personal data, other hacking and social engineering or phishing attacks on our systems or service, or other cyber incidents could disrupt our services or compromise sensitive information related to our business and/or personal data processed by us or on our behalf and expose us to liability, which could harm our reputation and materially adversely affect our business." We also continually work to expand and enhance the efficiency and scalability of our technology and network systems to improve the experience of our users, accommodate substantial increases in the volume of traffic to our various products, ensure acceptable load times for our products and keep up with changes in technology and user preferences. Any failure to do so in a timely and cost-effective manner could materially adversely affect our users' experience with our various products and thereby negatively impact the demand for our products, and could increase our costs, either of

which could materially adversely affect our business, financial condition and results of operations. We may experience operational and financial risks in connection with acquisitions. We may seek potential acquisition candidates to add complementary companies, products or technologies. For example, in October 2022, we completed the acquisition for the assets of Gunner Made LLC (a wholly owned entity of PNG Holdings LLC, a design and animation studio based in Detroit, Michigan). The identification of suitable acquisition candidates can be difficult, time-consuming and 63costly, and we may not be able to successfully complete identified acquisitions. We may experience operational and financial risks in connection with historical and future acquisitions if we are unable to properly value prospective acquisitions, especially those with limited operating histories; accurately review acquisition candidates' business practices against applicable laws and regulations and, where applicable, implement proper remediation controls, procedures, and policies; successfully integrate the operations, as well as the accounting, financial controls, management information, technology, human resources and other administrative systems, of acquired businesses with our existing operations and systems; overcome cultural challenges associated with integrating employees from the acquired company into our organization; successfully identify and realize potential synergies among acquired and existing businesses; fully identify potential risks and liabilities associated with acquired businesses, including intellectual property infringement claims, violations of laws, commercial disputes, tax liabilities, litigation or other claims in connection with the acquired company, including claims from terminated employees, former stockholders or other third parties, and other known and unknown liabilities; retain or hire senior management and other key personnel at acquired businesses; and successfully manage acquisition-related strain on our management, operations and financial resources and those of the various brands in our portfolio. Furthermore, we may not be successful in addressing other challenges encountered in connection with our acquisitions. The anticipated benefits of one or more of our acquisitions may not be realized or the value of goodwill and other intangible assets acquired could be impacted by one or more continuing unfavorable events or trends, which could result in significant impairment charges. The occurrence of any of these events could have a material adverse effect on our business, financial condition and results of operations. Additionally, the integration of acquisitions requires significant time and resources, and we may not manage these processes successfully. Our ability to successfully integrate complex acquisitions is unproven, particularly with respect to companies that have significant operations or that develop products with which we do not have prior experience. We may make substantial investments of resources to support our acquisitions, which would result in significant ongoing operating expenses and may divert resources and management attention from other areas of our business. We cannot assure you that these investments will be successful. If we fail to successfully integrate the companies we acquire, we may not realize the benefits expected from the transactions and our business may be harmed. Foreign currency exchange rate fluctuations could adversely affect our results of operations. Our reporting currency and our functional currency is the U.S. dollar, our operating expenses are denominated in the currencies of the countries in which our operations are located, which are primarily in the U.S., China and Germany. Our consolidated results of operations and cash flows are, therefore, subject to fluctuations due to changes in foreign currency exchange rates and may be adversely affected in the future due to changes in foreign exchange rates. In addition, certain of our payment providers translate our payments from local currency into USD at time of settlement, which means that during periods of a strengthening U.S. dollar, our international receipts could be reduced. In addition, as foreign currency exchange rates fluctuate, the translation of our international receipts into U.S. dollars affects the 64period-over-period comparability of our operating results and can result in foreign currency exchange gains and losses. We have not entered into any hedging arrangements with respect to foreign currency risk or other derivative financial instruments, although we may choose to do so in the future. The use of such hedging activities may not offset any or more than a portion of the adverse financial effects of unfavorable movements in foreign exchange rates and may introduce additional risks if we are unable to structure effective hedges with such instruments. Our estimates of market opportunity and forecasts of market growth may prove to be inaccurate, and even if the market in which we compete achieves the forecasted growth, our business could fail to grow at similar rates, if at all. Our market opportunity estimates and expectations about market growth that we use to manage our business and allocate resources are subject to significant uncertainty and are based on assumptions and estimates that may not prove to be accurate. Even if the markets in which we compete meet the size estimates and growth expectations, our business could fail to grow for a variety of reasons, which could adversely affect our results of operations. We are subject to risks associated with the physical impacts of climate change. There are inherent climate-related risks wherever business is conducted. We and our third-party vendors have operations located in areas that have experienced, and are projected to continue to experience, various natural disasters and meteorological phenomena (such as droughts, hurricanes, heatwaves, wildfires, storms, and flooding, among others) or other catastrophic events that may disrupt our operations or those of third parties upon whom we rely, require us to incur additional operating or capital expenditures, or otherwise adversely impact our business, financial condition, or results of operations. Climate change may increase the frequency and/or intensity of such events or contribute to various chronic changes in the physical environment, such as sea-level rise or changes in ambient temperature or precipitation patterns, any of which may also adversely impact our or our third-party's operations. Risks Related to Legal and Regulatory Compliance Our business is subject to complex and evolving U.S. and international laws and regulations. Many of these laws and regulations are subject to change and uncertain interpretation, and could result in claims, changes to our business practices, monetary penalties, increased cost of operations, or declines in user growth or engagement, or otherwise harm our business. We are subject to a variety of laws and regulations in the U.S. and abroad that involve matters that are important to or may otherwise impact our business, including, among others, broadband internet access, online commerce, advertising, user privacy, data protection, intermediary liability, protection of minors, consumer protection, accessibility, immigration and university admissions, taxation and securities law compliance. The introduction of new products, expansion of our activities in certain jurisdictions, or other actions that we may take may subject us to additional laws, regulations or other government scrutiny. In addition, foreign laws and regulations can impose different obligations or be more restrictive than those in the U.S. These U.S. federal, state, and municipal and foreign laws and regulations, which in some cases can be enforced by private parties in addition to government entities, are constantly evolving and can be subject to significant change. In addition, the introduction of new brands and products, or changes to our existing brand and products, may result in new or enhanced governmental or regulatory scrutiny. As a result, the application, interpretation, and enforcement of these laws and regulations are often uncertain, particularly in the new and rapidly-evolving industry in which we operate, and may be interpreted and applied inconsistently from 65state to state and country to country and inconsistently with our current policies and practices. These laws and regulations, as well as any associated inquiries or investigations or any other government actions, may be costly to comply with and may delay or impede the development of new products, require that we change or cease certain business practices, result in negative publicity, increase our operating costs, require significant management time and attention, and subject us to remedies that may harm our business, including fines, demands or orders that require us to modify or cease existing business practices. For example, a variety of laws and regulations govern the ability of users to cancel subscriptions and auto-payment renewals. We have in the past and may in the future be subject to claims under such laws and regulations that could materially adversely affect our business. The promulgation of new laws or regulations, or the new interpretation of existing laws and regulations, in each case, that restrict or otherwise unfavorably impact our business, or our ability to provide or the manner in which we provide our services, could require us to change certain aspects of our business and operations to ensure compliance, which could decrease demand for services, reduce revenues, increase costs and subject us to additional liabilities. The adoption of any laws or regulations that adversely affect the popularity or growth in use of the internet or our services, including laws or regulations that undermine open and neutrally administered internet access, could decrease user demand for our service offerings and increase our cost of doing business, any of which could have a material adverse effect on our business, financial condition and results of operations. Our failure to comply with U.S. and foreign export controls, sanctions and other trade laws and regulations could have a material adverse effect on our business. We are subject to rules and regulations of the U.S. and other relevant authorities relating to export controls and economic and trade sanctions, including sanctions administered by the Office of Foreign Assets Control (OFAC) within the U.S. Department of the Treasury, as well as the Export Administration Regulations (i.e. export controls) administered by the Department of Commerce. These laws and regulations limit our ability to market, sell, distribute or otherwise transfer our products, software, or technology to, or otherwise transact or deal with, certain countries, territories, governments, and persons, absent U.S. government permissions or exemptions. Further, we have historically provided services to users in countries that are the target of U.S. sanctions, such as Syria. We believe our provision of such services is in compliance with applicable law, and have implemented various control mechanisms to maintain such compliance. We have also secured a license from OFAC to provide certain of our services to end-users in Syria, which we renewed in 2022 for an additional two years. There is no assurance that OFAC will agree to extend or renew our license. Our efforts to comply with these rules and regulations may not be successful, and a determination that we have failed to comply, whether knowingly or inadvertently, may result in substantial penalties, including fines, enforcement actions, civil and/or criminal sanctions, the disgorgement of profits, and may materially adversely affect our business, financial condition and results of operations. Our success depends, in part, on our ability to access, protect, collect, and use personal data, and our failure to comply with the varying and rapidly-evolving regulatory framework on privacy and data protection across jurisdictions could result in claims or other forms of liability, increased cost of operations, reputational harm, or declines in user growth or engagement, or otherwise have a material adverse effect on our business. Increased regulation of data utilization practices and personal data processing, including self-regulatory frameworks, new laws, rules, and regulations, or findings or guidance under existing laws that limit or otherwise regulate our ability to collect, disclose, process, transfer, retain and use information and other 66data, including personal data, could have a material adverse effect on our business, financial condition and results of operations. In addition, if we were to disclose personal data about our users in a manner that was objectionable to them, our business reputation could be materially adversely affected, and we could face potential legal claims that could impact our operating results. Internationally, we may become subject to additional and/or more stringent legal obligations (as compared to our U.S. obligations) concerning our treatment of customer and other personal information, such as laws regarding data localization and/or restrictions on data export. For example, the GDPR and U.K. GDPR regulate cross-border transfers of personal data out of the EEA and the U.K. We expect the existing legal complexity and uncertainty regarding international personal data transfers to continue. In the event that any regulator or court of law orders the suspension of personal data transfers to or from a particular jurisdiction this could give rise to operational interruption in the performance of services for customers, greater costs to implement alternative data transfer mechanisms that are still permitted, regulatory liabilities or reputational harm. Failure to comply with evolving privacy laws could subject us to liability and expose us to fines, penalties and compliance orders, and to the extent that we need to alter our business model or practices to adapt to these obligations, we could incur additional expenses, which may in turn materially adversely affect our business, financial condition, and results of operations. There are numerous laws in the countries in which we operate regarding privacy and the storage, sharing, use, transfer, disclosure, protection and other processing of personal data, the scope of which are constantly changing, and in some cases, inconsistent and conflicting and subject to differing interpretations, as new laws of this nature are proposed and adopted and we currently, and from time to time, may not be in technical compliance with all such laws. Such laws also are becoming increasingly rigorous and could be interpreted and applied in ways that may have a material adverse effect on our business, financial condition, results of operations and prospects. Therefore, enforcement practices are likely to remain uncertain for the foreseeable future. In recent years, there has been an increase in attention to and regulations of data protection and data privacy across the globe, including in the U.S., the EEA and the U.K. We are subject to various data protection laws, including, among others: the GDPR in the EEA; the U.K. data protection regime consisting primarily of (i) the U.K. General Data Protection Regulation and (ii) the U.K. Data Protection Act 2018 (collectively (i) and (ii), the UK GDPR); the PIPL in China; the California Consumer Privacy Act, as amended by the California Privacy Rights Act (together, the CCPRA) and the Virginia Consumer Data Protection Act (the VCDPA) in the U.S., and the Brazilian General Data Protection Law, which imposes requirements similar to the GDPR on products and services offered to users in Brazil. We may be subject to additional privacy regulations in the future. Other comprehensive data privacy or data protection laws or regulations have been passed or are under consideration in other U.S. states (including Colorado, Connecticut, Delaware, Utah, Indiana, Iowa, Montana, Oregon, Tennessee, and Texas) and other jurisdictions, including China, India and Japan. Laws such as these impose increasingly complex set of compliance obligations on us, as well as on many of our service providers. These laws impose restrictions on our ability to gather personal data, provide individuals with the ability to opt out of personal data collection and control how their personal data is processed, impose obligations on our ability to share personal data with others, limit the geographic locations in which we can store personal data, and potentially subject us to fines, lawsuits, and regulatory scrutiny. For example, the GDPR and the U.K. GDPR impose strict data protection compliance requirements including: providing detailed disclosures about how personal data is collected and processed (in a concise, intelligible and easily-accessible form); demonstrating that an appropriate legal basis is in place or otherwise exists to justify data processing activities; complying with rights for data subjects in regard to their personal data (including the right to be forgotten and the right to data portability); notifying data protection regulators or supervisory authorities (and in certain cases, affected individuals) of significant data breaches; ensuring appropriate safeguards are in place where personal data is transferred out of the EEA and the U.K.; limiting retention of personal data; maintaining a record of processing activities; and complying with the principle of accountability and the obligation to demonstrate compliance through 67policies, procedures, training and audit. The GDPR and the U.K. GDPR create compliance obligations that are also applicable to entities established outside the EEA/U.K., which offer goods or services to individuals located in the EEA/U.K. or which observe the behavior of individuals located in the EEA/U.K. This has created a greater compliance burden for us and other companies with users or employees in the EEA and the U.K., as the legal regimes may subject non-compliant entities to substantial monetary penalties. In particular, fines for the most serious violations under the GDPR and the U.K. GDPR may amount to the greater of a, -20 million/£17.5 million or, in the case of an undertaking, up to 4% of the total worldwide annual group turnover of the preceding financial year. Since we are subject to the supervision of relevant data protection authorities under both the GDPR and the U.K. GDPR, we could be fined under each of those regimes independently in respect of the same violation. In addition to potential substantial fines, non-compliance could result in regulatory investigations, reputational damage, orders to cease/ change the processing of personal data, enforcement notices, and/or assessment notices (for a compulsory audit). We may also face civil claims including representative actions and other class action type litigation (where individuals have suffered harm), potentially amounting to significant compensation or damages liabilities, as well as associated costs and diversion of internal resources. We rely on a mixture of mechanisms to transfer personal data from the EEA and the U.K. to the U.S. and other jurisdictions deemed non-adequate, and are evaluating what additional mechanisms may be required to establish adequate safeguards for personal data. As the regulatory guidance and enforcement landscape in relation to data transfers continue to develop, there will be uncertainty as to how we comply with EEA and U.K. privacy laws and we could suffer additional costs, complaints, and/or regulatory investigations or fines. If we are otherwise unable to transfer personal data between and among countries and regions in which we operate, it could affect the manner in which we provide our services, and we may find it necessary to establish systems in the EEA and the U.K. to maintain personal data originating from the EEA and the U.K., which may involve substantial expense and distraction from other aspects of our business. Other countries have also passed or are considering passing laws requiring local data residency and/or restricting the international transfer of data, which would create similar risks for us in those countries. We are also subject to evolving privacy laws in the EEA and the U.K. on cookies, tracking technologies and e-marketing. In the EEA and the U.K., informed consent is required for the placement of non-strictly necessary cookies or similar technologies on users' devices and for direct electronic marketing. The GDPR and the U.K. GDPR also impose conditions on obtaining valid consent, such as a prohibition on pre-checked consents and a requirement to ensure separate consents are sought for each type of non-strictly necessary cookie or similar technology. Regulators are increasingly focusing on compliance with such requirements in the online behavioral advertising ecosystem, and current national laws that implement the ePrivacy Directive may be replaced by an EU regulation known as the ePrivacy Regulation which would significantly increase fines for non-compliance. While the text of the ePrivacy Regulation is still under development, European court decisions and regulators' guidance are driving increased attention to cookies and tracking technologies. If regulators continue to enforce the strict approach seen in recent guidance and decisions, this could lead to substantial costs, require significant systems changes, limit the effectiveness of our marketing activities, divert the attention of our technology personnel, adversely affect our margins, increase costs and subject us to additional liabilities. Regulation of cookies and similar technologies, and any decline of cookies or similar online tracking technologies as a means to identify and potentially target users as well as personalize the consumer experience, may lead to broader restrictions and impairments on our marketing and personalization activities and may negatively impact our efforts to understand and tailor our offerings to users. Our online advertising partners may also change their own policies in response to these legal developments; for example, Google recently enacted new Consent Management Platform requirements for advertisers in the EEA and U.K. Such policies may restrict our ability to personalize and serve advertisements. 68Ongoing developments in the U.K. have created additional uncertainty as the U.K. may become a third country for the purposes of personal data transfers from the EEA to the U.K. should the U.K. lose its current

æœadequacyâ€ status as a result of future privacy law reforms. These changes may require us to find alternative solutions for the compliant transfer of personal data from the EEA into and out of the U.K., which may be costly or disruptive to our service or business. We depend on a number of third parties in relation to the operation of our business, a number of which process personal data on our behalf. While we take steps intended to mitigate the associated risks of using third parties, there is no assurance that these measures and our own privacy and security-related safeguards will protect us from the risks associated with the third-party processing, storage and transmission of such information. Any violation of data or security laws by our third party processors could have a material adverse effect on our business and result in the fines and penalties outlined above. The GDPR and the U.K. GDPR will continue to be interpreted by data protection regulators and courts in the EEA and the U.K. If their interpretation of the requirements under these laws is inconsistent with our business practices, this may require us to make changes to our business practices, which could be time-consuming and expensive, and could generate additional risks and liabilities. In the U.S., multiple legislative proposals concerning privacy and the protection of user information are being considered by the U.S. Congress. Various U.S. state legislatures have announced intentions to consider additional privacy legislation, and U.S. state legislatures have already passed and enacted comprehensive privacy legislation. For example, California enacted the CCPA, which, among other obligations, requires covered companies to provide disclosures to California consumers and provide such consumers certain data protection and privacy rights, including the ability to opt-out of certain sales of personal information. The CCPA provides for civil penalties for violations, as well as a private right of action for certain data breaches. This private right of action may increase the likelihood of, and risks associated with, data breach litigation. Other state comprehensive laws which have taken effect in 2023 or will take effect during 2024 provide state residents with certain rights to access personal data that is being processed by the controller, the right to correct inaccuracies in that personal data and the right to require that their personal data be deleted by the data controller. Under such comprehensive state laws, residents typically have the right to opt out of the sale of their personal data, as well as the right to opt out of the processing of their personal data for targeted advertising. New legislation proposed or enacted in a number of states impose, or have the potential to impose additional obligations on companies that collect, store, use, retain, disclose, transfer and otherwise process confidential, sensitive and personal information, and will continue to shape the data privacy environment nationally. State laws are changing rapidly and there is discussion in Congress of a new federal data protection and privacy law to which we would become subject if it is enacted. Additionally, governmental agencies like the Consumer Financial Protection Bureau and the Federal Trade Commission have adopted, or are considering adopting, laws and regulations concerning personal information and data security. For example, the Federal Trade Commission has increased its focus on privacy and data security practices at digital companies, as evidenced by obtaining increasing fines and prohibiting future data practices against companies found to be in violation of the Childrenâ€™s Online Privacy Protection Act (æœCOPPAâ€), and obtaining twenty-year consent decrees mandating enhanced and specific requirements for information security or privacy management programs. While the FTC does not have legal authority to seek monetary penalties or relief in the area of data security as a general matter, a violation of a privacy or data security consent decree can subject the responding company to very high monetary penalties, as evidenced by the FTC obtaining \$5 billion in negotiated monetary relief against Facebook for violation of a consent decree.69The myriad international and U.S. privacy and data breach laws are not consistent, and compliance in the event of a widespread data breach is difficult and may be costly. In addition to government regulation, privacy advocates and industry groups have and may in the future propose self-regulatory standards from time to time. These and other industry standards may legally or contractually apply to us, or we may elect to comply with such standards. We expect that there will continue to be new proposed laws and regulations concerning data privacy and security, and we cannot yet determine the impact such future laws, regulations and standards may have on our business. Because the interpretation and application of data protection laws, regulations, standards and other obligations are still uncertain, and may be contradictory and in flux, it is possible that the scope and requirements of these laws may be interpreted and applied in a manner that is inconsistent with our practices and our efforts to comply with the evolving data protection rules may be unsuccessful. We make public statements about our use and disclosure of personal information through our privacy policy, information provided on our website and press statements. Although we endeavor to ensure that our public statements are complete, accurate and fully implemented, we may at times fail to do so or be alleged to have failed to do so. We may be subject to potential regulatory or other legal action if such policies or statements are found to be deceptive, unfair or misrepresentative of our actual practices. In addition, from time to time, concerns may be expressed about whether our products and services compromise the privacy of our users and others. Any concerns about our data privacy and security practices (even if unfounded), or any failure, real or perceived, by us to comply with our posted privacy policies or with any legal or regulatory requirements, standards, certifications or orders or other privacy or consumer protection-related laws and regulations applicable to us, could cause our users to reduce their use of our products and services. Moreover, privacy activist groups have previously and may continue to provide resources to support individuals who wish to pursue privacy claims or put pressure on companies to change data processing practices. High-profile brands such as ours risk being targeted by such groups and there is a risk that if a user became disgruntled with our data processing practices they could leverage support from such privacy activist groups to take legal action, initiate regulatory investigation or gain publicity for their cause. There is a risk that these groups will seek to challenge our practices, particularly in relation to targeted advertising or international data transfers. Any such campaign could require significant resources to mount a response and could lead to negative publicity and potential investigation from regulators, any of which may materially adversely affect our business, financial condition, and results of operations. There is no assurance that we will not be subject to claims that we have violated applicable laws or industry standards, that we will be able to successfully defend against such claims or that we will not be subject to significant fines and penalties in the event of non-compliance. Additionally, to the extent multiple state-level laws are introduced with inconsistent or conflicting standards and there is no federal law to preempt such laws, compliance with such laws could be difficult and costly to achieve and we could be subject to fines and penalties in the event of non-compliance. Furthermore, enforcement actions and investigations by regulatory authorities related to data security incidents and privacy violations continue to increase. We have in the past received, and may continue to receive inquiries from regulators regarding our data privacy practices. Any failure or perceived failure by us (or the third parties with whom we have contracted to process such information) to comply with applicable data, privacy and security laws, policies or related contractual obligations, or any compromise of security that results in unauthorized access, use or transmission of, personal user information, could result in a variety of claims against us, including governmental enforcement actions and investigations, class action privacy litigation in certain jurisdictions and proceedings by data protection authorities. We could further be subject to significant fines, other litigation, claims of breach of contract and indemnity by third parties, and adverse publicity. When such events occur, our reputation may be harmed, we may lose current and potential users and the competitive positions of our various brands might be diminished, any 70or all of which could materially adversely affect our business, financial condition, results of operations and prospects. In addition, if our practices are not consistent or viewed as not consistent with legal and regulatory requirements, including changes in laws, regulations and standards or new interpretations or applications of existing laws, regulations and standards, we may become subject to audits, inquiries, whistleblower complaints, adverse media coverage, investigations, loss of export privileges or severe criminal or civil sanctions, all of which may have a material adverse effect on our business, financial condition, results of operations and prospects. In some locations we are subject to privacy regulations that may be seen as excessive, invasive or harmful, such as those that require organizations to provide access to personal information or confidential data to governmental bodies. We risk reputational damage if we are deemed to be negatively impacting the privacy of our users through our attempts to comply with such regulations. Should we actively choose to not comply with regulations we deem harmful to our users we risk damages from non-compliance as described previously. Online applications are subject to various laws and regulations relating to childrenâ€™s privacy and protection, which if violated, could subject us to litigation and regulatory actions. A variety of laws and regulations have been adopted in recent years aimed at protecting children using the internet such as the COPPA, Article 8 of the GDPR and the U.K. GDPR, and the U.K.â€™s Age Appropriate Design Code (also referred to as the Childrenâ€™s Code) and Chinaâ€™s Regulations on the Protection of Minors on the Internet, which took effect on January 1, 2024. As some of these laws and regulations apply to us or our applications, we implement certain precautions designed to ensure our compliance with such laws and regulations. Despite our efforts, no assurances can be given that such measures will be sufficient to completely avoid allegations (whether founded or not) or decisions that we have, or are, not in compliance with COPPA or another relevant law or regulation, any of which could expose us to significant liability, penalties, reputational harm and loss of revenue, among other things. We also expect further jurisdictions to adopt these types of laws and regulations, which would further increase these risks, and may require us to spend additional resources in order to comply. Additionally, new regulations are being considered in various jurisdictions to require the monitoring of user content or the verification of usersâ€™ identities and age. For example, on December 20, 2023, the U.S. FTC proposed a new rule under COPPA that in its words æœwould require targeted advertising to be off by default, limit push notifications, restrict surveillance in schools, and strengthen data security.â€ Such new regulations, or changes to existing regulations, could increase the complexity of our compliance obligations and the cost of our operations. Our implementation and use of AI and machine learning technologies may not be successful, which may impair our ability to compete effectively, result in reputational harm and have an adverse effect on our business. We use machine learning and AI technologies throughout the business, including technologies that we have developed internally and via integrations with a third partyâ€™s AI technologies. For example, we use AI and machine learning technologies to help us produce content for both the learning application and the Duolingo English Test. Furthermore, in the first quarter of 2023 we began to offer in certain markets a higher subscription tier that uses AI to enable two new features - one that provides more detailed explanations of correct and incorrect answers and one that allows a user to role-play by text certain scenarios to practice their language skills. As with many technological innovations, there are significant risks and challenges involved in maintaining and deploying these technologies and there can be no assurance that the usage of such technologies will always enhance our products or services or be beneficial to our business, including our efficiency or 71profitability. In particular, if these AI or machine learning models are (i) incorrectly designed or implemented; (ii) trained on incomplete, inadequate, inaccurate, biased or otherwise poor quality data or on data to which we do not have sufficient rights; and/or (iii) are adversely impacted by unforeseen defects, technical challenges, cyber security threats or material performance issues, the performance of our products, services, and business, as well as our reputation could suffer or we could incur liability through the violation of laws or contracts to which we are a party or civil claims. We are working to incorporate generative AI (i.e., AI that can produce and output new content, software code, data and information) features into our solutions, such as Duolingo Max which is powered by OpenAIâ€™s GPT-4 AI model. Generative AI technologies can create accuracy issues, unintended biases, intellectual property infringing content, and discriminatory outcomes. There is a risk that generative AI technologies could produce inaccurate or misleading content or other discriminatory or unexpected results or behaviors, such as hallucinatory behavior that can generate irrelevant, nonsensical, or factually incorrect results, all of which could harm our reputation, business, or customer relationships. While we take measures designated to ensure the accuracy of such AI generated content is accurate, those measures may not always be successful, and in some cases, we may need to rely on end users to report such inaccuracies. The law is also uncertain across jurisdictions regarding the copyright ownership of content that is produced in whole or in part by generative AI tools. Further, our ability to continue to develop, maintain or use such technologies may be dependent on access to specific third-party software and infrastructure, such as processing infrastructure for the training of our own machine-learning models or the use of third-party AI models. We cannot control the availability or pricing of such third-party software and infrastructure, especially in a highly competitive environment. Our products and services may not compete effectively with alternative products and services if we are not able to source and integrate the latest AI and machine learning technologies into our products and services. In addition, market acceptance and consumer perceptions of AI and machine learning technologies is uncertain, and negative trends in acceptance or perception of such technologies may subject us to brand or reputational harm. Regulatory and legislative developments on the use of AI and machine learning could adversely affect our use of such technologies in our products and services as well as our operating results. As the regulatory framework for machine learning technology and AI evolves, our business, financial condition, and results of operations may be adversely affected. The regulatory framework for machine learning, AI and automated decision making technologies is rapidly evolving, and we may not always be able to anticipate how to respond to these laws or regulations. New laws regulating AI have been enacted in the U.S. and China and are entering into force in the EU on August 2, 2024 (as described below), and it is possible that new laws and regulations will be adopted in other jurisdictions, for example, the UK government announced on July 17, 2024 that it would introduce legislation to regulate artificial intelligence. In the U.S., the October 30, 2023 Executive Order on Safe, Secure, and Trustworthy Artificial Intelligence (the æœOrderâ€) has established certain new standards for the training, testing and cybersecurity of sophisticated AI models, and the Order has also instructed other federal agencies to promulgate additional regulations within certain timeframes from the date of the Order. Already agencies such as the Department of Commerce and the Federal Trade Commission have issued proposed rules governing the use and development of AI technologies. Federal AI legislation has also been introduced in the U.S. Senate. Such additional regulations may impact our ability to develop, use and commercialize AI and machine learning technologies in the future. There have also been laws that are being considered at the state level that would impact the use and development of AI technologies, such as the Safe and Secure Innovation for Frontier Artificial Intelligence Models Act in California. Additionally, it is possible that existing laws and regulations may be interpreted in ways that would affect the operation of our learning platforms, online testing business and data analytics and the way in which we use AI and machine learning 72technologies. Further, the cost to comply with such laws or regulations could be significant and would increase our operating expenses, which could adversely affect our business, financial condition and results of operations. For example, in Europe, the EU Artificial Intelligence Act (æœEU AI Actâ€), which establishes a risk-based governance framework for AI in the EU market, entered into force on August 2, 2024, and the majority of the substantive requirements will apply two years later. This framework categorizes AI applications into risk categories such as æœunacceptableâ€, æœhighâ€, æœlimitedâ€, and æœminimalâ€. Some of our current or future AI applications may fall within the æœhighâ€ or æœlimitedâ€ risk categories. AI applications in the æœhighâ€ risk category are subject to new ex ante conformity assessments and a range of new requirements, particularly on risk management, testing, technical documentation and robustness, data training and data governance and log recording, transparency, human oversight, and cybersecurity, while AI applications in the æœlimitedâ€ risk category are expected to become subject to new transparency obligations. The EU AI Act also includes specific requirements for general purpose AI and foundational models, such as transparency, training data obligations, and labeling for generative AI systems. Fines for breaches of the EU AI Act extend up to 7% of worldwide annual turnover. In 2023, China implemented a number of regulations to govern AI, algorithmic recommendation and deep synthesis technologies, namely the Provisional Provisions on Management of Generative Artificial Intelligence Services, Administrative Provisions on Algorithm Recommendation for Internet Information Services and Provisions on Management of Deep Synthesis in Internet Information Service, respectively. Such regulations impose strict obligations on service providers, among other entities, with respect to their provision and use of AI, algorithmic recommendation and deep synthesis technologies. The EU AI Act and the regulatory framework in China are expected to have a material impact on the way AI is regulated in the EU and in China, and together with developing guidance and/or decisions in this area, may affect our use of AI and our ability to provide and to improve our services, require additional compliance measures and changes to our operations and processes, result in increased compliance costs and potential increases in civil claims or fines against us, and could adversely affect our business, financial condition and operations. We are subject to litigation and adverse outcomes in such litigation could have a material adverse effect on our business, financial condition and results of operations. We are, and from time to time may become, subject to litigation and various legal proceedings, including litigation and proceedings related to intellectual property matters, privacy and consumer protection laws, as well as stockholder derivative suits, class action lawsuits, actions from former employees and other matters, that involve claims for substantial amounts of money or for other relief or that might necessitate changes to our business or operations. The defense of these actions could be time consuming and expensive and could distract our personnel from their normal responsibilities. We evaluate these litigation claims and legal proceedings to assess the likelihood of unfavorable outcomes and to estimate, if possible, the amount of potential losses. Based on these assessments and estimates, we may establish reserves or disclose the relevant litigation claims or legal proceedings, as and when required or appropriate. These assessments and estimates are based on information available to management at the time of such assessment or estimation and involve a significant amount of judgment. As a result, actual outcomes or losses could differ materially from those envisioned by our current assessments and estimates. Our failure to successfully defend or settle any of these litigations or legal proceedings could result in liability that, to the extent not covered by our insurance, could have a material adverse effect on our business, financial condition and results of operations. See Part II, Item 1. Legal Proceedings.73We are subject to taxation related risks in multiple jurisdictions. We are a US-based multinational company subject to tax in multiple U.S. and foreign tax jurisdictions. Significant judgment is required in determining our global provision for income taxes, deferred tax assets or liabilities and in evaluating our tax positions on a worldwide basis. While we believe our tax positions are consistent

with the tax laws in the jurisdictions in which we conduct our business, it is possible that these positions may be challenged by jurisdictional tax authorities, which may have a significant impact on our global provision for income taxes. Tax laws are being re-examined and evaluated globally. New laws and interpretations of the law are taken into account for financial statement purposes in the quarter or year that they become applicable. Tax authorities are increasingly scrutinizing the tax positions of companies. Many countries in the European Union, as well as a number of other countries and organizations such as the Organization for Economic Cooperation and Development and the European Commission, are actively considering and enacting changes to existing tax laws that, if enacted or when in effect, could increase our tax obligations in countries where we do business. These proposals and new laws include changes to the existing framework to calculate income tax, as well as proposals to change or impose new types of non-income taxes, including taxes based on a percentage of revenue. For example, several countries in the European Union have proposed or enacted taxes applicable to digital services, which includes business activities on social media platforms and online marketplaces, and would likely apply to our business. Many questions remain about the enactment, form and application of these digital services taxes. The interpretation and implementation of the various digital services taxes (especially if there is inconsistency in the application of these taxes across tax jurisdictions) could have a materially adverse impact on our business, results of operations and cash flows. Moreover, if the U.S. or other foreign tax authorities change applicable tax laws, our overall taxes could increase, and our business, financial condition or results of operations may be adversely impacted. Risks Related to Our Intellectual Property From time to time, we may be party to intellectual property-related litigation and proceedings that are expensive and time consuming to defend, and, if resolved adversely, could materially adversely impact our business, financial condition and results of operations. Our commercial success depends in part on avoiding infringement, misappropriation or other violations of the intellectual property rights of third parties. However, we may become party to disputes from time to time over rights and obligations concerning intellectual property held by third parties, and we may not prevail in these disputes. Companies in the internet, technology and social media industries are subject to frequent litigation based on allegations of infringement, misappropriation or other violations of intellectual property rights. Furthermore, various patent-practicing entities that own patents and other intellectual property rights often attempt to assert claims in order to extract value from technology companies and, given that these patent holding companies or other adverse intellectual property rights holders typically have no relevant product revenue, our own issued or pending patents and other intellectual property rights may provide little or no deterrence to these rights holders in bringing intellectual property rights claims against us. From time to time we may receive claims from third parties which allege that we have infringed upon their intellectual property rights. Further, from time to time we may introduce new products, product features and services, including in areas where we currently do not have an offering, which could increase our exposure to patent and other intellectual property claims from competitors, non-practicing entities, and other rights holders. For example, we may license and use musical content in our newly launched music courses, marketing activities, and elsewhere, and may receive intellectual property claims relating to our use of this musical content. In addition, some of our agreements with third-party partners require us to indemnify them for certain intellectual property claims against them, which could require us to incur considerable costs in defending such claims, and may require us to pay significant damages in the event of an adverse ruling. Such third-party partners may also discontinue their relationships with us as a result of injunctions or otherwise, which could result in loss of revenue and adversely impact our business operations. Although we try to ensure that our employees and consultants do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or our employees or consultants have inadvertently or otherwise used or disclosed intellectual property, including trade secrets, software code or other proprietary information, of a former employer or other third parties. Litigation may be necessary to defend against these claims and if we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Further, while it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. Additionally, any such assignment of intellectual property rights may not be self-executing, or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. As we face increasing competition and develop new products, we expect the number of patent and other intellectual property claims against us may grow. There may be intellectual property or other rights held by others, including issued or pending patents, that cover significant aspects of our products and services, and we cannot be sure that we are not infringing or violating, and have not infringed or violated, any third-party intellectual property rights or that we will not be held to have done so or be accused of doing so in the future. Any claim or litigation alleging that we have infringed or otherwise violated intellectual property or other rights of third parties, with or without merit, and whether or not settled out of court or determined in our favor, could be time-consuming and costly to address and resolve, and could divert the time and attention of our management and technical personnel. The outcome of any litigation is inherently uncertain, and there can be no assurances that favorable final outcomes will be obtained in all cases. In addition, third parties may seek, and we may become subject to, preliminary or provisional rulings in the course of any such litigation, including potential preliminary injunctions requiring us to cease some or all of our operations. We may decide to settle such lawsuits and disputes on terms that are unfavorable to us. Similarly, if any litigation to which we are a party is resolved adversely, we may be subject to an unfavorable judgment that may not be reversed upon appeal, including being subject to a permanent injunction and being required to pay substantial monetary damages, including treble damages, punitive damages, and attorneys' fees, if we are found to have willfully infringed a party's intellectual property rights. The terms of such a settlement or judgment may require us to cease some or all of our operations, pay substantial amounts to the other party, or admit liability. Moreover, as part of any settlement or other compromise to avoid complex, protracted litigation, we may agree not to pursue future claims against a third party, including for claims related to alleged infringement of our intellectual property rights. Part of any settlement or other compromise with another party may resolve a potentially costly dispute but may also have future repercussions on our ability to defend and protect our intellectual property rights, which in turn could adversely affect our business, financial conditions, and results of operations and prospects. In addition, we may have to seek a license to continue practices found to be in violation of a third-party's rights. If we are required, or choose to enter into royalty or licensing arrangements, such arrangements may not be available on reasonable terms, or at all, and may significantly increase our operating costs and expenses. Such arrangements may also only be available on a non-exclusive basis such that third parties, including our competitors, could have access to the same licensed technology to compete with us. As a result, we may also be required to develop or procure alternative non-infringing technology, which could require significant effort, time and expense or discontinue use of the technology. There also may be no assurance that we would be able to develop or license suitable alternative technology to permit us to continue offering the affected products or services as currently offered. If we cannot develop or license alternative technology for any allegedly infringing aspect of our business, we would be forced to limit our products and services and may be unable to compete effectively. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. Any of the foregoing, and any unfavorable resolution of such disputes and litigation, would materially and adversely impact our business, financial condition, results of operations and prospects. We may fail to adequately obtain, protect and maintain our intellectual property rights or prevent third parties from making unauthorized use of such rights. Our intellectual property is a material asset of our business and our success depends in part on our ability to protect our proprietary information and techniques and multiple forms of intellectual property. For example, we rely heavily upon our trademarks, designs, copyrights, related domain names, social media handles and logos to market our brands and to build and maintain brand loyalty and recognition. We also rely upon proprietary technologies and trade secrets, as well as a combination of laws, and contractual restrictions, including confidentiality agreements with employees, customers, suppliers, affiliates and others, to establish, protect and enforce our various intellectual property rights. We have generally registered and continue to apply to register and renew, or secure by contract where appropriate, trademarks, service marks and copyrights as they are developed and used, and reserve, register and renew domain names and social media handles as we deem appropriate. If our trademarks and trade names are not adequately protected, then we may not be able to build and maintain name recognition in our markets of interest and our business may be adversely affected. Effective trademark protection may not be available or may not be sought in every country in which our products are made available, in every class of goods and services in which we operate, and contractual disputes may affect the use of marks governed by private contract. Our registered or unregistered trademarks, tradenames or other intellectual property rights may be challenged, infringed, circumvented or declared limited, invalid or unenforceable or determined to be infringing on other marks. Further, at times, competitors may adopt trade names or trademarks similar or identical to ours, thereby impeding our ability to build or extend brand identity and possibly leading to market confusion. Similarly, not every variation of a domain name or social media handle may be available or be registered by us, even if available. The occurrence of any of these events could result in the erosion of our brands and limit our ability to market our brands using our various domain names and social media handles, as well as impede our ability to effectively compete against competitors with similar technologies or products, any of which could materially adversely affect our business, financial condition and results of operations. We are also party to certain agreements that may limit our trademark rights in certain jurisdictions; while we believe these agreements are unlikely to have a significant impact on our business as currently conducted, our ability to use our existing trademarks in new business lines in the future may be limited. We also rely on seeking patent protection for key technologies or approaches we develop that enable us to deliver or enhance the products and services we offer. We seek patent protection for these types of innovations primarily in order to best protect our ability to utilize the innovations either by ourselves or as part of a joint development project. We cannot guarantee that our efforts to obtain and maintain intellectual property rights are adequate, that we have secured, or will be able to secure, appropriate permissions or protections for all of the intellectual property rights we use or rely on. Furthermore, even if we are able to obtain intellectual property rights, any challenge to our intellectual property rights could result in them being narrowed in scope or declared invalid or unenforceable. In addition, other parties may independently develop technologies that are substantially similar or superior to ours and we may not be able to stop such parties from using such independently developed technologies to compete effectively with us. We also rely upon unpatented proprietary information and other trade secrets to protect intellectual property that may not be registrable, or that we believe is best protected by means that do not require public disclosure. While it is our policy to enter into confidentiality agreements with employees and third parties to protect our proprietary expertise and other trade secrets, we cannot guarantee that we have entered into such agreements with each party that has or may have had access to our proprietary information or trade secrets and, even if entered into, these agreements may otherwise fail to effectively prevent disclosure of proprietary information, may be limited as to their term, or may not provide an adequate remedy in the event of unauthorized disclosure or use of proprietary information. Monitoring unauthorized uses and disclosures is difficult, and we do not know whether the steps we have taken to protect our proprietary technologies will be effective. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret can be difficult, expensive and time-consuming, and the outcome is unpredictable. Further, some courts inside and outside the U.S. may be less willing or unwilling to protect trade secrets. In addition, trade secrets may be independently developed by others in a manner that could prevent legal recourse by us. If any of our confidential or proprietary information, such as our trade secrets, were to be disclosed or misappropriated, or if any such information was independently developed by a competitor, our competitive position would be materially adversely harmed. Our intellectual property rights and the enforcement or defense of such rights may be affected by developments or uncertainty in laws and regulations relating to intellectual property rights. For example, a number of aspects of intellectual property protection in the field of AI are currently evolving, and there is uncertainty and ongoing litigation in different jurisdictions as to the degree and extent of protection warranted for AI systems and relevant system input and outputs. If we fail to obtain protection for the intellectual property rights concerning our AI technologies or the output of such technologies, or later have our intellectual property rights invalidated or otherwise diminished, our competitors may be able to take advantage of our research and development efforts to develop competing products, which could adversely affect our business, reputation and financial condition. Moreover, many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, may not favor the enforcement of trademarks, copyrights, trade secrets and other intellectual property protection, which could make it difficult for us to stop the infringement, misappropriation or other violation of our intellectual property or the marketing of competing products in violation of our intellectual property rights generally. We also may be forced to bring claims against third parties to determine the ownership of what we regard as our intellectual property or to enforce our intellectual property rights against infringement, counterfeiting, misappropriation or other violations by third parties. However, the measures we take to protect our intellectual property from unauthorized use by others may not be effective and there can be no assurance that our intellectual property rights will be sufficient to protect against others offering products or services that are substantially similar or superior to ours or that compete with our business. We may not prevail in intellectual property-related proceedings that we initiate against third parties. Further, in such proceedings or in proceedings before patent, trademark and copyright agencies, our asserted intellectual property could be found to be invalid, unenforceable or limited in scope, in which case we could lose valuable intellectual property rights. In addition, even if we are successful in enforcing our intellectual property against third parties, the damages or other remedies awarded, if any, may not be commercially meaningful. Regardless of whether any such proceedings are resolved in our favor, such proceedings could cause us to incur significant expenses and could distract our personnel from their normal responsibilities. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license. Despite the measures we take to protect our intellectual property rights, our intellectual property rights may still not be adequate and protected in a meaningful manner, challenges to contractual rights could arise, third parties could copy or otherwise obtain and use our intellectual property without authorization, or laws and interpretations of laws regarding the enforceability of existing intellectual property rights may change over time in a manner that provides less protection or introduces uncertainty. The occurrence of any of these events could impede our ability to effectively compete against competitors with similar technologies, any of which could materially adversely affect our business, financial condition and results of operations. Our use of open source software and materials could subject our proprietary software to general release, adversely affect our ability to sell our products and services and subject us to possible litigation. We use open source software, content and materials (Open Source Materials) in connection with a portion of our proprietary software and our service offerings and we expect to continue to use Open Source Materials in the future. Under certain circumstances, some open source licenses require users of the Open Source Materials to provide the user's own proprietary source code to third parties upon request, to license the user's own proprietary source code or other materials for the purpose of making derivative works, prohibit users from charging a fee to third parties in connection with the use of the user's proprietary code, or require the relicensing of the Open Source Materials and derivatives thereof under the terms of the applicable license. While we employ practices designed to monitor our compliance with the licenses of third-party Open Source Materials and protect our proprietary source code and content, we cannot guarantee that we will be successful, that all Open Source Materials are reviewed prior to use in our products, that our developers have not incorporated Open Source Materials into our products, or that they will not do so in the future. Accordingly, we may face claims from others challenging our use of Open Source Materials or seeking to enforce the license terms applicable to such Open Source Materials, including by demanding public release of the Open Source Materials or derivative works or our proprietary source code and content that was developed or distributed in connection with such Open Source Materials. Such claims could also require us to purchase a commercial license or require us to devote additional research and development resources to change our software and content, any of which would have a negative effect on our business and results of operations. In addition, if the license terms for the open source code change, we may be forced to re-engineer our software, revise our content or otherwise incur additional costs. Additionally, the terms of many open source licenses to which we are subject have not been interpreted by U.S. or foreign courts. There is a risk that open source licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to market or provide our products. In addition, the use of open source software may entail greater risks than the use of third-party commercial software, as open source licensors generally do not provide warranties or other contractual protections regarding infringement claims or the quality of the code. To the extent that our platform depends upon the successful operation of the open source software we use, any undetected errors or defects in this open source software could prevent the deployment or impair the functionality of our platform, delay the introduction of new solutions, result in a failure of our platform, and injure our reputation. For example, undetected errors or defects in open source software could render it vulnerable to breaches or security attacks and make our systems more vulnerable to data breaches. Our exposure to these risks may be increased as a result of evolving our core source code base, introducing new content and offerings, integrating acquired-company technologies, or making other business changes, including in areas where we do not currently compete. Any of the foregoing could adversely impact the value or enforceability of our

intellectual property, and materially adversely affect our business, financial condition, and results of operations. Risks Related to Ownership of our Class A Common Stock The market price of shares of our Class A common stock may be volatile or may decline regardless of our operating performance, which could cause the value of your investment to decline. The trading price of our Class A common stock may be highly volatile and could be subject to wide fluctuations. Securities markets worldwide experience significant price and volume fluctuations. This market volatility, as well as general economic, market or political conditions, could reduce the market price of shares of our Class A common stock regardless of our operating performance. In addition, our operating results could be below the expectations of public market analysts and investors due to a number of potential factors, including variations in our quarterly operating results or dividends, if any, to stockholders, additions or departures of key management personnel, failure to meet analysts' earnings estimates, publication of research reports about our industry, the timing and amount of any share repurchases, litigation and government investigations, changes or proposed changes in laws or regulations or differing interpretations or enforcement thereof affecting our business, adverse market reaction to any indebtedness we may incur or securities we may issue in the future, changes in market valuations of similar companies or speculation in the press or investment community, announcements by our competitors of significant contracts, acquisitions, dispositions, strategic partnerships, joint ventures or capital commitments, adverse publicity about the industries we participate in or individual scandals, and in response the market price of shares of our Class A common stock could decrease significantly. Stock markets and the price of our Class A common stock may experience extreme price and volume fluctuations. In the past, following periods of volatility in the overall market and the market price of a company's securities, securities class action litigation has often been instituted against these companies. This litigation, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources. If securities or industry analysts do not continue to publish research or reports about our business, or if they downgrade their recommendations regarding our Class A common stock, our stock price and trading volume could decline. The trading market for our Class A common stock relies in part on the research and reports that industry or securities analysts publish about us or our business. If any of the analysts who cover us downgrade our Class A common stock or publish inaccurate or unfavorable research about our business, our Class A common stock price may decline. If analysts cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our Class A common stock price or trading volume to decline and our Class A common stock to be less liquid. The dual class structure of our common stock has the effect of concentrating voting control with those stockholders who held our capital stock prior to the listing of our Class A common stock on the Nasdaq Global Select Market, including our directors, executive officers, and 5% stockholders and their respective affiliates, who held in the aggregate 78.8% of the voting power of our capital stock as of September 30, 2024. This ownership will limit or preclude your ability to influence corporate matters, including the election of directors, amendments of our organizational documents, and any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction requiring stockholder approval. Our Class B common stock has 20 votes per share, and our Class A common stock has one vote per share. As of September 30, 2024, our directors, executive officers, and 5% stockholders and their affiliates held in the aggregate 78.8% of the voting power of our capital stock. Because of the 20-to-one voting ratio between our Class B and Class A common stock, the holders of our Class B common stock collectively could continue to control a significant percentage of the combined voting power of our common stock and therefore be able to control all matters submitted to our stockholders for approval until all outstanding shares of Class A and Class B common stock have converted automatically into shares of a single class of common stock. This concentrated control may limit or preclude your ability to influence corporate matters for the foreseeable future, including the election of directors, amendments of our organizational documents, and any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction requiring stockholder approval. In addition, this may prevent or discourage unsolicited acquisition proposals or offers for our capital stock that you may believe are in your best interest as one of our stockholders. In addition, future transfers by holders of Class B common stock will generally result in those shares converting to Class A common stock, subject to limited exceptions, such as certain transfers effected for estate planning purposes. The conversion of Class B common stock to Class A common stock will have the effect, over time, of increasing the relative voting power of those holders of Class B common stock who retain their shares in the long term. As a result, it is possible that one or more of the persons or entities holding our Class B common stock could gain significant voting control as other holders of Class B common stock sell or otherwise convert their shares into Class A common stock. In addition, while we do not expect to issue any additional shares of Class B common stock, any future issuances of Class B common stock would be dilutive to holders of Class A common stock. We cannot predict the impact our dual class structure may have on the market price of our Class A common stock. We cannot predict whether our dual class structure will result in a lower or more volatile market price of our Class A common stock, in adverse publicity or other adverse consequences. Certain investors, including large institutional investors, may prefer companies that do not have multiple share classes or may have investment guidelines that preclude them from investing in companies that have multiple share classes. In addition, certain index providers have previously implemented, and may in the future determine to implement, restrictions on including companies with multiple class share in certain of their indices. For example, from July 2017 to April 2023, S&P Dow Jones excluded companies with multiple share classes from the S&P Composite 1500 (composed of the S&P 500, S&P MidCap 400 and S&P SmallCap 600). Indices have discretion to reassess and implement such policies with respect to multi-class differing voting right structures. Under any such policies, our dual class capital structure would make us ineligible for inclusion in any of these indices. As a result, the market price of our Class A common stock could be materially adversely affected. We may issue preferred stock whose terms could materially adversely affect the voting power or value of our Class A common stock. Our amended and restated certificate of incorporation authorizes us to issue, without the approval of our stockholders, one or more classes or series of preferred stock having such designations, preferences, limitations and relative rights, including preferences over our Class A common stock respecting dividends and distributions, as our board of directors may determine. The terms of one or more classes or series of preferred stock could adversely impact the voting power or value of our Class A common stock. For example, we might grant holders of preferred stock the right to elect some number of our directors in all events or on the happening of specified events or the right to veto specified transactions. Similarly, the repurchase or redemption rights or liquidation preferences we might assign to holders of preferred stock could affect the residual value of the Class A common stock. Future issuance and sales of our common stock in the public market could cause the market price of our common stock to drop significantly, even if our business is doing well. Sales of a substantial number of shares of our common stock in the public market or the perception that these sales might occur in large quantities, could cause the market price of our Class A common stock to decline and could impair our ability to raise capital through the sale of additional equity securities. All shares of Class A common stock sold in our IPO are freely tradable without restrictions or further registration under the Securities Act except for any shares held by our affiliates as defined in Rule 144 under the Securities Act (see Rule 144(c)). Further, as of September 30, 2024, we had options outstanding that, if fully exercised, would result in the issuance of 1,228,500 shares of Class A common stock and 954,500 shares of Class B common stock, as well as 1,938,000 shares of Class A common stock issuable upon vesting and settlement of outstanding RSUs. We have registered on Form S-8 under the Securities Act the shares of our common stock subject to outstanding stock options that will be issuable pursuant to future awards granted under our equity incentive plan. These shares can be freely sold in the public market upon issuance, subject to applicable vesting requirements, compliance by affiliates with Rule 144, and other restrictions provided under the terms of the applicable plan and/or the award agreements entered into with participants. We may issue our shares of common stock or securities convertible into our common stock from time to time in connection with financings, acquisitions, investments, or otherwise. New investors in subsequent transactions could gain rights, preferences, and privileges senior to those of holders of our Class A common stock. Any such issuance could result in substantial dilution to our existing stockholders and cause the trading price of our Class A common stock to decline. We do not intend to pay dividends for the foreseeable future. Consequently, any gains from an investment in our Class A common stock will likely depend on whether the price of our Class A common stock increases. We do not intend to pay any dividends on our Class A common stock in the foreseeable future. We anticipate that we will retain all of our future earnings for use in the operation and growth of our business and for general corporate purposes. Any determination to pay dividends in the future will be at the discretion of our board of directors. Accordingly, investors must rely on sales of their Class A common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments. Anti-takeover provisions contained in our amended and restated certificate of incorporation and amended and restated bylaws, as well as provisions of Delaware law, could impair a takeover attempt. Our amended and restated certificate of incorporation and amended and restated bylaws contain and Delaware law contains provisions which could have the effect of rendering more difficult, delaying or preventing an acquisition deemed undesirable by our board of directors. Our corporate governance documents provide for: a dual-class structure; a classified board of directors with three-year staggered terms, who can only be removed for cause, which may delay the ability of stockholders to change the membership of our board of directors; no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates; the exclusive right of our board of directors to set the size of the board of directors and to elect a director to fill a vacancy, however occurring, including by an expansion of the board of directors, which prevents stockholders from being able to fill vacancies on our board of directors; the ability of our board of directors to authorize the issuance of shares of preferred stock and to determine the price and other terms of those shares, including voting or other rights or preferences, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquirer; the ability of our board of directors to alter our amended and restated bylaws without obtaining stockholder approval; in addition to our board of directors' ability to adopt, amend, or repeal our amended and restated bylaws, our stockholders may adopt, amend, or repeal our amended and restated bylaws only with the affirmative vote of the holders of at least 66 2/3% of the voting power of all our then-outstanding shares of capital stock; the required approval of (i) at least 66 2/3% of the voting power of the outstanding shares of capital stock entitled to vote generally in the election of directors, voting together as a single class, to adopt, amend, or repeal certain provisions of our restated certificate of incorporation and (ii) for so long as any shares of Class B common stock are outstanding, the holders of at least 80% of the shares of Class B common stock outstanding at the time of such vote, voting as a separate series, to adopt, amend, or repeal certain provisions of our restated certificate of incorporation; the ability of stockholders to act by written consent only as long as holders of our Class B common stock hold at least 50% of the voting power of our capital stock; the requirement that a special meeting of stockholders may be called only by an officer of our company pursuant to a resolution adopted by a majority of our board of directors then in office or the chairperson of our board; and advance notice procedures that stockholders must comply with in order to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of us. These provisions, alone or together, could delay or prevent hostile takeovers and changes in control or changes in our management. As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the General Corporation Law of the State of Delaware (the Delaware General Corporation Law), which prevents some stockholders holding more than 15% of our outstanding common stock from engaging in certain business combinations without approval of the holders of substantially all of our outstanding common stock. Any provision of our certificate of incorporation, bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock. Claims for indemnification by our directors and officers may reduce our available funds to satisfy successful third-party claims against us and may reduce the amount of money available to us. Our amended and restated certificate of incorporation and amended and restated bylaws provide that we will indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law. In addition, as permitted by Section 145 of the Delaware General Corporation Law, our amended and restated bylaws and our indemnification agreements that we have entered or intend to enter into with our directors and officers provide that we will indemnify our directors and officers for serving us in those capacities or for serving other business enterprises at our request, to the fullest extent permitted by Delaware law. Delaware law provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the registrant and, with respect to any criminal proceeding, had no reasonable cause to believe such person's conduct was unlawful; we may, in our discretion, indemnify employees and agents in those circumstances where indemnification is permitted by applicable law; we are required to advance expenses, as incurred, to our directors and officers in connection with defending a proceeding, except that such directors or officers shall undertake to repay such advances if it is ultimately determined that such person is not entitled to indemnification; the rights conferred in our amended and restated bylaws are not exclusive, and we are authorized to enter into indemnification agreements with our directors, officers, employees and agents and to obtain insurance to indemnify such persons; and we may not retroactively amend our amended and restated bylaw provisions to reduce our indemnification obligations to directors, officers, employees, and agents. Our directors' and officers' liability insurance policies may not be available to us in the future at a reasonable rate, may not cover all potential claims for indemnification, and may not be adequate to indemnify us for all liability that may be imposed. Our amended and restated certificate of incorporation and amended and restated bylaws provide for an exclusive forum in the Court of Chancery of the State of Delaware for certain disputes between us and our stockholders, and that the federal district courts of the U.S. of America will be the exclusive forum for the resolution of any complaint asserting a cause of action under the Securities Act, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, or employees. Our amended and restated certificate of incorporation and amended and restated bylaws provide that the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a breach of fiduciary duty, any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws, or any action asserting a claim against us that is governed by the internal affairs doctrine; provided that, the exclusive forum provision will not apply to suits brought to enforce any liability or duty created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction; and provided further that, if and only if the Court of Chancery of the State of Delaware dismisses any such action for lack of subject matter jurisdiction, such action may be brought in another state or federal court sitting in the State of Delaware. Our amended and restated certificate of incorporation and amended and restated bylaws also provide that the federal district courts of the U.S. of America will be the exclusive forum for the resolution of any complaint asserting a cause of action against us or any of our directors, officers, or employees arising under the Securities Act. Nothing in our amended and restated certificate of incorporation or amended and restated bylaws precludes stockholders that assert claims under the Exchange Act from bringing such claims in state or federal court, subject to applicable law. We believe these provisions may benefit us by providing increased consistency in the application of Delaware law and federal securities laws by chancellors and judges, as applicable, particularly experienced in resolving corporate disputes, efficient administration of cases on a more expedited schedule relative to other forums and protection against the burdens of multi-forum litigation. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims. If a court were to find the choice of forum provision that will be contained in our amended and restated certificate of incorporation or amended and restated bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could materially adversely affect our business, financial condition, and results of operations. General Risk Factors We incur significant expenses as a result of being a public company, which could materially adversely affect our business, financial condition, and results of operations. As a public company, we incur significant legal, accounting, and other expenses that we did not incur as a private company. We are subject to the reporting requirements of the Exchange Act, the applicable requirements of the Sarbanes-Oxley Act of 2002 (the Sarbanes-Oxley Act), the Dodd-Frank Wall Street Reform and Consumer Protection Act, the rules and regulations of the SEC, and the Listing Rules of the Nasdaq Global Select Market. Stockholder activism and the level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional significant compliance costs and impact the manner in which we operate our business in ways we cannot currently anticipate. The increased costs will increase our net loss or decrease our net income, and may require us to reduce costs in other areas of our business or increase our service fees which could result in a reduction in bookings. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, on our board committees, or as executive officers. Furthermore, if we are unable to satisfy our obligations as a public company, we could be subject to delisting of our Class A common stock, fines, sanctions, and other regulatory action and potentially civil litigation. Further, the majority of our management team, including our Chief Executive Officer and Chief Financial Officer, have limited experience in managing publicly-traded companies. These obligations and constituents have and will require significant attention from

our senior management and could divert their attention away from the day-to-day management of our business, and could materially adversely affect our business, financial condition, and results of operations. Failure to maintain effective internal control over financial reporting could have a material adverse effect on our business, financial condition, results of operations, and stock price and may adversely affect investor confidence in our company and, as a result, the value of our Class A common stock and your investment. Section 404 of the Sarbanes-Oxley Act, requires us to evaluate the effectiveness of our internal controls over financial reporting as of the end of each fiscal year, including a management report assessing the effectiveness of our internal controls over financial reporting, and a report issued by our independent registered public accounting firm on that assessment. Our ability to comply with the annual internal control reporting requirements will depend on the effectiveness of our financial reporting and data systems and controls across our company. We expect these systems and controls to require additional investment as we become increasingly more complex and our business grows. To effectively manage this complexity, we will need to continue to maintain and revise our operational, financial and management controls, and our reporting systems and procedures. Certain weaknesses or deficiencies or failures to implement required new or improved controls, or difficulties encountered in the implementation or operation of these controls, could harm our operating results and cause us to fail to meet our financial reporting obligations, or result in material misstatements in our financial statements, which could adversely affect our business and reduce our stock price. Further, we cannot assure you that the measures we have taken to date, and actions we may take in the future, will be sufficient to prevent or avoid potential future material weaknesses. A material weakness in our internal control over financial reporting could result in an increased probability of fraud, the potential loss of customers, litigation from our stockholders, reduction in our ability to obtain financing, and require additional expenditures to remediate. Our failure to implement and maintain effective internal control over financial reporting could result in errors in our financial statements that could result in loss of investor confidence in the accuracy and completeness of our financial reports and a decline in our stock price, and we could be subject to sanctions or investigations by the SEC or other regulatory authorities. Changes in accounting principles or their application to us could result in unfavorable accounting charges or effects, which could adversely affect our operating results and prospects. We prepare Unaudited Condensed Consolidated Financial Statements in accordance with accounting principles generally accepted in the U.S. The accounting for our business is subject to change based on the evolution of our business model, interpretations of relevant accounting principles, enforcement of existing or new regulations, and changes in policies, rules, regulations, and interpretations of accounting and financial reporting requirements of the SEC or other regulatory agencies. A change in any of these principles or guidance, or in their interpretations or application to us, may have a significant effect on our reported results, as well as our processes and related controls, and may retroactively affect previously reported results, which may negatively impact our financial statements, which may in turn adversely affect our prospects. It is difficult to predict the impact of future changes to accounting principles and accounting policies over financial reporting, any of which could adversely affect our financial condition and results of operations and could require significant investment in systems and personnel. Changes to tax laws could impact our financial results and operations. Our operations are subject to income and transaction taxes in the U.S. and in multiple foreign jurisdictions. A change in the tax law in the jurisdictions in which we do business, including an increase in tax rates, an adverse change in the treatment of an item of income or expense or a decrease in tax rates in a jurisdiction in which we have significant deferred tax assets, could result in a material increase in tax expense. Additionally, changes in tax laws could impact cash flow due to changes in timing of payments required as well as the overall rate we are required to pay. The application of tax laws and related regulations is subject to legal and factual interpretation, judgment and uncertainty. We cannot determine whether any legislative proposals may be enacted into law or what, if any, changes may be made to such proposals prior to their being enacted into law. If U.S. or 85 international tax laws change in a manner that increases our tax obligation, it could result in a material adverse impact on our results of operations and our financial position. The Tax Cuts and Jobs Act of 2017 changed the law with respect to the treatment of research and development expenditures. Effective January 2022, the option to deduct these expenditures currently was eliminated and instead requires taxpayers to capitalize and amortize them pursuant to Internal Revenue Code Section 174. This has increased our tax provision and our cash tax payable since 2022. If the requirement to capitalize Section 174 expenditures is not modified, it may also impact our tax provision and our cash tax liability in future years. The Organization for Economic Co-operation and Development ("OECD"), an international association of 38 countries including the U.S., has proposed changes to numerous long-standing tax principles, including a global minimum tax initiative. On December 12, 2022, the European Union member states agreed to implement the OECD's Pillar 2 global corporate minimum tax rate of 15% on companies with revenues of at least EUR 750,000, which would go into effect in 2024. While we not currently have revenues above that threshold, with continued growth it may reach that level in future years. Accordingly, we will continue to monitor and evaluate the potential consequences of Pillar 2 on our longer-term financial position. A valuation allowance is provided against deferred tax assets unless it is more-likely-than-not that they will be realized based on all available positive and negative evidence. Such evidence, which requires management's judgment, includes, but is not limited to, recent cumulative earnings or losses, expectations of future income, and the carryforward periods available for the utilization of deferred tax assets. As of December 31, 2023, the Company continues to maintain a valuation allowance against all of its U.S. federal and state deferred tax assets. To the extent sufficient positive evidence becomes available, we may release all or a portion of our valuation allowance in one or more future periods. A release of the valuation allowance, if any, would result in the recognition of certain deferred tax assets and a material income tax benefit for the period in which such a release is recorded. If our estimates or judgments relating to our critical accounting policies are based on assumptions that change or prove to be incorrect, our operating results could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our common stock. The preparation of financial statements in conformity with generally accepted accounting principles in the U.S. requires us to make estimates and assumptions that affect the reported amount of assets and liabilities and the disclosure of contingent liabilities as of the date of the financial statements and the reported amount of revenues and expenses during the reporting period. For example, we make certain assumptions about the interpretation of these principles and accounting treatment of our non-cash stock-based compensation expense and related obligations with respect to our financial statements. If these assumptions turn out to be unfounded, our stock-based compensation expense could be materially higher than expected for current and future periods, which could have a material adverse effect on our net income (loss). We base estimates and assumptions on historical experience and on various other factors that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenue and expenses that are not readily apparent from other sources. We may make estimates regarding activities for which the accounting treatment is still uncertain. Actual results could differ from those estimates. If our assumptions change or if actual circumstances differ from our assumptions, our operating results may be adversely affected and could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our common stock. We are subject to a series of risks associated with scrutiny of environmental, social, sustainability, and related corporate responsibility matters. Companies across industries are facing increasing scrutiny from a variety of stakeholders related to their environmental, social, sustainability, and related corporate responsibility ("ESG") practices. For example, various groups produce ESG scores or ratings based at least in part on a company's ESG disclosures, and certain market participants, including institutional investors and capital providers, use such ratings to assess companies' ESG profiles. Unfavorable perceptions of our ESG performance could negatively impact our business, whether from a reputational perspective, through a reduction in interest in purchasing our stock or products, issues in attracting/retaining employees, customers and business partners, or otherwise. Simultaneously, there are efforts by some stakeholders to reduce companies' efforts on certain ESG-related matters. Both advocates and opponents to certain ESG matters are increasingly resorting to a range of activism forms, including media campaigns and litigation, to advance their perspectives. To the extent we are subject to such activism, it may require us to incur costs or otherwise adversely impact our business. While we have engaged, and expect to continue to engage in, certain voluntary initiatives (such as voluntary disclosures, certifications, or goals) to improve the ESG profile of our company and/or products or respond to stakeholder concerns, such initiatives may be costly and may not have the desired effect. Expectations around company's management of ESG matters continues to evolve rapidly, in many instances due to factors that are out of our control. For example, actions or statements that we may take based on expectations, assumptions, or third-party information that we currently believe to be reasonable may subsequently be determined to be erroneous or not in keeping with best practice. We may also be unable to complete certain initiatives or targets, either on timelines/costs initially anticipated or at all. If we fail to, or are perceived to fail to, comply with or advance certain ESG initiatives (including the manner in which we complete such initiatives), we may be subject to various adverse impacts, including reputational damage and potential stakeholder engagement and/or litigation, even if such initiatives are currently voluntary. There are also increasing regulatory expectations for ESG matters. For example, various policymakers, including the SEC and the State of California, have adopted (or are considering adopting) requirements for the disclosure of certain climate-related information or other ESG disclosures. This and other stakeholder expectations will likely lead to increased costs as well as scrutiny that could heighten all of the risks identified in this risk factor. Additionally, certain of our customers, business partners, and suppliers may be subject to similar expectations, which may augment or create additional risks, including risks that may not be known to us. Item 2. Unregistered Sales of Equity Securities and Use of Proceeds. None. Item 3. Defaults Upon Senior Securities. None. Item 4. Mine Safety Disclosures. Not applicable. Item 5. Other Information. (a) None. (b) Trading Plans. On September 10, 2024, Dr. Severin Hacker, Chief Technology Officer and Director, entered into a 10b5-1 sales plan (the "Hacker 10b5-1 Sales Plan") intended to satisfy the affirmative defense of Rule 10b5-1(c) of the Exchange Act and providing for the potential exercise of vested stock options and the associated sale of up to 504,248 shares of the Company's Class A common stock. The Hacker 10b5-1 Sales Plan will remain in effect until the earlier of (1) December 4, 2025, (2) the date on which all trades set forth in the Hacker 10b5-1 Sales Plan have been executed, or (3) such time as the Hacker 10b5-1 Sales Plan is otherwise terminated according to its terms. No other officer (as defined in Rule 16a-1(f) under the Exchange Act) or director of the Company adopted, modified or terminated a 10b5-1 trading arrangement and/or 10b5-1 trading arrangements (each as defined in Item 408 of Regulation S-K) during the three months ended September 30, 2024. Item 6. Exhibits. Incorporated by Reference. Exhibit Number. Exhibit Description. Form File No. Date Filed. Herewith. 3.1 Amended and Restated Certificate of Incorporation, as currently in effect. 8-K001-406537/30/20213.13.2 Bylaws, as currently in effect. 8-K001-4065312/08/2023. 13.1 Certification of Principal Executive Officer pursuant to Exchange Act Rule 13a-14(a). X31.2 Certification of Principal Financial Officer pursuant to Exchange Act Rule 13a-14(a). X32.1 Certification of Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350X101. INS. Inline XBRL Instance Document - the Instance Document does not appear in the interactive data file because its XBRL tags are embedded within the Inline XBRL document. X101. SCH. Inline XBRL Taxonomy Extension Schema Document. X101. CAL. Inline XBRL Taxonomy Extension Calculation Linkbase Document. X101. DEF. Inline XBRL Taxonomy Extension Definition Linkbase Document. X101. LAB. Inline XBRL Taxonomy Extension Label Linkbase Document. X101. LA. Inline XBRL Taxonomy Extension Presentation Linkbase Document. X104. Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101). X. The certification attached as Exhibit 32.1 that accompanies this Quarterly Report on Form 10-Q pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, is not deemed filed by the Registrant for purposes of Section 18 of the Securities Exchange Act of 1934, as amended. 89 Signatures Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned to whom it is authorized. DUOLINGO, INC. Date: November 6, 2024. By: /s/ Luis von Ahn. Luis von Ahn, Chief Executive Officer (Principal Executive Officer). Date: November 6, 2024. By: /s/ Matthew Skaruppa. Matthew Skaruppa, Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer). 90 EX-31.1 2 q3fy24duolingo09-30x24ex311.htm EX-31.1 Document Exhibit 31.1 CERTIFICATION PURSUANT TO RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934. AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002 I, Luis von Ahn, certify that: 1. I have reviewed this Quarterly Report on Form 10-Q of Duolingo, Inc.; 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report; 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report; 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have: (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared; (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles; (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and 5. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have: (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared; (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles; (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions): (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting. Date: November 6, 2024. By: /s/ Matthew Skaruppa. Matthew Skaruppa, Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer) EX-32.1 4 q3fy24duolingo09-30x24ex321.htm EX-32.1 CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF



use assets disposed or adjusted, modifying operating leases liabilities Right-of-Use Asset , Increase (Decrease) From Modifications, Net, Operating Lease Liabilities Obligations under current leases Operating Lease, Liability, Current Total Shareholder Return Amount Total Shareholder Return Amount Common stock, shares issued (in shares) Common Stock, Shares, Issued Equity Awards Adjustments, Footnote Equity Awards Adjustments, Footnote [Text Block] Concentration risk (in percent) Concentration Risk, Percentage Insider Trading Policies and Procedures Adopted Insider Trading Policies and Procedures Adopted [Flag] Less: accumulated depreciation Accumulated Depreciation, Depletion and Amortization, Property, Plant, and Equipment Cash Total property and equipment Property, Plant and Equipment, Gross Stock options exercised (in shares) Exercised (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Exercises in Period Named Executive Officers, Footnote Named Executive Officers, Footnote [Text Block] Weighted- average exercise price Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Outstanding, Weighted Average Exercise Price [Abstract] Research and development Research and development Research and Development Expense [Member] Common stock, shares authorized (in shares) Common Stock, Shares Authorized Acquisition of companies, net of \$5 cash acquired Payments to Acquire Businesses, Net of Cash Acquired Basis of Presentation and Accounting Principles Basis of Accounting, Policy [Policy Text Block] Weighted-average shares in computing net income per share attributable to Class A and Class B common stockholders, diluted (in shares) Weighted Average Number of Shares Outstanding, Diluted Beijing, China Beijing, China [Member] Beijing, China MNPI Disclosure Timed for Compensation Value MNPI Disclosure Timed for Compensation Value [Flag] Remainder of 2024 Finite-Lived Intangible Asset, Expected Amortization, Remainder of Fiscal Year Fair Value, Net Derivative Asset (Liability) Measured on Recurring Basis, Unobservable Input Reconciliation [Table] Fair Value, Net Derivative Asset (Liability) Measured on Recurring Basis, Unobservable Input Reconciliation [Table] Total stockholders' equity Beginning balance Ending balance Equity, Attributable to Parent Renewal term (in years) Lessee, Operating Lease, Renewal Term Balance Sheet Location [Axis] Statement of Financial Position Location, Balance [Axis] Schedule of Goodwill Schedule of Goodwill [Table Text Block] PROPERTY and EQUIPMENT, net Property, Plant and Equipment Disclosure [Text Block] Concentration Risk Type [Domain] Concentration Risk Type [Domain] Letters of credit Letters of Credit Outstanding, Amount Defined benefit plan, contributions by employer Defined Contribution Plan, Cost Accounts receivable Accounts Receivable, after Allowance for Credit Loss, Current Granted (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Grants in Period, Gross Cost of revenues Cost of revenues Cost of Sales [Member] Antidilutive Securities Excluded from Computation of Earnings Per Share [Line Items] Antidilutive Securities Excluded from Computation of Earnings Per Share [Line Items] Impairment Asset Impairment Charges Pension Adjustments Prior Service Cost Pension Adjustments Prior Service Cost [Member] Document Fiscal Period Focus Document Fiscal Period Focus Thereafter Finite-Lived Intangible Asset, Expected Amortization, After Year Four Finite-Lived Intangible Asset, Expected Amortization, After Year Four Acquisition costs Business Combination, Acquisition Related Costs All Executive Categories All Executive Categories [Member] Stock options and RSUs outstanding (in shares) Incremental Common Shares Attributable to Dilutive Effect of Share-Based Payment Arrangements Employer matching contribution, percent of match (in percent) Defined Contribution Plan, Employer Matching Contribution, Percent of Match Balance Sheet Location [Domain] Statement of Financial Position Location, Balance [Domain] 2026 Finite-Lived Intangible Asset, Expected Amortization, Year Two Changed Peer Group, Footnote Changed Peer Group, Footnote [Text Block] Weighted average remaining contractual term (in years), outstanding Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Outstanding, Weighted Average Remaining Contractual Term Other Product And Service, Other Miscellaneous [Member] Product And Service, Other Miscellaneous Number of days to take exam Contract With Customer, Threshold To Take Exam Contract With Customer, Threshold To Take Exam Goodwill recognized is expected to be deductible for income tax Business Acquisition, Goodwill, Expected Tax Deductible Amount ASSETS Assets [Abstract] Document Type Document Type Commercial paper Commercial Paper [Member] Pension Benefits Adjustments, Footnote Pension Benefits Adjustments, Footnote [Text Block] Total Shareholder Return Vs Peer Group Total Shareholder Return Vs Peer Group [Text Block] Capitalized software Computer Software, Intangible Asset [Member] Google Google [Member] Google Weighted average remaining contractual term (in years), exercisable Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Exercisable, Weighted Average Remaining Contractual Term Schedule of Defined Benefit Plans Disclosures [Table] Defined Benefit Plan [Table] Released (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Vested in Period Schedule of Deferred Revenues Contract with Customer, Contract Asset, Contract Liability, and Receivable [Table Text Block] Schedule of Intangible Assets, Future Amortization Expense Schedule of Finite-Lived Intangible Assets, Future Amortization Expense [Table Text Block] Maximum Maximum [Member] Number of RSUs eligible to vest (in shares) Share-Based Payment Arrangement, Equity Instruments Other Than Options, Number Of Shares Eligible To Vest At Stock Price Hurdle Share-Based Payment Arrangement, Equity Instruments Other Than Options, Number Of Shares Eligible To Vest At Stock Price Hurdle Equity Valuation Assumption Difference, Footnote Equity Valuation Assumption Difference, Footnote [Text Block] Class A and Class B Common Stock Class A And Class B Common Stock [Member] Class A And Class B Common Stock Total estimated future amortization expense Finite-Lived Intangible Assets, Net Furniture, fixtures and equipment Furniture and Fixtures [Member] 2011 Equity Incentive Plan 2011 Equity Incentive Plan [Member] 2011 Equity Incentive Plan Accounts payable Accounts Payable, Current Accounting Policies [Abstract] Leasehold improvements Leasehold Improvements [Member] In-App Purchases In-App Purchases [Member] In-App Purchases Fair Value Fair Value Measurement, Policy [Policy Text Block] Other-than-temporary impairments Other-than-temporary Impairment Loss, Debt Securities, Portion Recognized in Earnings Amortized Cost Debt Securities, Held-to-Maturity, Amortized Cost, after Allowance for Credit Loss ACQUISITIONS Business Combination Disclosure [Text Block] Current Fiscal Year End Date Current Fiscal Year End Date Present value adjustment Lessee, Operating Lease, Liability, Undiscounted Excess Amount Total lease cost Lease, Cost Statistical Measurement [Axis] Statistical Measurement [Axis] PEO Name PEO Name Non-Rule 10b5-1 Arrangement Terminated Non-Rule 10b5-1 Arrangement Terminated [Flag] Income before income taxes Income before income taxes Income (Loss) from Continuing Operations before Income Taxes, Noncontrolling Interest Grantee Status [Domain] Grantee Status [Domain] Non-PEO NEO Average Total Compensation Amount Non-PEO NEO Average Total Compensation Amount Vesting [Axis] Vesting [Axis] Award Type [Domain] Award Type [Domain] Name Outstanding Recovery, Individual Name Cash and cash equivalents Business Combination, Recognized Identifiable Assets Acquired and Liabilities Assumed, Cash and Equivalents Disaggregation of Revenue [Line Items] Disaggregation of Revenue [Line Items] Release of performance stock units (in shares) Shares Issued, Shares, Share-Based Payment Arrangement, after Forfeiture Variable lease cost Variable Lease, Cost Compensation Actually Paid vs. Company Selected Measure Compensation Actually Paid vs. Company Selected Measure [Text Block] Purchase price Total purchase price Business Combination, Recognized Identifiable Assets Acquired, Goodwill, and Liabilities Assumed, Net Deferred tax assets, net Deferred Income Tax Assets, Net Non-PEO NEO Non-PEO [Member] Title of Individual [Axis] Title and Position [Axis] Additional Paid-In Capital Additional Paid-in Capital [Member] Award Timing Predetermined Award Timing Predetermined [Flag] Amortization of capitalized computer software Capitalized Computer Software, Amortization Restricted cash Restricted Cash, Noncurrent Recently Issued Pronouncements Not Yet Adopted and Recently Adopted Accounting Pronouncements New Accounting Pronouncements, Policy [Policy Text Block] Forecast Forecast [Member] Net income per share attributable to Class A and Class B common stockholders, diluted (in usd per share) Diluted income per common share (in usd per share) Earnings Per Share, Diluted Class of Stock [Axis] Class of Stock [Axis] Subscription License and Service [Member] Number of users Contract With Customer, Number Of Users Per Subscription Contract With Customer, Number Of Users Per Subscription Title of Individual [Domain] Title and Position [Domain] Finite-Lived Intangible Assets by Major Class [Axis] Finite-Lived Intangible Assets by Major Class [Axis] Less: accumulated amortization Finite-Lived Intangible Assets, Accumulated Amortization Revenue Revenue from Contract with Customer [Policy Text Block] Schedule of Intangible Assets Amortization Expense Finite-Lived Intangible Assets Amortization Expense [Table Text Block] Name Measure Name Entity Interactive Data Current Entity Interactive Data Current Series of Individually Immaterial Business Acquisitions Series of Individually Immaterial Business Acquisitions [Member] Deferred revenue increase (Decrease) in Contract with Customer, Liability Restatement does not require Recovery Restatement Does Not Require Recovery [Text Block] Award vesting percentage (in percent) Share-Based Compensation Arrangement by Share-Based Payment Award, Award Vesting Rights, Percentage Employer matching contribution, percent of employees' gross pay (in percent) Defined Contribution Plan, Employer Matching Contribution, Percent of Employees' Gross Pay Customer [Axis] Customer [Axis] Disaggregation of Revenue [Table] Disaggregation of Revenue [Table] Statement of Financial Position [Abstract] 4 Share-Based Payment Arrangement, Tranche Four [Member] Share-Based Payment Arrangement, Tranche Four Stock-based compensation expense Share-Based Payment Arrangement, Noncash Expense Initial base rent (in percent) Lessee, Operating Lease, Liability, Base Rent Increase, Percentage Per Year Lessee, Operating Lease, Liability, Base Rent Increase, Percentage Per Year Sales and marketing Selling and Marketing Expense 2 Share-Based Payment Arrangement, Tranche Two [Member] Provision (benefit) for income taxes Income Tax Expense (Benefit) Fair Value, Assets Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] Fair Value, Assets Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] Forfeited and expired (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Forfeitures and Expirations in Period Supplemental disclosure of cash flow information: Supplemental Cash Flow Information [Abstract] Unrecognized compensation cost, weighted-average period of recognition (in years) Share-Based Payment Arrangement, Nonvested Award, Cost Not yet Recognized, Period for Recognition Revenues Revenue from contract with customer, excluding assessed tax Revenue from Contract with Customer, Excluding Assessed Tax Other income (expense), net Nonoperating Income (Expense) Concentration Risk Benchmark [Domain] Concentration Risk Benchmark [Domain] Cash Equivalents Cash Equivalents, at Carrying Value Effective tax rate Effective Income Tax Rate Reconciliation, Percent Net cash used for investing activities Net Cash Provided by (Used in) Investing Activities Income (loss) from operations Operating Income (Loss) Additional shares authorized (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Number of Additional Shares Authorized Business Acquisition [Line Items] Business Acquisition [Line Items] Total liabilities and stockholders' equity Liabilities and Equity SUBSEQUENT EVENTS Subsequent Events [Text Block] Rule 10b5-1 Arrangement Terminated Rule 10b5-1 Arrangement Terminated [Flag] All Adjustments to Compensation All Adjustments to Compensation [Member] Fair Value Hierarchy and NAV [Axis] Fair Value Hierarchy and NAV [Axis] Prepaid expenses and other current assets Increase (Decrease) in Prepaid Expense and Other Assets Additional paid-in capital Additional Paid in Capital Increased in monthly base rate Lessee, Operating Lease, Liability, Fixed Amount To Be Paid, Per Month Lessee, Operating Lease, Liability, Fixed Amount To Be Paid, Per Month Commitments and Contingencies Disclosure [Abstract] Finite-Lived Intangible Assets, Major Class Name [Domain] Finite-Lived Intangible Assets, Major Class Name [Domain] Schedule of Share-based Payment Arrangement, RSU, Activity Share-Based Payment Arrangement, Restricted Stock and Restricted Stock Unit, Activity [Table Text Block] Right of use assets obtained in exchange for new operating lease liabilities Right-of-use assets obtained in exchange for new operating lease liabilities Right-of-Use Asset Obtained in Exchange for Operating Lease Liability Underlying Security Market Price Change Underlying Security Market Price Change, Percent Scenario [Domain] Scenario [Domain] Individual: Individual [Axis] Taxes paid related to net-share settlement of share-based compensation awards Share-Based Payment Arrangement, Decrease for Tax Withholding Obligation Number of languages, more than Number Of Languages Number Of Languages Earnings Per Share, Diluted, by Common Class, Including Two Class Method [Line Items] Earnings Per Share, Diluted, by Common Class, Including Two Class Method [Line Items] Product and Service [Axis] Product and Service [Axis] Entity Address, State or Province Entity Address, State or Province Property, Plant and Equipment [Line Items] Property, Plant and Equipment [Line Items] Statement [Line Items] Statement [Line Items] Erroneous Compensation Analysis Erroneous Compensation Analysis [Text Block] Operating expenses: Operating Expenses [Abstract] Defined Benefit Plan Disclosure [Line Items] Defined Benefit Plan Disclosure [Line Items] Schedule of Property and Equipment Property, Plant and Equipment [Table Text Block] Compensation Actually Paid vs. Total Shareholder Return Compensation Actually Paid vs. Total Shareholder Return [Text Block] Thereafter Lessee, Operating Lease, Liability, to be Paid, After Year Four Lessee, Operating Lease, Liability, to be Paid, After Year Four Financial Instruments [Domain] Financial Instruments [Domain] Vesting [Domain] Vesting [Domain] Total consideration Business Combination, Consideration Transferred Beginning balance (in usd per share) Ending balance (in usd per share) Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Nonvested, Weighted Average Grant Date Fair Value LIABILITIES AND STOCKHOLDERS' EQUITY Liabilities and Equity [Abstract] Allowance for Credit Losses Credit Loss, Financial Instrument [Policy Text Block] Minimum Minimum [Member] Restatement Determination Date Restatement Determination Date Schedule of Net Unrealized Gains (Losses), and Fair Value by Major Security Type for Our Investments Fair Value, Liabilities Measured on Recurring and Nonrecurring Basis [Table Text Block] Adoption Date Trading Arrangement Adoption Date Pay vs Performance Disclosure Pay vs Performance Disclosure [Table] Property, Plant and Equipment [Table] Property, Plant and Equipment [Table] Outstanding, beginning balance (in usd per share) Outstanding, ending balance (in usd per share) Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Outstanding, Weighted Average Exercise Price Concentration Risk [Table] Concentration Risk [Table] Operating lease right-of-use assets Operating Lease, Right-of-Use Asset Erroneously Awarded Compensation Recovery Erroneously Awarded Compensation Recovery [Table] Options outstanding, beginning balance (in shares) Options outstanding, ending balance (in shares) Options outstanding (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Outstanding, Number Capitalized software development costs Capitalized Computer Software, Additions Percentage of letter of credit (in percent) Restricted Cash, Noncurrent As A Percentage of Outstanding Letter Of Credit Restricted Cash, Noncurrent As A Percentage of Outstanding Letter Of Credit Other liabilities assumed Business Combination, Recognized Identifiable Assets Acquired and Liabilities Assumed, Noncurrent Liabilities, Other Change in Fair Value as of Vesting Date of Prior Year Equity Awards Vested in Covered Year Change in Fair Value as of Vesting Date of Prior Year Equity Awards Vested in Covered Year [Member] Schedule of Share-based Payment Arrangement, Payment Award Disclosure of Share-Based Compensation Arrangements by Share-Based Payment Award [Table Text Block] Company stock price hurdle (in usd per share) Share-based Payment Arrangement, Equity Instruments Other Than Options, Stock Price Hurdle Share-based Payment Arrangement, Equity Instruments Other Than Options, Stock Price Hurdle Property, Plant and Equipment [Abstract] Exercise Price Award Exercise Price Stripe Stripe [Member] Stripe EARNINGS PER SHARE Earnings Per Share [Text Block] Arrangement Duration Trading Arrangement Duration Fair Value, Net Derivative Asset (Liability) Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] Fair Value, Net Derivative Asset (Liability) Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] Right of use assets disposed or adjusted modifying operating leases liabilities Right-of-Use Asset , Decrease From Modifications, Operating Lease Liabilities Right-of-Use Asset , Decrease From Modifications, Operating Lease Liabilities Stock options exercised Stock Issued During Period, Value, Stock Options Exercised Stockholders' equity Equity, Attributable to Parent [Abstract] Granted (in usd per share) Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Grants in Period, Weighted Average Grant Date Fair Value Gain from termination of leases Gain (Loss) on Termination of Lease Long-term investments Long-Term Investments Long-Term Investments Denominator: Earnings Per Share, Basic, Other Disclosure [Abstract] Income Taxes Income Tax, Policy [Policy Text Block] Peer Group Issuers, Footnote Peer Group Issuers, Footnote [Text Block] Schedule of Earnings Per Share, Diluted, by Common Class, Including Two Class Method [Table] Earnings Per Share, Diluted, by Common Class, Including Two Class Method [Table] Material Terms of Trading Arrangement Material Terms of Trading Arrangement [Text Block] 2028 Finite-Lived Intangible Asset, Expected Amortization, Year Four All Individuals All Individuals [Member] Term before rent increase Lessee, Operating Lease, Term Before Rent Increase Lessee, Operating Lease, Term Before Rent Increase PEO PEO [Member] Contingent consideration Business Combination, Contingent Consideration, Asset, Current Gross Unrealized Losses Debt Securities, Held-to-Maturity, Accumulated Unrecognized Loss Income Tax Disclosure [Abstract] Name Trading Arrangement, Individual Name Statement of Stockholders' Equity [Abstract] Intangible assets, net Intangible assets, net Intangible Assets, Net (Excluding Goodwill) Long-Lived Tangible Asset [Axis] Long-Lived Tangible Asset [Axis] Lease term (in months) Lessee, Operating Lease, Remaining Lease Term Unrecognized compensation expense, excluding options Share-Based Payment Arrangement, Nonvested Award, Excluding Option, Cost Not yet Recognized, Amount Business Combination, Asset Acquisition, and Joint Venture Formation [Abstract] Awards Close in Time to MNPI Disclosures, Table Awards Close in Time to MNPI Disclosures [Table Text Block] 3 Share-Based Payment Arrangement, Tranche Three [Member] Common stock reserved for future issuance (in shares) Common Stock, Capital Shares Reserved for Future Issuance Prior Year End Fair Value of Equity Awards Granted in Any Prior Year that Fail to Meet Applicable Vesting Conditions During Covered Year Prior Year End Fair Value of Equity Awards Granted in Any Prior Year that Fail to Meet Applicable Vesting Conditions During Covered Year [Member] Numerator: Net Income (Loss) Attributable to Redeemable Noncontrolling Interest [Abstract] Aggregate Erroneous Compensation Amount Aggregate Erroneous Compensation Amount 9 Share-Based Payment Arrangement, Tranche Nine [Member] Share-Based Payment Arrangement, Tranche Nine Local Phone Number Local Phone Number Next 2% of Employee Elective Deferred Matching Contribution, Portion Two [Member] Matching Contribution, Portion Two Aggregate Erroneous Compensation Not Yet Determined Aggregate Erroneous Compensation Not Yet Determined [Text Block] Total operating expenses Operating Expenses Deferred tax liabilities, net Deferred

Income Tax Liabilities, Net Postemployment Benefits [Abstract] Capitalized software expense and purchases of intangible assets Payments For Software And Purchases Of Intangible Assets Payments For Software And Purchases Of Intangible Assets Apple [Member] Apple Share-based Compensation Arrangement by Share-based Payment Award, Options, Additional Disclosures [Abstract] Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Additional Disclosures [Abstract] Award service period (in years) Share-Based Compensation Arrangement by Share-Based Payment Award, Award Requisite Service Period Changes in assets and liabilities: Increase (Decrease) in Operating Capital [Abstract] PEO Total Compensation Amount PEO Total Compensation Amount Intangible assets, net Business Combination, Recognized Identifiable Assets Acquired and Liabilities Assumed, Finite-Lived Intangibles Long-Lived Tangible Asset [Domain] Long-Lived Tangible Asset [Domain] Income Statement Location [Axis] Statement of Income Location, Balance [Axis] Deferral of revenue Contract With Customer, Liability, Increase From Deferral Of Revenue Contract With Customer, Liability, Increase From Deferral Of Revenue Cash and Cash Equivalents Cash and Cash Equivalents, Policy [Policy Text Block] Cost related to improvement to the premise Lessee, Operating Lease, Allowance For Leasehold Improvements Lessee, Operating Lease, Allowance For Leasehold Improvements COMMITMENTS AND CONTINGENCIES Commitments and Contingencies Disclosure [Text Block] Common Stock Common Stock [Member] Measure: Measure [Axis] Forgone Recovery due to Expense of Enforcement, Amount Forgone Recovery due to Expense of Enforcement, Amount Other current assets acquired Business Combination, Recognized Identifiable Assets Acquired and Liabilities Assumed, Current Assets, Other Schedule of Business Acquisitions, by Acquisition [Table] Schedule of Business Acquisitions, by Acquisition [Table] Entity Emerging Growth Company Entity Emerging Growth Company Taxes paid related to net-share settlement of share-based compensation awards (in shares) Share-Based Payment Arrangement, Shares Withheld for Tax Withholding Obligation Entity Central Index Key Entity Central Index Key Scenario [Axis] Scenario [Axis] General and administrative General and administrative General and Administrative Expense [Member] Lessee, Lease, Description [Table] Lessee, Lease, Description [Table] Non-GAAP Measure Description Non-GAAP Measure Description [Text Block] Advertising Advertising [Member] Non-PEO NEO Average Compensation Actually Paid Amount Non-PEO NEO Average Compensation Actually Paid Amount Award Timing, How MNPI Considered Award Timing, How MNPI Considered [Text Block] Equity Component [Domain] Equity Component [Domain] Financial Instrument [Axis] Financial Instrument [Axis] Pittsburgh, Pennsylvania Pittsburgh, Pennsylvania [Member] Pittsburgh, Pennsylvania Additional 402(v) Disclosure Additional 402(v) Disclosure [Text Block] Stock-based compensation expense APIC, Share-Based Payment Arrangement, Increase for Cost Recognition Entity Shell Company Entity Shell Company Share-Based Payment Arrangement, Founders Share-Based Payment Arrangement, Founders [Member] Share-Based Payment Arrangement, Founders Entity Incorporation, State or Country Code Entity Incorporation, State or Country Code Common Class B Common Class B [Member] Title Trading Arrangement, Individual Title Statement [Table] Statement [Table] SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES Significant Accounting Policies [Text Block] City Area Code City Area Code Current liabilities Liabilities, Current [Abstract] Insider Trading Policies and Procedures Not Adopted Insider Trading Policies and Procedures Not Adopted [Text Block] Level 1 Fair Value, Inputs, Level 1 [Member] Concentration Risk Benchmark [Axis] Concentration Risk Benchmark [Axis] Total current assets Assets, Current Statement of Cash Flows [Abstract] 2021 Plan 2021 Incentive Award Plan [Member] 2021 Incentive Award Plan Accrued expenses and other current liabilities Increase (Decrease) in Accrued Liabilities Expiration period to take exams (in years) Contract With Customer, Threshold Period To Take Exam For Bulk Purchase Contract With Customer, Threshold Period To Take Exam For Bulk Purchase Number of options exercisable (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Exercisable, Number Document Information [Line Items] Document Information [Line Items] Weighted- average grant date fair value per share Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Nonvested, Weighted Average Grant Date Fair Value [Abstract] Weighted average grant date fair value (in usd per share) Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Grants in Period, Weighted Average Grant Date Fair Value Investment in SAFE Equity Securities without Readily Determinable Fair Value, Amount Other intangible assets Other Intangible Assets [Member] INCOME TAXES Income Tax Disclosure [Text Block] Settlement period after vesting (in years) Share-based Compensation Arrangement by Share-based Payment Award, Settlement Period After Vesting Share-based Compensation Arrangement by Share-based Payment Award, Settlement Period After Vesting 2028 Lessee, Operating Lease, Liability, to be Paid, Year Four Earnings Per Share [Abstract] Equity [Abstract] Accumulated deficit Retained Earnings (Accumulated Deficit) Class of Stock [Domain] Class of Stock [Domain] Forfeited and expired (in usd per share) Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Forfeitures and Expirations in Period, Weighted Average Exercise Price Revenue from Contract with Customer Benchmark Revenue from Contract with Customer Benchmark [Member] General and administrative General and Administrative Expense Organization, Consolidation and Presentation of Financial Statements [Abstract] Aggregate Available Trading Arrangement, Securities Aggregate Available Amount Equity Awards Adjustments Equity Awards Adjustments [Member] Weighted-average discount rate Operating Lease, Weighted Average Discount Rate, Percent Operating lease liabilities Operating Lease, Liability Net cash provided by (used for) financing activities Net Cash Provided by (Used in) Financing Activities Underlying Securities Award Underlying Securities Amount Performance Based RSUs Founder awards where performance has been met Performance Shares [Member] Amendment Flag Amendment Flag Entity Registrant Name Entity Registrant Name Payments to acquire businesses Payments to Acquire Businesses, Gross Loss on disposal of leasehold improvements Gain (Loss) on Disposition of Property Plant Equipment Debt securities, held to maturity Debt Securities, Held-To-Maturity, Amortized Cost, after Allowance For Credit Loss, Noncurrent Adjustment to Non-PEO NEO Compensation Footnote Adjustment to Non-PEO NEO Compensation Footnote [Text Block] Stock Appreciation Rights (SARs) Stock Appreciation Rights (SARs) [Member] Depreciation and amortization Depreciation, Depletion and Amortization Gross profit Gross Profit INTANGIBLE ASSETS AND GOODWILL Intangible Assets Disclosure [Text Block] Fair Value as of Grant Date Award Grant Date Fair Value Customer Concentration Risk Customer Concentration Risk [Member] Subsequent Events [Abstract] 8 Share-Based Payment Arrangement, Tranche Eight [Member] Share-Based Payment Arrangement, Tranche Eight Level 2 Fair Value, Inputs, Level 2 [Member] Amortized Cost Debt Securities, Held-To-Maturity, Amortized Cost, After Allowance For Credit Loss And Cash Equivalents, Carrying Value Debt Securities, Held-To-Maturity, Amortized Cost, After Allowance For Credit Loss And Cash Equivalents, Carrying Value Fair Value Hierarchy and NAV [Domain] Fair Value Hierarchy and NAV [Domain] Geographical [Domain] Geographical [Domain] Recovery of Erroneously Awarded Compensation Disclosure [Line Items] Schedule of Disaggregation of Revenue Disaggregation of Revenue [Table Text Block] Goodwill, tax deductible amount Goodwill, Tax Deductible Amount Goodwill, Tax Deductible Amount Acquired technology Technology-Based Intangible Assets [Member] Entity Address, Postal Zip Code Entity Address, Postal Zip Code Advertising costs Advertising Expense Schedule of Share-based Payment Arrangement, Expensed, Amount Share-Based Payment Arrangement, Expensed and Capitalized, Amount [Table Text Block] Principles of Consolidation Consolidation, Policy [Policy Text Block] Restatement Determination Date: Restatement Determination Date [Axis] Title of 12(b) Security Title of 12(b) Security Concentration Risk Type [Axis] Concentration Risk Type [Axis] Class A common stock, \$0.0001 par value; 2,000,000 shares authorized as of September 30, 2024 and December 31, 2023; 37,857 and 36,311 issued and outstanding at September 30, 2024 and December 31, 2023, respectively Class B common stock, \$0.0001 par value; 30,000 shares authorized as of September 30, 2024 and December 31, 2023; 6,087 and 6,215 issued and outstanding at September 30, 2024 and December 31, 2023, respectively Common Stock, Value, Issued Cash and cash equivalents Cash and cash equivalents Cash and Cash Equivalents, at Carrying Value Grantee Status [Axis] Grantee Status [Axis] Year-over-Year Change in Fair Value of Equity Awards Granted in Prior Years That are Outstanding and Unvested Year-over-Year Change in Fair Value of Equity Awards Granted in Prior Years That are Outstanding and Unvested [Member] 6 Share-Based Payment Arrangement, Tranche Six [Member] Share-Based Payment Arrangement, Tranche Six Finite-Lived Intangible Assets [Line Items] Finite-Lived Intangible Assets [Line Items] Forfeited (in usd per share) Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Forfeitures, Weighted Average Grant Date Fair Value Area of office building Lessee, Operating Lease, Area Of Office Building Lessee, Lease, Area Of Office Building Recognition of deferred revenue Contract with Customer, Liability, Revenue Recognized, Excluding Opening Balance Contract with Customer, Liability, Revenue Recognized, Excluding Opening Balance Cash flows from financing activities: Net Cash Provided by (Used in) Financing Activities [Abstract] Year-end Fair Value of Equity Awards Granted in Covered Year that are Outstanding and Unvested Year-end Fair Value of Equity Awards Granted in Covered Year that are Outstanding and Unvested [Member] Concentration Risk [Line Items] Concentration Risk [Line Items] Number of tranches Share-based Compensation Arrangement By Share-based Payment Award, Award Requisite Service Period, Number Of Tranches Share-Based Compensation Arrangement By Share-based Payment Award, Award Requisite Service Period, Tranche Operating lease, liability, current, statement of financial position, [extensible enumeration] Operating Lease, Liability, Current, Statement of Financial Position [Extensible Enumeration] Number of options Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Outstanding [Roll Forward] Cash and Cash Equivalents [Domain] Cash and Cash Equivalents [Domain] Net income per share attributable to Class A and Class B common stockholders, basic (in usd per share) Basic income per common share (in usd per share) Earnings Per Share, Basic Accounts payable Increase (Decrease) in Accounts Payable Cash paid for amounts included in the measurement of lease liabilities Operating Lease, Payments Cash acquired during acquisition Cash Acquired from Acquisition Adjustment To PEO Compensation, Footnote Adjustment To PEO Compensation, Footnote [Text Block] Award Timing MNPI Disclosure Award Timing MNPI Disclosure [Text Block] Share-based compensation, term of award (in years) Share-Based Compensation Arrangement by Share-Based Payment Award, Expiration Period Dr. Severin Hacker [Member] Dr. Severin Hacker Property and equipment included in Current liabilities Capital Expenditures Incurred but Not yet Paid Aggregate Pension Adjustments Service Cost Aggregate Pension Adjustments Service Cost [Member] Compensation Actually Paid vs. Other Measure Compensation Actually Paid vs. Other Measure [Text Block] Total current liabilities Liabilities, Current Vesting Date Fair Value of Equity Awards Granted and Vested in Covered Year Vesting Date Fair Value of Equity Awards Granted and Vested in Covered Year [Member] Unrecognized compensation cost, options Share-Based Payment Arrangement, Nonvested Award, Option, Cost Not yet Recognized, Amount Total assets Assets Concentration of Credit Risk Concentration Risk, Credit Risk, Policy [Policy Text Block] 2025 Finite-Lived Intangible Asset, Expected Amortization, Year One Advertising Costs Advertising Cost [Policy Text Block] Equity instruments other than options, grants in period (in shares) Granted (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Grants in Period Purchase of property and equipment Payments to Acquire Property, Plant, and Equipment Share-based compensation, shares outstanding increase, maximum amount (in percent) Share-Based Compensation Arrangement by Share-Based Payment Award, Percentage of Outstanding Stock Maximum Forgone Recovery due to Violation of Home Country Law, Amount Forgone Recovery due to Violation of Home Country Law, Amount Fair Value Debt Securities, Held-To-Maturity, Fair Value Commitments and contingencies (Note 11) Commitments and Contingencies Schedule of Effective Income Tax Rate Reconciliation Schedule of Effective Income Tax Rate Reconciliation [Table Text Block] Termination Date Trading Arrangement Termination Date Noncurrent assets and liabilities Increase (Decrease) in Other Noncurrent Assets and Liabilities, Net DESCRIPTION OF THE BUSINESS AND BASIS OF PRESENTATION Business Description and Basis of Presentation [Text Block] 2026 Lessee, Operating Lease, Liability, to be Paid, Year Two STOCK-BASED COMPENSATION Share-Based Payment Arrangement [Text Block] Entity Address, City or Town Entity Address, City or Town Schedule of Recognized Identified Assets Acquired and Liabilities Assumed Schedule of Recognized Identified Assets Acquired and Liabilities Assumed [Table Text Block] Employee Stock Purchase Plan Employee Stock Purchase Plan [Member] Employee Stock Purchase Plan Schedule of Share-based Payment Arrangement, Option, Activity Share-Based Payment Arrangement, Option, Activity [Table Text Block] Aggregate intrinsic value, exercised Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Exercises in Period, Intrinsic Value Compensation expense Share-Based Payment Arrangement, Expense Net income Net income Net income Net income attributable to Class A and Class B common stockholders Net Income (Loss) Attributable to Parent Trading Arrangement: Trading Arrangement [Axis] Granted (in usd per share) Share-Based Compensation Arrangements by Share-Based Payment Award, Options, Grants in Period, Weighted Average Exercise Price Pay vs Performance Disclosure, Table Pay vs Performance [Table Text Block] Defined contribution plan, employer discretionary contribution amount Defined Contribution Plan, Employer Discretionary Contribution Amount Forfeited (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Forfeited in Period Revenue from Contract with Customer, Liability [Roll Forward] Revenue from Contract with Customer, Liability [Roll Forward] Revenue from Contract with Customer, Liability Business Acquisition [Axis] Business Acquisition [Axis] Gross Unrealized Gains Debt Securities, Held-To-Maturity, Accumulated Unrecognized Gain Schedule of Intangible Assets Schedule of Finite-Lived Intangible Assets [Table Text Block] Equity Awards Adjustments, Excluding Value Reported in Compensation Table Equity Awards Adjustments, Excluding Value Reported in the Compensation Table [Member] Leased square footage Lessee, Operating Lease, Increase In Area Of Office Building Lessee, Operating Lease, Increase In Area Of Office Building Dividends or Other Earnings Paid on Equity Awards not Otherwise Reflected in Total Compensation for Covered Year Dividends or Other Earnings Paid on Equity Awards not Otherwise Reflected in Total Compensation for Covered Year [Member] Entity File Number Entity File Number Cash and Cash Equivalents [Axis] Cash and Cash Equivalents [Axis] REVENUE Revenue from Contract with Customer [Text Block] Document Fiscal Year Focus Document Fiscal Year Focus Income Statement [Abstract] Entity Address, Address Line One Entity Address, Address Line One Fair Value Assets, Fair Value Disclosure Name Forgone Recovery, Individual Name Aggregate intrinsic value, exercisable Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Exercisable, Intrinsic Value Remainder of 2024 Lessee, Operating Lease, Liability, to be Paid, Remainder of Fiscal Year Weighted-average remaining lease term Operating Lease, Weighted Average Remaining Lease Term Document Period End Date Document Period End Date New York, New York New York, New York [Member] New York, New York Investments Investment, Policy [Policy Text Block] Award Timing MNPI Considered Award Timing MNPI Considered [Flag] Total undiscounted lease payments Lessee, Operating Lease, Liability, to be Paid Beginning balance (in shares) Ending balance (in shares) Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Nonvested, Number Insider Trading Arrangements [Line Items] Acquisitions Business Combinations and Other Purchase of Business Transactions, Policy [Policy Text Block] Outstanding Aggregate Erroneous Compensation Amount Outstanding Aggregate Erroneous Compensation Amount Number of sources of revenue Number Of Sources Of Revenue Number Of Sources Of Revenue 2027 Lessee, Operating Lease, Liability, to be Paid, Year Three PEO Actually Paid Compensation Amount PEO Actually Paid Compensation Amount Effect of dilutive securities Dilutive Securities, Effect on Basic Earnings Per Share [Abstract] Interest income Interest Income, Operating Defined Contribution Plan, Matching Contribution [Axis] Defined Contribution Plan, Matching Contribution, Portion [Axis] Defined Contribution Plan, Matching Contribution, Portion Cost of revenues Cost of Revenue Amount from beginning balance recognized into revenue Contract with Customer, Liability, Revenue Recognized Adjustment to Compensation: Adjustment to Compensation [Axis] Prepaid expenses and other current assets Prepaid Expense and Other Assets, Current Accounts Receivable Accounts Receivable [Member] Document Transition Report Document Transition Report Document Quarterly Report Document Quarterly Report Number of months commencement of the sub-sublease Lessee, Operating Lease, Number Of Months Before Payment Is Due Lessee, Operating Lease, Number Of Months Before Payment Is Due Customer [Domain] Customer [Domain] Entity Current Reporting Status Entity Current Reporting Status Accumulated Deficit Retained Earnings [Member] Pension Adjustments Service Cost Pension Adjustments Service Cost [Member] Weighted-average shares in computing net income per share attributable to Class A and Class B common stockholders, basic (in shares) Weighted Average Number of Shares Outstanding, Basic Stock Price or TSR Estimation Method Stock Price or TSR Estimation Method [Text Block] Proceeds from sale of capitalized software Proceeds from Sale of Productive Assets Document Information [Table] Document Information [Table] Restricted Stock Units (RSUs) RSUs outstanding Restricted Stock Units (RSUs) [Member] Increase (Decrease) in Stockholders' Deficit [Roll Forward] Increase (Decrease) in Stockholders' Equity [Roll Forward] Executive Category: Executive Category [Axis] Purchases of investments Payments to Acquire Investments Name Awards Close in Time to MNPI Disclosures, Individual Name Number of businesses acquired Number of Businesses Acquired Entity File Category Entity File Category Income Statement Location [Domain] Statement of Income Location, Balance [Domain] Company Selected Measure Name Company Selected Measure Name Founders Founders [Member] Founders EX-101.PRE 9 duol-20240930\_pre.xml XBRL TAXONOMY EXTENSION PRESENTATION LINKBASE DOCUMENT XML 11 R1.htm IDEA: XBRL DOCUMENT v3.24.3 Cover Page - shares 9 Months Ended Sep. 30, 2024 Nov. 05, 2024 Document Information [Line Items] A Document Type 10-Q A Document Quarterly Report true A Document Period End Date Sep. 30, 2024 A Document Transition Report false A Entity File Number 001-40653 A Entity Registrant Name Duolingo, Inc. A Entity Incorporation, State or Country Code DE A Entity Zip Identification Number 45-3055872 A Entity Address, Address Line One 5900 Penn Avenue A Entity Address, City or Town Pittsburgh A Entity Address, State or Province PA A Entity Address, Postal Zip Code 15206 A City Area Code (412) A Local Phone Number 567-6602 A Title of 12(b) Security Class A common stock, \$0.0001 par share A Trading Symbol DUOL A Security Exchange Name NASDAQ A Entity Current Reporting Status Yes A Entity Interactive Data Current Yes A Entity File Category Large Accelerated Filer A Entity Small Business false A Entity Emerging Growth Company false A Entity Shell Company false A Entity Central Index Key 0001562088 A Current Fiscal Year End Date -12-31 A Document Fiscal Year Focus 2024 A Document Fiscal

Period Focus Q3 A Amendment Flag false A Common Class A A Document Information [Line Items] A Entity Common Stock, Shares Outstanding A 37,897,481 Common Class B A A Document Information [Line Items] A Entity Common Stock, Shares Outstanding A 6,087,077 X - DefinitionBoolean flag that is true when the XBRL content amends previously-filed or accepted submission. + ReferencesNo definition available. + Details Name: dei AmendmentFlag Namespace Prefix: dei Data Type: xbrli:booleanItemType Balance Type: na Period Type: duration X - DefinitionArea code of city + ReferencesNo definition available. + Details Name: dei CityAreaCode Namespace Prefix: dei Data Type: xbrli:normalizedStringItemType Balance Type: na Period Type: duration X - DefinitionEnd date of current fiscal year in the format --MM-DD. + ReferencesNo definition available. + Details Name: dei CurrentFiscalYearEndDate Namespace Prefix: dei Data Type: xbrli:gMonthDayItemType Balance Type: na Period Type: duration X - DefinitionFiscal period values are FY, Q1, Q2, and Q3. 1st, 2nd and 3rd quarter 10-Q or 10-QT statements have value Q1, Q2, and Q3 respectively, with 10-K, 10-KT or other fiscal year statements having FY. + ReferencesNo definition available. + Details Name: dei DocumentFiscalPeriodFocus Namespace Prefix: dei Data Type: dei:fiscalPeriodItemType Balance Type: na Period Type: duration X - DefinitionThis is focus fiscal year of the document report in YYYY format. For a 2006 annual report, which may also provide financial information from prior periods, fiscal 2006 should be given as the fiscal year focus. Example: 2006. + ReferencesNo definition available. + Details Name: dei DocumentFiscalYearFocus Namespace Prefix: dei Data Type: xbrli:gYearItemType Balance Type: na Period Type: duration X - DefinitionLine items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. + ReferencesNo definition available. + Details Name: dei DocumentInformationLineItems Namespace Prefix: dei Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionFor the EDGAR submission types of Form 8-K: the date of the report, the date of the earliest event reported; for the EDGAR submission types of Form N-1A: the filing date; for all other submission types: the end of the reporting or transition period. The format of the date is YYYY-MM-DD. + ReferencesNo definition available. + Details Name: dei DocumentPeriodEndDate Namespace Prefix: dei Data Type: xbrli:dateItemType Balance Type: na Period Type: duration X - DefinitionBoolean flag that is true only for a form used as a quarterly report. + ReferencesReference 1:

[http://www.xbrl.org/2003/role/disclosureRef-Topic 210-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph \(SX 210.5-02\(18\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 210-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph (SX 210.5-02(18))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 17>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph \(SX 210.13-01\(a\)\(4\)\(i\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph (SX 210.13-01(a)(4)(i))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 18>: [http://www.xbrl.org/2009/role/commonPracticeRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph \(SX 210.13-01\(a\)\(4\)\(ii\)\)](http://www.xbrl.org/2009/role/commonPracticeRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph (SX 210.13-01(a)(4)(ii))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 19>: [http://www.xbrl.org/2009/role/commonPracticeRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph \(SX 210.13-01\(a\)\(4\)\(iii\)\)](http://www.xbrl.org/2009/role/commonPracticeRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph (SX 210.13-01(a)(4)(iii))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 20>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph \(SX 210.13-01\(a\)\(4\)\(iii\)\(A\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph (SX 210.13-01(a)(4)(iii)(A))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 21>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph \(SX 210.13-01\(a\)\(4\)\(iv\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph (SX 210.13-01(a)(4)(iv))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 22>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph \(SX 210.13-01\(a\)\(5\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph (SX 210.13-01(a)(5))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 23>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph \(SX 210.13-02\(a\)\(4\)\(i\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph (SX 210.13-02(a)(4)(i))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 24>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph \(SX 210.13-02\(a\)\(4\)\(iii\)\(A\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph (SX 210.13-02(a)(4)(iii)(A))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 25>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph \(SX 210.13-02\(a\)\(4\)\(iii\)\(B\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph (SX 210.13-02(a)(4)(iii)(B))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 26>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph \(SX 210.13-02\(a\)\(4\)\(iv\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph (SX 210.13-02(a)(4)(iv))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 27>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph \(SX 210.13-02\(a\)\(5\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph (SX 210.13-02(a)(5))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 28>: [http://www.xbrl.org/2009/role/commonPracticeRef-Topic 852-SubTopic 10-Name Accounting Standards Codification-Section 50-Paragraph 7-Subparagraph \(a\)-Publisher FASB -URI](http://www.xbrl.org/2009/role/commonPracticeRef-Topic 852-SubTopic 10-Name Accounting Standards Codification-Section 50-Paragraph 7-Subparagraph (a)-Publisher FASB -URI) <https://asc.fasb.org/1943274/2147481404/852-10-50-7Reference 29>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 280-SubTopic 10-Name Accounting Standards Codification-Section 50-Paragraph 30-Subparagraph \(c\)-Publisher FASB -URI](http://www.xbrl.org/2003/role/disclosureRef-Topic 280-SubTopic 10-Name Accounting Standards Codification-Section 50-Paragraph 30-Subparagraph (c)-Publisher FASB -URI) <https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 30>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 942-SubTopic 210-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph \(SX 210.9-03\(11\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 942-SubTopic 210-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph (SX 210.9-03(11))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147478546/942-210-S99-1+Details Name: us-gaap Assets Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of asset recognized for present right to economic benefit, classified as current. + ReferencesReference 1>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 810-SubTopic 10-Name Accounting Standards Codification-Section 50-Paragraph 3-Subparagraph \(bb\)-Publisher FASB -URI](http://www.xbrl.org/2003/role/disclosureRef-Topic 810-SubTopic 10-Name Accounting Standards Codification-Section 50-Paragraph 3-Subparagraph (bb)-Publisher FASB -URI) <https://asc.fasb.org/1943274/2147481203/810-10-50-3Reference 2>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 810-SubTopic 10-Name Accounting Standards Codification-Section 45-Paragraph 25-Subparagraph \(a\)-Publisher FASB -URI](http://www.xbrl.org/2003/role/disclosureRef-Topic 810-SubTopic 10-Name Accounting Standards Codification-Section 45-Paragraph 25-Subparagraph (a)-Publisher FASB -URI) <https://asc.fasb.org/1943274/2147481231/810-10-45-25Reference 3>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 235-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph \(SX 210.4-08\(g\)\(1\)\(iii\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 235-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph (SX 210.4-08(g)(1)(iii))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 4>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 323-SubTopic 10-Name Accounting Standards Codification-Section 50-Paragraph 3-Subparagraph \(c\)-Publisher FASB -URI](http://www.xbrl.org/2003/role/disclosureRef-Topic 323-SubTopic 10-Name Accounting Standards Codification-Section 50-Paragraph 3-Subparagraph (c)-Publisher FASB -URI) <https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 5>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 825-SubTopic 10-Name Accounting Standards Codification-Section 50-Paragraph 28-Subparagraph \(f\)-Publisher FASB -URI](http://www.xbrl.org/2003/role/disclosureRef-Topic 825-SubTopic 10-Name Accounting Standards Codification-Section 50-Paragraph 28-Subparagraph (f)-Publisher FASB -URI) <https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 6>: <http://www.xbrl.org/2003/role/exampleRef-Topic 852-SubTopic 10-Name Accounting Standards Codification-Section 55-Paragraph 10-Publisher FASB -URI> <https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 7>: <http://www.xbrl.org/2003/role/disclosureRef-Topic 210-SubTopic 10-Name Accounting Standards Codification-Section 45-Paragraph 1-Publisher FASB -URI> <https://asc.fasb.org/1943274/2147483467/210-10-45-1Reference 8>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 210-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph \(SX 210.13-01\(a\)\(4\)\(i\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 210-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph (SX 210.13-01(a)(4)(i))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 9>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph \(SX 210.13-01\(a\)\(4\)\(ii\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph (SX 210.13-01(a)(4)(ii))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 10>: [http://www.xbrl.org/2009/role/commonPracticeRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph \(SX 210.13-01\(a\)\(4\)\(iii\)\)](http://www.xbrl.org/2009/role/commonPracticeRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph (SX 210.13-01(a)(4)(iii))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 11>: [http://www.xbrl.org/2009/role/commonPracticeRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph \(SX 210.13-01\(a\)\(4\)\(iii\)\)](http://www.xbrl.org/2009/role/commonPracticeRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph (SX 210.13-01(a)(4)(iii))) -Publisher FASB -URI 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[http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph \(SX 210.13-01\(a\)\(4\)\(iv\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1A-Subparagraph (SX 210.13-01(a)(4)(iv))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 15>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph \(SX 210.13-02\(a\)\(4\)\(i\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph (SX 210.13-02(a)(4)(i))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 16>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph \(SX 210.13-02\(a\)\(4\)\(iii\)\(A\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph (SX 210.13-02(a)(4)(iii)(A))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 17>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph \(SX 210.13-02\(a\)\(4\)\(iii\)\(B\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph (SX 210.13-02(a)(4)(iii)(B))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 18>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph \(SX 210.13-02\(a\)\(4\)\(iv\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph (SX 210.13-02(a)(4)(iv))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 19>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph \(SX 210.13-02\(a\)\(5\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 470-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1B-Subparagraph (SX 210.13-02(a)(5))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1Reference 20>: [http://www.xbrl.org/2009/role/commonPracticeRef-Topic 852-SubTopic 10-Name Accounting Standards Codification-Section 50-Paragraph 7-Subparagraph \(a\)-Publisher FASB -URI](http://www.xbrl.org/2009/role/commonPracticeRef-Topic 852-SubTopic 10-Name Accounting Standards Codification-Section 50-Paragraph 7-Subparagraph (a)-Publisher FASB -URI) <https://asc.fasb.org/1943274/2147481404/852-10-50-7+Details Name: us-gaap AssetsCurrent Namespace Prefix: us-gaap Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount, after accumulated amortization and accumulated impairment loss, of asset recognized from cost incurred to obtain or fulfill contract with customer; classified as current. + ReferencesReference 1>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 340-SubTopic 40-Name Accounting Standards Codification-Section 50-Paragraph 3-Subparagraph \(a\)-Publisher FASB -URI](http://www.xbrl.org/2003/role/disclosureRef-Topic 340-SubTopic 40-Name Accounting Standards Codification-Section 50-Paragraph 3-Subparagraph (a)-Publisher FASB -URI) <https://asc.fasb.org/1943274/2147479483/340-40-50-3+Details Name: us-gaap CapitalizedContractCostNetCurrent Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of currency on hand as well as demand deposits with banks or financial institutions. Includes other kinds of accounts that have the general characteristics of demand deposits. Also includes short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. Excludes cash and cash equivalents within disposal group and discontinued operation. + ReferencesReference 1>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 210-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph \(SX 210.5-02\(1\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 210-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph (SX 210.5-02(1))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2>: [http://www.xbrl.org/2003/role/exampleRef-Topic 45-Paragraph 1-Subparagraph \(a\)-Publisher FASB -URI](http://www.xbrl.org/2003/role/exampleRef-Topic 45-Paragraph 1-Subparagraph (a)-Publisher FASB -URI) <https://asc.fasb.org/1943274/2147483467/210-10-45-1Reference 3>: <http://www.xbrl.org/us-gaap/role/ref/legacyRef-Name Accounting Standards Codification-Topic 230-SubTopic 10-Section 45-Paragraph 4-Publisher FASB -URI> [https://asc.fasb.org/1943274/2147482740/230-10-45-4+Details Name: us-gaap CashAndCashEquivalentsAtCarryingValue Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionRepresents the caption on the face of the balance sheet to indicate that the entity has entered into \(1\) purchase or supply arrangements that will require expending a portion of its resources to meet the terms thereof, and \(2\) is exposed to potential losses or, less frequently, gains, arising from \(a\) possible claims against a company's resources due to future performance under contract terms, and \(b\) possible losses or likely gains from uncertainties that will ultimately be resolved when one or more future events that are deemed likely to occur do occur or fail to occur. + ReferencesReference 1](https://asc.fasb.org/1943274/2147482740/230-10-45-4+Details Name: us-gaap CashAndCashEquivalentsAtCarryingValue Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionRepresents the caption on the face of the balance sheet to indicate that the entity has entered into (1) purchase or supply arrangements that will require expending a portion of its resources to meet the terms thereof, and (2) is exposed to potential losses or, less frequently, gains, arising from (a) possible claims against a company's resources due to future performance under contract terms, and (b) possible losses or likely gains from uncertainties that will ultimately be resolved when one or more future events that are deemed likely to occur do occur or fail to occur. + ReferencesReference 1): [http://www.xbrl.org/us-gaap/role/ref/legacyRef-Topic 942-SubTopic 210-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph \(SX 210.9-03\(17\)\)](http://www.xbrl.org/us-gaap/role/ref/legacyRef-Topic 942-SubTopic 210-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph (SX 210.9-03(17))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147478546/942-210-S99-1Reference 2>: [http://www.xbrl.org/us-gaap/role/ref/legacyRef-Topic 210-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph \(SX 210.5-02\(25\)\)](http://www.xbrl.org/us-gaap/role/ref/legacyRef-Topic 210-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph (SX 210.5-02(25))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 944-SubTopic 210-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph \(SX 210.7-03\(a\)\(19\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 944-SubTopic 210-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph (SX 210.7-03(a)(19))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 4>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 946-SubTopic 210-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph \(SX 210.6-04\(15\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 946-SubTopic 210-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph (SX 210.6-04(15))) -Publisher FASB -URI [https://asc.fasb.org/1943274/2147479170/946-210-S99-1+Details Name: us-gaap CommitmentsAndContingencies Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAggregate par or stated value of issued nonredeemable common stock \(or common stock redeemable solely at the option of the issuer\). This item includes treasury stock repurchased by the entity. Note: elements for number of nonredeemable common shares, par value and other disclosure concepts are in another section within stockholders' equity. + ReferencesReference 1](https://asc.fasb.org/1943274/2147479170/946-210-S99-1+Details Name: us-gaap CommitmentsAndContingencies Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAggregate par or stated value of issued nonredeemable common stock (or common stock redeemable solely at the option of the issuer). This item includes treasury stock repurchased by the entity. Note: elements for number of nonredeemable common shares, par value and other disclosure concepts are in another section within stockholders' equity. + ReferencesReference 1): [http://www.xbrl.org/us-gaap/role/ref/legacyRef-Topic 210-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph \(SX 210.5-02\(29\)\)](http://www.xbrl.org/us-gaap/role/ref/legacyRef-Topic 210-SubTopic 10-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph (SX 210.5-02(29))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2>: <http://www.xbrl.org/2003/role/exampleRef-Topic 852-SubTopic 10-Name Accounting Standards Codification-Section 55-Paragraph 10-Publisher FASB -URI> <https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 3>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 944-SubTopic 210-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph \(SX 210.7-03\(a\)\(22\)\)](http://www.xbrl.org/2003/role/disclosureRef-Topic 944-SubTopic 210-Name Accounting Standards Codification-Section S99-Paragraph 1-Subparagraph (SX 210.7-03(a)(22))) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147478777/944-210-S99-1+Details Name: us-gaap CommonStockValue Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of obligation to transfer good or service to customer for which consideration has been received or is receivable, classified as current. + ReferencesReference 1>: <http://www.xbrl.org/2003/role/disclosureRef-Topic 606-SubTopic 10-Name Accounting Standards Codification-Section 45-Paragraph 1-Publisher FASB -URI> <https://asc.fasb.org/1943274/2147479837/606-10-45-1Reference 2>: [http://www.xbrl.org/2003/role/disclosureRef-Topic 606-SubTopic 10-Name Accounting Standards Codification-Section 50-Paragraph 8-Subparagraph \(a\)-Publisher FASB -URI](http://www.xbrl.org/2003/role/disclosureRef-Topic 606-SubTopic 10-Name Accounting Standards Codification-Section 50-Paragraph 8-Subparagraph (a)-Publisher FASB -URI) <https://asc.fasb.org/1943274/2147479806/606-10-50-8Reference 3>: <http://www.xbrl.org/2003/role/disclosureRef-Topic 606-SubTopic 10-Name Accounting Standards Codification-Section 45-Paragraph 2-Publisher FASB -URI> [https://asc.fasb.org/1943274/2147479837/606-10-45-2+Details Name: us-gaap ContractWithCustomer](https://asc.fasb.org/1943274/2147479837/606-10-45-2+Details Name: us-gaap ContractWithCustomerLiabilityCurrent Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount, after allowance for credit loss, of investment in debt security measured at amortized cost (held-to-maturity), classified as current. + ReferencesReference 1)







Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(h)) -SubTopic 10 -Topic 235 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1 + Details Name: us-gaap IncomeTaxExpenseBenefit Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount of operating interest income, including, but not limited to, amortization and accretion of premiums and discounts on securities. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(1)(e)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 3: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 320 -Name Accounting Standards Codification -Section S99 -Paragraph 6 -Subparagraph (SX 210.12-14(Column E)(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477271/946-320-S99-6Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 320 -Name Accounting Standards Codification -Section S99 -Paragraph 6 -Subparagraph (SX 210.12-14(Column E)(Footnote 4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477271/946-320-S99-6Reference 6: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-10Reference 7: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 45 -Paragraph 39 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477346/946-830-45-39Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-07(1)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-1Reference 9: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 320 -Name Accounting Standards Codification -Section S99 -Paragraph 6 -Subparagraph (SX 210.12-14(Column E)(Footnote 6)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477271/946-320-S99-6 + Details Name: us-gaap InterestIncomeOperating Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe portion of profit or loss for the period, net of income taxes, which is attributable to the parent. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-6Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 9 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-9Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 60 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147476176/805-60-65-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 323 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478666/740-323-65-2Reference 5: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482765/220-10-50-6Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-3Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (b)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-1Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-8Reference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-4Reference 17: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-10Reference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section 45 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479105/946-220-45-7Reference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(18)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-07(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-1Reference 21: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(1)(d)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 22: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 23: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 24: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 25: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 26: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 27: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 28: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 29: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 30: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 31: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 32: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 60B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-60BReference 33: http://www.xbrl.org/2003/role/disclosureRef -Topic 205 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483499/205-20-50-7Reference 34: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 35: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1AReference 36: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1BReference 37: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(22)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1 + Details Name: us-gaap NetIncomeLoss Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe aggregate amount of income or expense from ancillary business-related activities (that is to say, excluding major activities considered part of the normal operations of the business). + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(7)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2 + Details Name: us-gaap NonoperatingIncomeExpense Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionGenerally recurring costs associated with normal operations except for the portion of these expenses which can be clearly related to production and included in cost of sales or services. Includes selling, general and administrative expense. + ReferencesNo definition available. + Details Name: us-gaap OperatingExpenses Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap OperatingExpensesAbstract Namespace Prefix: us-gaap Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionThe net result for the period of deducting operating expenses from operating revenues. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-32Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 5: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 6: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 7: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 31 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-31 + Details Name: us-gaap OperatingIncomeLoss Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount of expense for research and development. Includes, but is not limited to, cost for computer software product to be sold, leased, or otherwise marketed and writeoff of research and development assets acquired in transaction other than business combination or joint venture formation or both. Excludes write-down of intangible asset acquired in business combination or from joint venture formation or both, used in research and development activity. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 985 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481283/985-20-50-2Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 730 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482916/730-10-50-1Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 912 -SubTopic 730 -Name Accounting Standards Codification -Section 25 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479532/912-730-25-1 + Details Name: us-gaap ResearchAndDevelopmentExpense Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount, excluding tax collected from customer, of revenue from satisfaction of performance obligation by transferring promised good or service to customer. Tax collected from customer is tax assessed by governmental authority that is both imposed on and concurrent with specific revenue-producing transaction, including, but not limited to, sales, use, value added and excise. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 41 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-41Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 4: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 5: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 924 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 11.L) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479941/924-10-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-5Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 42 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-42Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 40 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-40Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-4 + Details Name: us-gaap RevenueFromContractWithCustomerExcludingAssessedTax Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe aggregate total amount of expenses directly related to the marketing or selling of products or services. + ReferencesNo definition available. + Details Name: us-gaap SellingAndMarketingExpense Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration XML 15 R5.htm IDEA: XBRL DOCUMENT v3.24.3 UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY - USD (\$) shares in Thousands, \$ in Thousands Total Common Stock Additional Paid-In Capital Accumulated Deficit Beginning balance (in shares) at Dec. 31, 2022 \$ 40,361 \$ 4 Beginning balance at Dec. 31, 2022 \$ 542,078 \$ 4 \$ 772,562 \$ (230,488) Increase (Decrease) in Stockholders'

Deficit [Roll Forward] À À À Stock-based compensation expense 70,219 À 70,219 À Release of performance stock units (in shares) À 180 À À Taxes paid related to net-share settlement of share-based compensation awards (in shares) À (84) À À Taxes paid to net-share settlement of share-based compensation awards (11,482) À (11,482) À Stock options exercised (in shares) À 1,068 À À Stock options exercised 10,054 À 10,054 À Release of restricted stock units (in shares) À 447 À À Net income 3,950 À À 3,950 Ending balance (in shares) at Sep. 30, 2023 41,972 À À Ending balance at Sep. 30, 2023 614,819 \$ 4 841,353 (226,538) Beginning balance (in shares) at Jun. 30, 2023 41,531 À À Beginning balance at Jun. 30, 2023 596,405 \$ 4 825,746 (229,345) Increase (Decrease) in Stockholders' Deficit [Roll Forward] À À À Stock-based compensation expense 25,432 À 25,432 À Release of performance stock units (in shares) À 180 À À Taxes paid related to net-share settlement of share-based compensation awards (in shares) À (84) À À Taxes paid related to net-share settlement of share-based compensation awards (11,482) À (11,482) À Stock options exercised (in shares) À 152 À À Stock options exercised 1,657 À 1,657 À Release of restricted stock units (in shares) À 193 À À Net income 2,807 À À 2,807 Ending balance (in shares) at Sep. 30, 2023 41,972 À À Ending balance at Sep. 30, 2023 614,819 \$ 4 841,353 (226,538) Beginning balance (in shares) at Dec. 31, 2023 4,526 À À Beginning balance at Dec. 31, 2023 655,501 \$ 4 869,918 (214,421) Increase (Decrease) in Stockholders' Deficit [Roll Forward] À À À Stock-based compensation expense 80,690 À 80,690 À Stock options exercised (in shares) 802 802 À À Stock options exercised 511,595 À 511,595 À Release of restricted stock units (in shares) À 616 À À Net income 74,667 À À 74,667 Ending balance (in shares) at Sep. 30, 2024 43,944 À À Ending balance at Sep. 30, 2024 822,453 \$ 4 962,203 (139,754) Beginning balance (in shares) at Jun. 30, 2024 43,500 À À Beginning balance at Jun. 30, 2024 766,944 \$ 4 930,054 (163,114) Increase (Decrease) in Stockholders' Deficit [Roll Forward] À À À Stock-based compensation expense 28,959 À 28,959 À Stock options exercised (in shares) À 222 À À Stock options exercised 3,190 À 3,190 À Release of restricted stock units (in shares) À 222 À À Net income 23,360 À À 23,360 Ending balance (in shares) at Sep. 30, 2024 43,944 À À Ending balance at Sep. 30, 2024 \$ 822,453 \$ 4 962,203 (\$ 139,754) X - DefinitionAmount of decrease to equity for grantee's tax withholding obligation for award under share-based payment arrangement. + ReferencesNo definition available. + Details Name: us-gaap AdjustmentsRelatedToTaxWithholdingForShareBasedCompensation Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount of increase to additional paid-in capital (APIC) for recognition of cost for award under share-based payment arrangement. + ReferencesReference 1:

gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(30)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(31)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481732/852-10-55-10Reference 5: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-12Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(19)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.6-05(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-2Reference 8: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(4)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(7)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 11: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 12: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 13: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 14: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 310 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SAB Topic 4.E) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480418/310-10-S99-2 + Details Name: us-gaap StockholdersEquity Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: instant XML 16 R6.htm IDEA: XBRL DOCUMENT v3.24.3 UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS - USD (\$) in Thousands 9 Months Ended Sep. 30, 2024 Sep. 30, 2023 Cash flows from operating activities: A A Net income is \$ 74,667 \$ 3,950 Adjustments to reconcile net income to net cash provided by operating activities: A A Depreciation and amortization 7,193 5,053 Stock-based compensation expense 80,690 70,219 Accretion on marketable securities, net (12) 0 Gain on sale of capitalized software 0 (100) Loss on disposal of leasehold improvements 0 417 Changes in assets and liabilities: A A Deferred revenue 61,411 51,338 Accounts receivable (5,209) (14,983) Deferred cost of revenues (13,398) (11,083) Prepaid expenses and other current assets (8,842) (2,299) Accounts payable 522 1,403 Accrued expenses and other current liabilities 1,351 185 Noncurrent assets and liabilities 3,796 321 Net cash provided by operating activities 202,169 104,421 Cash flows from investing activities: A A Purchases of investments (81,670) 0 Capitalized software expense and purchases of intangible assets (8,545) (7,269) Purchase of property and equipment (10,155) (2,267) Proceeds from sale of capitalized software 0 100 Acquisition of companies, net of \$5 cash acquired (6,595) 0 Net cash used for investing activities (106,965) (9,436) Cash flows from financing activities: A A Proceeds from exercise of stock options 11,595 10,054 Taxes paid related to net-share settlement of share-based compensation awards 0 (11,482) Net cash provided by (used for) financing activities 11,595 (1,428) Net increase in cash, cash equivalents and restricted cash 106,799 93,557 Cash, cash equivalents and restricted cash - Beginning of period 750,345 608,180 Cash, cash equivalents and restricted cash - End of period 857,144 701,737 Supplemental disclosure of cash flow information: A A Cash paid for income taxes 6,797 2,195 Supplemental disclosure of noncash investing activities: A A Property and equipment included in Current liabilities 1,094 242 Right of use assets obtained in exchange for new operating lease liabilities 33,039 0 Right of use assets disposed or adjusted modifying operating lease liabilities \$ 1,303 \$ 0 X - Definition: Increase (Decrease) In Capitalized Contract Costs, Net + References: No definition available. + Details Name: duol IncreaseDecreaseInCapitalizedContractCostsNet Namespace Prefix: duol Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: duration X - Definition: Payments For Software And Purchases Of Intangible Assets + References: No definition available. + Details Name: duol PaymentsForSoftwareAndPurchasesOfIntangibleAssets Namespace Prefix: duol Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: duration X - Definition: Right of Use Asset , Decrease From Modifications, Operating Lease Liabilities + References: No definition available. + Details Name: duol RightOfUseAssetDecreaseFromModificationsOperatingLeaseLiabilities Namespace Prefix: duol Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: duration X - Definition: The sum of the periodic adjustments of the differences between securities' face values and purchase prices that are charged against earnings. This is called accretion if the security was purchased at a discount and amortization if it was purchased at premium. As a noncash item, this element is an adjustment to net income when calculating cash provided by or used in operations using the indirect method. + References: Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28 + Details Name: us-gaap AccretionAmortizationOfDiscountsAndPremiumsInvestments Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: duration X - References: No definition available. + Details Name: us-gaap AdjustmentsToReconcileNetIncomeLossToCashProvidedByUsedInOperatingActivitiesAbstract Namespace Prefix: us-gaap Data Type: xbrli:stringItem Type Balance Type: na Period Type: duration X - Definition: Future cash outflow to pay for purchases of fixed assets that have occurred. + References: Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-4Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-3Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -SubTopic 10 -Section 50 -Paragraph 5 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-5 + Details Name: us-gaap CapitalExpendituresIncurredButNotYetPaid Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: duration X - Definition: Amount of cash and cash equivalents, and cash and cash equivalents restricted to withdrawal or usage. Excludes amount for disposal group and discontinued operations. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. + References: Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-8Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 24 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-24Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 1 -SubTopic 230 -Topic 830 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477401/830-230-45-1 + Details Name: us-gaap CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalents Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type Balance Type: debit Period Type: instant X - Definition: Amount of increase (decrease) in cash, cash equivalents, and cash and cash equivalents restricted to withdrawal or usage; including effect from exchange rate change. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. + References: Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 24 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-24Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 1 -SubTopic 230 -Topic 830 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477401/830-230-45-1 + Details Name: us-gaap CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type Balance Type: debit Period Type: duration X - References: No definition available. + Details Name: us-gaap CashFlowNoncashInvestingAndFinancingActivitiesDisclosureAbstract Namespace Prefix: us-gaap Data Type: xbrli:stringItem Type Balance Type: na Period Type: duration X - Definition: The aggregate expense recognized in the current period that allocates the cost of tangible assets, intangible assets, or depleting assets to periods that benefit from use of the assets. + References: Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (b) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 3: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 49 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-49Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (e) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22 + Details Name: us-gaap DepreciationDepletionAndAmortization Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type Balance Type: debit Period Type: duration X - Definition: Amount of gain (loss) on sale or disposal of intangible assets. + References: Reference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28 + Details Name: us-gaap GainLossOnDispositionOfIntangibleAssets Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: duration X - Definition: Amount of gain (loss) on sale or disposal of property, plant and equipment assets, including oil and gas property and timber property. + References: Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (b) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28 + Details Name: us-gaap GainLossOnSaleOfPropertyPlantEquipment Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: duration X - Definition: The increase (decrease) during the reporting period in the aggregate amount of liabilities incurred (and for which invoices have typically been received) and payable to vendors for goods and services received that are used in an entity's business. + References: Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28 + Details Name: us-gaap IncreaseDecreaseInAccountsPayable Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type Balance Type: debit Period Type: duration X - Definition: The increase (decrease) during the reporting period in amount due within one year (or one business cycle) from customers for the credit sale of goods and services. + References: Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28 + Details Name: us-gaap IncreaseDecreaseInAccountsReceivable Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: duration X - Definition: The increase (decrease) during the reporting period in the aggregate amount of expenses incurred but not yet paid. + References: Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28 + Details Name: us-gaap IncreaseDecreaseInAccruedLiabilities Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type Balance Type: debit Period Type: duration X - Definition: Amount of increase (decrease) in obligation to transfer good or service to customer for which consideration has been received or is receivable. + References: Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 912 -SubTopic 310 -Name Accounting Standards Codification -Section 45 -Paragraph 11 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478345/912-310-45-11Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28 + Details Name: us-gaap IncreaseDecreaseInContractWithCustomerLiability Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type Balance Type: debit Period Type: duration X - References: No definition available. + Details Name: us-gaap IncreaseDecreaseInOperatingCapitalAbstract Namespace Prefix: us-gaap Data Type: xbrli:stringItem Type Balance Type: na Period Type: duration X - Definition: Amount of increase (decrease) in noncurrent operating assets after deduction of noncurrent operating liabilities classified as other. + References: No definition available. + Details Name: us-gaap IncreaseDecreaseInOtherNoncurrentAssetsAndLiabilitiesNet Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: duration X - Definition: Amount of increase (decrease) in prepaid expenses, and assets classified as other. + References: Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28 + Details Name: us-gaap IncreaseDecreaseInPrepaidDeferredExpenseAndOtherAssets Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: duration X - Definition: Amount of cash inflow (outflow) from financing activities, including discontinued operations. Financing activity cash flows include obtaining resources from owners and providing them with a return on, and a return of, their investment; borrowing money and repaying amounts borrowed, or settling the obligation; and obtaining and paying for other resources obtained from creditors on long-term credit. + References: Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 24 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-24 + Details Name: us-gaap NetCashProvidedByUsedInFinancingActivities Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type Balance Type: debit Period Type: duration X - References: No definition available. + Details Name: us-gaap NetCashProvidedByUsedInFinancingActivitiesAbstract Namespace Prefix: us-gaap Data Type: xbrli:stringItem Type Balance Type: na Period Type: duration X - Definition: Amount of cash inflow (outflow) from investing activities, including discontinued operations. Investing activity cash flows include making and collecting loans and acquiring and disposing of debt or equity instruments and property, plant, and equipment and other productive assets. + References: Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 24 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-24 + Details Name: us-gaap NetCashProvidedByUsedInInvestingActivities Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type Balance Type: debit Period Type: duration X - References: No definition available. + Details Name: us-gaap NetCashProvidedByUsedInInvestingActivitiesAbstract Namespace Prefix: us-gaap Data Type: xbrli:stringItem Type Balance Type: na Period Type: duration X - Definition: Amount of cash inflow (outflow) from operating activities, including discontinued operations. Operating activity cash flows include transactions, adjustments, and changes in value

not defined as investing or financing activities. + ReferencesReference 1: <http://fasb.org/us-gaap/role/ref/legacyRef> -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Publisher FASB -URI <https://asc.fasb.org/1943274/2147482740/230-10-45-28>Reference 2: <http://fasb.org/us-gaap/role/ref/legacyRef> -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 24 -Publisher FASB -URI <https://asc.fasb.org/1943274/2147482740/230-10-45-24>Reference 3: <http://fasb.org/us-gaap/role/ref/legacyRef> -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 25 -Publisher FASB -URI <https://asc.fasb.org/1943274/2147482740/230-10-45-25> + Details Name: us-gaap\_NetCashProvidedByUsedInOperatingActivities Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: na Period Type: duration X -ReferencesNo definition available. + Details Name: us-gaap\_NetCashProvidedByUsedInOperatingActivitiesAbstract Namespace Prefix: us-gaap\_Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionThe portion of profit or loss for the period, net of income taxes, which is attributable to the parent. + ReferencesReference 1: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI <https://asc.fasb.org/1943274/2147483443/250-10-50-6>Reference 2: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 9 -Publisher FASB -URI <https://asc.fasb.org/1943274/2147483443/250-10-50-9>Reference 3: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 805 -SubTopic 60 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (g) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147476176/805-60-65-1>Reference 4: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 740 -SubTopic 323 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(3) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147478666/740-323-65-2>Reference 5: <http://fasb.org/us-gaap/role/ref/legacyRef> -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(20)) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147483621/220-10-S99-2>Reference 6: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480678/235-10-S99-1>Reference 7: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147481687/323-10-50-3>Reference 8: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147482907/825-10-50-28>Reference 9: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI <https://asc.fasb.org/1943274/2147482765/220-10-50-6>Reference 10: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI <https://asc.fasb.org/1943274/2147483443/250-10-50-3>Reference 11: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (b)(2) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147483443/250-10-50-1>Reference 12: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (f) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480175/815-40-65-1>Reference 13: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI <https://asc.fasb.org/1943274/2147483443/250-10-50-8>Reference 14: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (a) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147483443/250-10-50-11>Reference 15: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (b) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147483443/250-10-50-11>Reference 16: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI <https://asc.fasb.org/1943274/2147483443/250-10-50-4>Reference 17: <http://www.xbrl.org/2003/role/exampleRef> -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI <https://asc.fasb.org/1943274/2147479168/946-830-55-10>Reference 18: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section 45 -Paragraph 7 -Publisher FASB -URI <https://asc.fasb.org/1943274/2147479105/946-220-45-7>Reference 19: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(18)) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147477250/944-220-S99-1>Reference 20: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-07(9)) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147479134/946-220-S99-1>Reference 21: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(1)(d)) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147479134/946-220-S99-3>Reference 22: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1A>Reference 23: <http://www.xbrl.org/2009/role/commonPracticeRef> -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1A>Reference 24: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1A>Reference 25: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1A>Reference 26: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1A>Reference 27: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1B>Reference 28: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1B>Reference 29: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1B>Reference 30: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1B>Reference 31: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480097/470-10-S99-1B>Reference 32: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 60B -Subparagraph (a) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147482689/260-10-45-60B>Reference 33: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 205 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Publisher FASB -URI <https://asc.fasb.org/1943274/2147483499/205-20-50-7>Reference 34: <http://fasb.org/us-gaap/role/ref/legacyRef> -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Publisher FASB -URI <https://asc.fasb.org/1943274/2147482740/230-10-45-28>Reference 35: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1A -Subparagraph (a) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147482790/220-10-45-1A>Reference 36: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1B -Subparagraph (a) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147482790/220-10-45-1B>Reference 37: <http://fasb.org/us-gaap/role/ref/legacyRef> -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(22)) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147478524/942-220-S99-1> + Details Name: us-gaap\_NetIncomeLoss Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount of cash outflow to satisfy grantee's tax withholding obligation for award under share-based payment arrangement. + ReferencesReference 1: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 15 -Subparagraph (a) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147482740/230-10-45-15> + Details Name: us-gaap\_PaymentsRelatedToTaxWithholdingForShareBasedCompensation Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe cash outflow associated with the acquisition of a business, net of the cash acquired from the purchase. + ReferencesReference 1: <http://fasb.org/us-gaap/role/ref/legacyRef> -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 45 -Paragraph 13 -Subparagraph (b) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147482740/230-10-45-13> + Details Name: us-gaap\_PaymentsToAcquireBusinessesNetOfCashAcquired Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe cash outflow associated with the purchase of all investments (debt, security, other) during the period. + ReferencesReference 1: <http://fasb.org/us-gaap/role/ref/legacyRef> -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 13 -Publisher FASB -URI <https://asc.fasb.org/1943274/2147482740/230-10-45-13> + Details Name: us-gaap\_PaymentsToAcquireInvestments Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe cash outflow associated with the acquisition of long-lived, physical assets that are used in the normal conduct of business to produce goods and services and not intended for resale; includes cash outflows to pay for construction of self-constructed assets. + ReferencesReference 1: <http://fasb.org/us-gaap/role/ref/legacyRef> -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 13 -Subparagraph (c) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147482740/230-10-45-13> + Details Name: us-gaap\_PaymentsToAcquirePropertyPlantAndEquipment Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe cash inflow from the sale of property, plant and equipment (capital expenditures), software, and other intangible assets. + ReferencesReference 1: <http://fasb.org/us-gaap/role/ref/legacyRef> -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 12 -Subparagraph (c) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147482740/230-10-45-12> + Details Name: us-gaap\_ProceedsFromSaleOfProducedAssets Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount of cash inflow from exercise of option under share-based payment arrangement. + ReferencesReference 1: <http://fasb.org/us-gaap/role/ref/legacyRef> -Name Accounting Standards Codification -Section 45 -Paragraph 14 -Subparagraph (a) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147482740/230-10-45-14>Reference 2: <http://fasb.org/us-gaap/role/ref/legacyRef> -Name Accounting Standards Codification -Section 50 -Paragraph 2A -Subparagraph (a) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147480429/718-10-50-2A> + Details Name: us-gaap\_ProceedsFromStockOptionsExercised Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount of increase in right-of-use asset obtained in exchange for operating lease liability. + ReferencesReference 1: <http://www.xbrl.org/2003/role/exampleRef> -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 53 -Publisher FASB -URI <https://asc.fasb.org/1943274/2147479589/842-20-55-53>Reference 2: <http://www.xbrl.org/2003/role/disclosureRef> -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (g)(2) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147478964/842-20-50-4> + Details Name: us-gaap\_RightOfUseAssetObtainedInExchangeForOperatingLeaseLiability Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount of noncash expense for share-based payment arrangement. + ReferencesReference 1: <http://fasb.org/us-gaap/role/ref/legacyRef> -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI <https://asc.fasb.org/1943274/2147482740/230-10-45-28> + Details Name: us-gaap\_ShareBasedCompensation Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap\_SupplementalCashFlowInformationAbstract Namespace Prefix: us-gaap\_Data Type: xbrli:stringItemType Balance Type: na Period Type: duration XML 17 R7.htm IDEA: XBRL DOCUMENT v3.24.3 UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (Parenthetical) \$ in Thousands 9 Months Ended Sep. 30, 2024 USD (\$) Statement of Cash Flows [Abstract] A Cash acquired during acquisition \$ 5 X - DefinitionThe cash inflow associated with the acquisition of business during the period (for example, cash that was held by the acquired business). + ReferencesReference 1: <http://fasb.org/us-gaap/role/ref/legacyRef> -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 45 -Paragraph 12 -Subparagraph (b) -Publisher FASB -URI <https://asc.fasb.org/1943274/2147482740/230-10-45-12> + Details Name: us-gaap\_CashAcquiredFromAcquisition Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap\_StatementOfCashFlowsAbstract Namespace Prefix: us-gaap\_Data Type: xbrli:stringItemType Balance Type: na Period Type: duration XML 18 R8.htm IDEA: XBRL DOCUMENT v3.24.3 DESCRIPTION OF THE BUSINESS AND BASIS OF PRESENTATION 9 Months Ended Sep. 30, 2024 Organization, Consolidation and Presentation of Financial Statements [Abstract] A DESCRIPTION OF THE BUSINESS AND BASIS OF PRESENTATION DESCRIPTION OF THE BUSINESS AND BASIS OF PRESENTATIONDuolingo, A Inc. (the "Company" or "Duolingo") was formed on August 18, 2011, and the Duolingo App was launched to the general public on June 19, 2012. The Company's headquarters are located in Pittsburgh, Pennsylvania. Duolingo is a US-based mobile learning platform, as well as a digital language proficiency assessment exam. The Company has a freemium business model: the app and the website are accessible free of charge, although Duolingo also offers premium services for a subscription fee. As of the date of this filing, Duolingo offers courses in over 40 different languages, including Spanish, English, French, German, Italian, Portuguese, Japanese and Chinese. We have locations in the U.S., China and Germany. Principles of Consolidation The Unaudited Condensed Consolidated Financial Statements include the accounts of the Company and subsidiaries over which the Company has control. All intercompany transactions and balances have been eliminated. Basis of Presentation The accompanying Unaudited Condensed Consolidated Financial Statements have been prepared in accordance with generally accepted accounting principles in the U.S. (the "GAAP") from the Company's accounting records and reflect the consolidated financial position and results of operations for the three and nine months ended September 30, 2024 and 2023. Unless otherwise specified, all dollar amounts (other than per share amounts) are referred to in thousands. The Unaudited Condensed Consolidated Financial Statements have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (the "SEC"). Certain information and note disclosures normally included in financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such SEC rules. We believe that the disclosures made are adequate to make the information presented not misleading. In our opinion, all adjustments considered necessary for a fair presentation of the financial statements have been included, and all adjustments are of a normal and recurring nature. We applied the accounting policies consistently with the policies used in the preparation of the Annual Report on Form 10-K in preparing these Unaudited Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q. These Unaudited Condensed Consolidated Financial Statements should be read in conjunction with the audited financial statements and the notes for the fiscal year ended December 31, 2023 included in the Annual Report on Form 10-K and filed with the SEC. X - DefinitionThe entire disclosure for the business description and basis of presentation concepts. Business description describes the nature and type of organization including but not limited to organizational structure as may be applicable to holding companies, parent and subsidiary relationships, business divisions, business units, business segments, affiliates and information about significant ownership of the reporting entity. Basis of presentation describes the underlying basis used to prepare the financial statements (for example, US Generally Accepted Accounting Principles, Other Comprehensive Basis of Accounting, IFRS). + ReferencesReference 1: <http://fasb.org/us-gaap/role/ref/legacyRef> -Topic 235 -Name Accounting Standards Codification -Publisher FASB -URI <https://asc.fasb.org/235/tableOfContent>Reference 2: <http://fasb.org/us-gaap/role/ref/legacyRef> -Topic 275 -Name Accounting Standards Codification -Publisher FASB -URI <https://asc.fasb.org/275/tableOfContent>Reference 3: <http://fasb.org/us-gaap/role/ref/legacyRef> -Topic 205 -Name Accounting Standards Codification -Publisher FASB -URI <https://asc.fasb.org/205/tableOfContent> + Details Name: us-gaap\_BusinessDescriptionAndBasisOfPresentationTextBlock Namespace Prefix: us-gaap\_Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap\_OrganizationConsolidationAndPresentationOfFinancialStatementsAbstract Namespace Prefix: us-gaap\_Data Type: xbrli:stringItemType Balance Type: na Period Type: duration XML 19 R9.htm IDEA: XBRL DOCUMENT v3.24.3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES 9 Months Ended Sep. 30, 2024 Accounting Policies [Abstract] A SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES SUMMARY OF SIGNIFICANT ACCOUNTING POLICIESAccounting Principles The Unaudited Condensed Consolidated Financial Statements and accompanying



Comprehensive Income. The accounting for the acquisitions has not yet been completed because the Company has not finalized the valuations of the acquired assets, assumed liabilities and identifiable intangible assets, including goodwill. The following table summarizes the Company's preliminary allocation of the purchase consideration based on the fair value of assets acquired and liabilities assumed at the acquisition dates: (In thousands) July 2024 Cash and cash equivalents \$5.0 billion Current assets acquired \$3.7 billion Intangible assets, net Technology 1,007.4 Goodwill 16,488.4 Other liabilities assumed (437) Total purchase price \$7,100.4 Goodwill is attributable to the assembled workforce, future technologies and general going concern arising from the acquisitions. \$3,600 of the goodwill recognized is expected to be deductible for income tax purposes. X - References No definition available. + Details Name: us-gaap Business Combination And Asset Acquisition Abstract Namespace Prefix: us-gaap Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - Definition The entire disclosure for a business combination (or series of individually immaterial business combinations) completed during the period, including background, timing, and recognized assets and liabilities. The disclosure may include leverage buyout transactions (as applicable). + References Reference 1:



the three months ended September 30, 2024 and 2023, respectively, and \$5,095 and \$4,433 during the nine months ended September 30, 2024 and 2023, respectively. The Company did not make any discretionary matching or profit sharing contributions during the three and nine months ended September 30, 2024 or 2023. X - Definition The entire disclosure for defined contribution plan. + ReferencesReference 1: <http://www.xbrl.org/2003/role/disclosureRef-Topic 715 -SubTopic 70 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480794/715-70-50-1>Reference 2: [http://www.xbrl.org/2003/role/disclosureRef-Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph \(c\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1](http://www.xbrl.org/2003/role/disclosureRef-Topic 715 -SubTopic 70 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/715-70/tableOfContent + Details Name: us-gaap DefinedContributionPlanTextBlock Namespace Prefix: us-gaap Data Type: dtr-types:textBlockItem Type Balance Type: na Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap PostemploymentBenefitsAbstract Namespace Prefix: us-gaap Data Type: xbrli:stringItem Type Balance Type: na Period Type: duration XML 30 R20.htm IDEA: XBRL DOCUMENT v3.24.3 EARNINGS PER SHARE 9 Months Ended Sep. 30, 2024 Earnings Per Share [Abstract] A EARNINGS PER SHARE EARNINGS PER SHARE Basic and diluted net income per share attributable to common stockholders is presented in conformity with the two-class method required for participating securities. Basic net income per share attributable to common stockholders is calculated by dividing the net income by the weighted-average number of shares of common stock outstanding during the period, less shares subject to repurchase. The diluted net income per share attributable to common stockholders is calculated by giving effect to all potential dilutive common stock equivalents outstanding for the period. The rights, including the liquidation and dividend rights, of the holders of Class A and Class B common stock are identical, except with respect to voting and conversion. Each share of Class A common stock is entitled to one vote per share and each share of Class B common stock is entitled to 20 votes per share. Each share of Class B common stock is convertible into a share of Class A common stock voluntarily at any time by the holder, and automatically upon certain events. The Class A common stock has no conversion rights. As the liquidation and dividend rights are identical for Class A and Class B common stock, the undistributed earnings are allocated on a proportional basis and the resulting net income per share attributable to common stockholders will, therefore, be the same for both Class A and Class B common stock on an individual or combined basis. Three Months Ended September 30, Nine Months Ended September 30, (In thousands, except per share data) 2024 2023 Numerator: Net income attributable to Class A and Class B common stockholders $23,360 $ 2,807 $ 74,667 $ 3,950 Denominator: Weighted-average shares in computing net income per share attributable to Class A and Class B common stockholders, basic and diluted 43,707 41,719 43,253 41,190 Effect of dilutive securities Founder awards where performance has been met 270 270 A Dilutive effect of stock options outstanding (1) 2,054 3,004 2,054 3,004 RSUs outstanding 1,938 2,223 1,938 2,223 Denominator for dilutive net income per common share - weighted-average shares 46,969 46,946 47,515 46,417 Basic income per common share $ 0.53 $ 0.07 $ 1.73 $ 0.10 Diluted income per common share $ 0.49 $ 0.06 $ 1.57 $ 0.09 (1) The Company had 2.2 million options outstanding as of September 30, 2024. The estimated dilutive effect is calculated as the number of shares expected to be issued upon vesting or exercise, adjusted for the strike price proceeds that are received by the Company and assumed to be used to repurchase shares of Duolingo common stock. X - ReferencesNo definition available. + Details Name: us-gaap EarningsPerShareAbstract Namespace Prefix: us-gaap Data Type: xbrli:stringItem Type Balance Type: na Period Type: duration X - Definition The entire disclosure for earnings per share. + ReferencesReference 1: <a href=)Reference 2: [http://www.xbrl.org/2003/role/disclosureRef-Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-2](http://www.xbrl.org/2003/role/disclosureRef-Topic 260 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/260/tableOfContentReference 3: http://www.xbrl.org/2003/role/disclosureRef-Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-2)Reference 4: <http://www.xbrl.org/2003/role/disclosureRef-Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-3> + Details Name: us-gaap EarningsPerShareTextBlock Namespace Prefix: us-gaap Data Type: dtr-types:textBlockItem Type Balance Type: na Period Type: duration XML 31 R21.htm IDEA: XBRL DOCUMENT v3.24.3 SUBSEQUENT EVENTS 9 Months Ended Sep. 30, 2024 Subsequent Events [Abstract] A SUBSEQUENT EVENTS SUBSEQUENT EVENTSNone. X - ReferencesNo definition available. + Details Name: us-gaap SubsequentEventsAbstract Namespace Prefix: us-gaap Data Type: xbrli:stringItem Type Balance Type: na Period Type: duration X - Definition The entire disclosure for significant events or transactions that occurred after the balance sheet date through the date the financial statements were issued or the date the financial statements were available to be issued. Examples include: the sale of a capital stock issue, purchase of a business, settlement of litigation, catastrophic loss, significant foreign exchange rate changes, loans to insiders or affiliates, and transactions not in the ordinary course of business. + ReferencesReference 1: [http://www.xbrl.org/2003/role/disclosureRef-Topic 855 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph \(a\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483399/855-10-50-2](http://www.xbrl.org/2003/role/disclosureRef-Topic 855 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/855/tableOfContentReference 2: http://www.xbrl.org/2003/role/disclosureRef-Topic 855 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483399/855-10-50-2) + Details Name: us-gaap SubsequentEventsTextBlock Namespace Prefix: us-gaap Data Type: dtr-types:textBlockItem Type Balance Type: na Period Type: duration XML 32 R22.htm IDEA: XBRL DOCUMENT v3.24.3 Pay vs Performance Disclosure - USD (\$) \$ in Thousands 3 Months Ended 9 Months Ended Sep. 30, 2024 Sep. 30, 2023 Sep. 30, 2023 Pay vs Performance Disclosure A A A Net income attributable to Class A and Class B common stockholders \$ 23,360 \$ 2,807 \$ 74,667 \$ 3,950 X - ReferencesReference 1: [http://www.xbrl.org/2003/role/disclosureRef-Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-6](http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Regulation S-K -Number 229 -Section 402 -Subsection v -Paragraph 1 + Details Name: ecd PvpTable Namespace Prefix: ecd Data Type: xbrli:stringItem Type Balance Type: na Period Type: duration X - Definition The portion of profit or loss for the period, net of income taxes, which is attributable to the parent. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef-Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-6)Reference 2: <http://www.xbrl.org/2003/role/disclosureRef-Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 9 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-9>Reference 3: [http://www.xbrl.org/2003/role/disclosureRef-Topic 805 -SubTopic 60 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph \(g\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147476176/805-60-65-1](http://www.xbrl.org/2003/role/disclosureRef-Topic 805 -SubTopic 60 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147476176/805-60-65-1)Reference 4: [http://www.xbrl.org/2003/role/disclosureRef-Topic 740 -SubTopic 323 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph \(g\)\(3\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478666/740-323-65-2](http://www.xbrl.org/2003/role/disclosureRef-Topic 740 -SubTopic 323 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478666/740-323-65-2)Reference 5: [http://www.xbrl.org/2003/role/disclosureRef-Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 2 -Subparagraph \(SX 210.5-03\(20\)\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-599-2](http://www.xbrl.org/2003/role/disclosureRef-Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 2 -Subparagraph (SX 210.5-03(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-599-2)Reference 6: [http://www.xbrl.org/2003/role/disclosureRef-Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1 -Subparagraph \(SX 210.4-08\(g\)\(1\)\(ii\)\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-599-1](http://www.xbrl.org/2003/role/disclosureRef-Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-599-1)Reference 7: [http://www.xbrl.org/2003/role/disclosureRef-Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph \(c\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3](http://www.xbrl.org/2003/role/disclosureRef-Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3)Reference 8: [http://www.xbrl.org/2003/role/disclosureRef-Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph \(f\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28](http://www.xbrl.org/2003/role/disclosureRef-Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28)Reference 9: <http://www.xbrl.org/2003/role/disclosureRef-Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482765/220-10-50-6>Reference 10: <http://www.xbrl.org/2003/role/disclosureRef-Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-3>Reference 11: [http://www.xbrl.org/2003/role/disclosureRef-Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph \(f\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-1](http://www.xbrl.org/2003/role/disclosureRef-Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-1)Reference 12: [http://www.xbrl.org/2003/role/disclosureRef-Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph \(f\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1](http://www.xbrl.org/2003/role/disclosureRef-Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1)Reference 13: <http://www.xbrl.org/2003/role/disclosureRef-Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-8>Reference 14: [http://www.xbrl.org/2003/role/disclosureRef-Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph \(a\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11](http://www.xbrl.org/2003/role/disclosureRef-Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11)Reference 15: [http://www.xbrl.org/2003/role/disclosureRef-Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph \(b\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11](http://www.xbrl.org/2003/role/disclosureRef-Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11)Reference 16: <http://www.xbrl.org/2003/role/disclosureRef-Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-4>Reference 17: <http://www.xbrl.org/2003/role/exampleRef-Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-10>Reference 18: <http://www.xbrl.org/2003/role/disclosureRef-Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section 45 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479105/946-220-45-7>Reference 19: [http://www.xbrl.org/2003/role/disclosureRef-Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section 599 -Paragraph 1 -Subparagraph \(SX 210.7-04\(18\)\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-599-1](http://www.xbrl.org/2003/role/disclosureRef-Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section 599 -Paragraph 1 -Subparagraph (SX 210.7-04(18)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-599-1)Reference 20: [http://www.xbrl.org/2003/role/disclosureRef-Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section 599 -Paragraph 1 -Subparagraph \(SX 210.6-07\(9\)\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-599-1](http://www.xbrl.org/2003/role/disclosureRef-Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section 599 -Paragraph 1 -Subparagraph (SX 210.6-07(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-599-1)Reference 21: [http://www.xbrl.org/2003/role/disclosureRef-Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section 599 -Paragraph 3 -Subparagraph \(SX 210.6-09\(1\)\(d\)\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-599-3](http://www.xbrl.org/2003/role/disclosureRef-Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section 599 -Paragraph 3 -Subparagraph (SX 210.6-09(1)(d)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-599-3)Reference 22: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1A -Subparagraph \(SX 210.13-01\(a\)\(4\)\(i\)\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1A](http://www.xbrl.org/2003/role/disclosureRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1A)Reference 23: [http://www.xbrl.org/2009/role/commonPracticeRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1A -Subparagraph \(SX 210.13-01\(a\)\(4\)\(ii\)\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1A](http://www.xbrl.org/2009/role/commonPracticeRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1A)Reference 24: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1A -Subparagraph \(SX 210.13-01\(a\)\(4\)\(iii\)\(A\)\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1A](http://www.xbrl.org/2003/role/disclosureRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1A)Reference 25: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1A -Subparagraph \(SX 210.13-01\(a\)\(4\)\(iv\)\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1A](http://www.xbrl.org/2003/role/disclosureRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1A)Reference 26: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1A -Subparagraph \(SX 210.13-01\(a\)\(5\)\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1A](http://www.xbrl.org/2003/role/disclosureRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1A)Reference 27: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1B -Subparagraph \(SX 210.13-02\(a\)\(4\)\(i\)\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1B](http://www.xbrl.org/2003/role/disclosureRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1B)Reference 28: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1B -Subparagraph \(SX 210.13-02\(a\)\(4\)\(iii\)\(B\)\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1B](http://www.xbrl.org/2003/role/disclosureRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1B)Reference 29: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1B -Subparagraph \(SX 210.13-02\(a\)\(4\)\(iv\)\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1B](http://www.xbrl.org/2003/role/disclosureRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1B)Reference 30: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1B -Subparagraph \(SX 210.13-02\(a\)\(4\)\(v\)\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1B](http://www.xbrl.org/2003/role/disclosureRef-Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 599 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(v)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-599-1B)Reference 31: [http://www.xbrl.org/2003/role/disclosureRef-Topic 470 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Accounting Standards Codification -Section 50 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483499/205-20-50-7>Reference 34: <http://www.xbrl.org/2003/role/disclosureRef-Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28>Reference 35: [http://www.xbrl.org/2003/role/disclosureRef-Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1A -Subparagraph \(a\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1A](http://www.xbrl.org/2003/role/disclosureRef-Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1A)Reference 36: [http://www.xbrl.org/2003/role/disclosureRef-Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1B -Subparagraph \(a\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1B](http://www.xbrl.org/2003/role/disclosureRef-Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1B)Reference 37: [http://www.xbrl.org/2003/role/disclosureRef-Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section 599 -Paragraph 1 -Subparagraph \(SX 210.9-04\(22\)\) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-599-1](http://www.xbrl.org/2003/role/disclosureRef-Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section 599 -Paragraph 1 -Subparagraph (SX 210.9-04(22)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-599-1) + Details Name: us-gaap NetIncomeLoss Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: duration XML 33 R23.htm IDEA: XBRL DOCUMENT v3.24.3 Insider Trading Arrangements 3 Months Ended Sep. 30, 2024 Shares Sep. 30, 2024 Shares Trading Arrangements, by Individual A Non-Rule 10b5-1 Arrangement Adopted false A Rule 10b5-1 Arrangement Terminated false A Non-Rule 10b5-1 Arrangement Terminated false A Dr. Severin Hacker [Member] A A Trading Arrangements, by Individual A A Material Terms of Trading Arrangement A On September 10, 2024, Dr. Severin Hacker, Chief Technology Officer and Director, entered into a 10b5-1 sales plan (the "Hacker 10b5-1 Sales Plan") intended to satisfy the affirmative defense of Rule 10b5-1(c) of the Exchange Act and providing for the potential exercise of vested stock options and the associated sale of up to 504,248 shares of the Company's Class A common stock. The Hacker 10b5-1 Sales Plan will remain in effect until the earlier of (1) December 4, 2025, (2) the date on which all trades set forth in the Hacker 10b5-1 Sales Plan have been executed, or (3) such time as the Hacker 10b5-1 Sales Plan is otherwise terminated according to its terms. Name Dr. Severin Hacker A Title Chief Technology Officer and Director A Rule 10b5-1 Arrangement Adopted true A Adoption Date September 10, 2024 A Expiration Date December 4, 2025 A Arrangement Duration 455 days A Aggregate Available 504,248 504,248 X - ReferencesReference 1:

Section 408 -Subsection a -Paragraph 2 -Subparagraph D + Details Name: ecd TrdArrSecuritiesAggAvailAmt Namespace Prefix: ecd\_Data Type: xbrli:sharesItem Type Balance Type: na Period Type: instant X - Details Name: ecd IndividualAxis=duol Dr.SeverinHackerMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 34 R24.htm IDEA: XBRL DOCUMENT v3.24.3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Policies) 9 Months Ended Sep. 30, 2024 Accounting Policies [Abstract] A Principles of Consolidation Principles of Consolidation The Unaudited Condensed Consolidated Financial Statements include the accounts of the Company and subsidiaries over which the Company has control. All intercompany transactions and balances have been eliminated. Basis of Presentation and Accounting Principles Basis of Presentation The accompanying Unaudited Condensed Consolidated Financial Statements have been prepared in accordance with generally accepted accounting principles in the U.S. (Accounting Principles) from the Company's accounting records and reflect the consolidated financial position and results of operations for the three and nine months ended September 30, 2024 and 2023. Unless otherwise specified, all dollar amounts (other than per share amounts) are referred to in thousands. Accounting Principles The Unaudited Condensed Consolidated Financial Statements and accompanying notes are prepared in accordance with GAAP. Use of Estimates Use of Estimates The preparation of Unaudited Condensed Consolidated Financial Statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the Unaudited Condensed Consolidated Financial Statements and accompanying notes. Significant estimates and assumptions reflected in the Unaudited Condensed Consolidated Financial Statements include, but are not limited to, useful lives of property and equipment and intangible assets, valuation of deferred tax assets and liabilities, stock-based compensation, common stock valuation, operating lease right-of-use assets and liabilities, capitalization of internally developed software and associated useful lives, contingent liabilities, fair value of investments and valuation of goodwill and intangible assets from acquisitions. Actual results may differ materially from such estimates. Management believes that the estimates, and judgments upon which they rely, are reasonable based upon information available to them at the time that these estimates and judgments are made. To the extent that there are material differences between these estimates and actual results, the Company's Unaudited Condensed Consolidated Financial Statements will be affected. Cash and Cash Equivalents Cash and Cash Equivalents Cash consists primarily of cash on hand and bank deposits. Cash equivalents consist primarily of money market accounts with maturities of three months or less at the date of acquisition and are stated at cost, which approximates fair value. The Company maintains cash deposits with financial institutions that may exceed federally insured limits at times. Investments Investments Investments consist primarily of corporate debt securities and U.S. Treasury securities. Management determines the appropriate classification of investments at the time of purchase based upon management's intent with regard to such investments. The Company's investments are classified as held-to-maturity at the time of purchase, and such classifications are reevaluated as of each balance sheet date. All highly liquid investments with an original maturity of 90 days or less when purchased are considered to be cash equivalents. Investments with remaining contractual maturities of one year or less from the balance sheet date, which are not considered cash equivalents, are classified as short-term investments, and those with remaining contractual maturities greater than one year from the balance sheet date are classified as long-term investments. All investments are recorded at amortized cost. Realized gains and losses on sales and maturities of investments are determined based on the specific identification method and are recognized in the Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income. We perform periodic evaluations to determine whether any declines in the fair value of investments below cost are other-than-temporary. The evaluation consists of qualitative and quantitative factors regarding the severity and duration of the unrealized loss, as well as the Company's ability and intent to hold the investments until a forecasted recovery occurs. The impairments are considered to be other-than-temporary if they are related to deterioration in credit risk or if it is likely that the underlying securities will be sold or mature prior to a full recovery of their cost basis. Other-than-temporary fair value impairments, if any, are determined based on the specific identification method and are reported in Other income (expense), net in the Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income Acquisitions Acquisitions The Company uses the acquisition method of accounting for business combination transactions, and, accordingly, recognizes the fair values of assets acquired and liabilities assumed in the Company's Unaudited Condensed Consolidated Financial Statements. The excess of the fair value of purchase consideration over the values of these identifiable assets and liabilities is recorded as goodwill. Transaction costs related to the acquisition of the acquired company are expensed as incurred. The allocation of fair values may be subject to adjustment after the initial allocation for up to a one-year period as more information becomes available relative to the fair values as of the acquisition date. The Unaudited Condensed Consolidated Financial Statements include the results of operations of any acquired company since the acquisition date. Advertising Costs Advertising Costs Advertising costs were approximately \$18,149 and \$45,617 for the three and nine months ended September 30, 2024, and \$16,229 and \$39,528 for the three and nine months ended September 30, 2023, respectively, and are included within Sales and marketing in the Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income. Income Taxes Income Taxes The Company's provision for income taxes is computed by using an estimate of the annual effective tax rate, adjusted for discrete items taken into account in the relevant period, if any. Each quarter, the annual effective income tax rate is recomputed and if there are material changes in the estimate, a cumulative adjustment is made. Concentration of Credit Risk Concentration of Credit Risk The Company's concentration of credit risk relates to financial institutions holding the Company's cash and cash equivalents and platforms with significant accounts receivable balances and revenue transactions. The Company maintains cash deposits with financial institutions that may exceed federally insured limits at times. Management believes that the financial institutions that hold the Company's deposits are financially credit worthy and, accordingly, minimal credit risk exists with respect to those balances. Impairment of long-lived assets Impairment of long-lived assets The Company reviews its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If the sum of the estimated undiscounted future cash flows expected to result from the use and eventual disposition of an asset is less than the carrying amount of the asset, an impairment loss is recognized. Measurement of an impairment loss is based on the fair value of the asset. Allowance for Credit Losses Allowance for Credit Losses The Company evaluates its cash equivalents, accounts receivable and held-to-maturity marketable securities financial assets for expected credit losses. Expected credit losses represent the portion of the amortized cost basis of a financial asset that an entity does not expect to collect. An allowance for expected credit losses is meant to reflect a risk of loss even if remote, irrespective of the expectation of collection from a particular issuer or debt security. The Company has not historically experienced any credit losses on any of its financial assets. With respect to cash equivalents and accounts receivable, given consideration of their short maturity, lack of historical losses and the current environment, the Company concluded there is generally no expected credit losses for these financial assets. With respect to held-to-maturity marketable securities which are comprised of debt securities, the Company evaluates expected credit losses on a pooled basis based on issuer-type which have similar credit risk characteristics. The allowance for credit losses is immaterial for all periods presented. Recently Issued Pronouncements Not Yet Adopted and Recently Adopted Accounting Pronouncements Recently Issued Pronouncements Not Yet Adopted In November 2023, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2023-07, Segment Reporting (Topic 280), which improves reportable segment disclosure requirements, primarily through enhanced disclosures about significant segment expenses. The standard is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. Early adoption is permitted. The Company does not expect the adoption of the new guidance will have a material impact on the Company's consolidated financial statements and related disclosures. In December 2023, the FASB issued ASU 2023-09, Income Taxes (Topic 740), which includes improvements to income tax disclosures. The standard is effective for public entities in fiscal years beginning after December 15, 2024. Early adoption is permitted. The Company does not expect the adoption of the new guidance will have a material impact on the Company's consolidated financial statements and related disclosures. Recently Adopted Accounting Pronouncements There are no recently adopted accounting pronouncements. Fair Value The Company accounts for certain assets and liabilities at fair value in accordance with the accounting guidance applicable to fair value measurements and disclosures. The carrying values of cash, cash equivalents, accounts receivable, accounts payable, and accrued expenses are deemed to be reasonable estimates of their fair values because of their short-term nature. The Company applies fair value accounting for all financial assets and liabilities and non-financial assets and liabilities that are recognized or disclosed at fair value in the financial statements on a recurring and non-recurring basis. The Company defines fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities, which are required to be recorded at fair value, the Company considers the principal or most advantageous market in which the Company would transact and the market-based risk measurements or assumptions that market participants would use in pricing the asset or liability, such as inherent risk, transfer restrictions, and credit risk. The Company applies the following fair value hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement. Level 1 Observable inputs such as quoted prices in active markets for identical investments that the Company has the ability to access. Level 2 Inputs include: Quoted prices for similar assets or liabilities in active markets; Quoted prices for identical or similar assets or liabilities in inactive markets; Inputs, other than quoted prices in active markets, which are observable either directly or indirectly; Inputs that are derived principally from, or corroborated by, observable market data by correlation or other means. Level 3 Unobservable inputs in which there is little or no market activity for the asset or liability, which require the reporting entity to develop its own estimates and assumptions relating to the pricing of the asset or liability including assumptions regarding risk. Revenue REVENUE The Company has four predominant sources of revenues; time-based subscriptions, in-app advertising placement by third parties, the Duolingo English Test, and In-App Purchases. REVENUE is recognized upon transfer of control of promised products or services to users in an amount that reflects the consideration the Company expects to receive in exchange for those services. The Company does not enter into contracts with a customer that contain multiple promises that result in multiple performance obligations. Revenue is recorded net of taxes assessed by a government authority that are both imposed on and concurrent with specific revenue transactions between Duolingo and its users. Revenue from time-based subscriptions includes a stand-ready obligation to provide hosting services that are consumed by the customer over the subscription period. Users can purchase Duolingo monthly or they can purchase a year-long subscription and pay for the subscription at the time of purchase. Under the year-long subscription, users can also purchase a single plan or a family plan. The family plan includes up to six users on one subscription. Such payments are initially recorded to deferred revenue. The user has the ability to download limited content offline. However, as there is a significant level of integration and interdependency with the online functionality, the Company considers the service to be a single performance obligation for the online and offline content. The Company enters into arrangements with advertising networks to monetize the in-app advertising inventory. Revenue from in-app advertising placement is recognized at a point in time when the advertisement is placed and is based upon the amount received. Duolingo English Test revenue is generally recognized once the tests have gone through the proctoring process and a certification decision has been made. This process usually takes less than 48 hours after the test has been completed and uploaded. Customers have 21 days from the date of purchase to take the exam or their purchase will expire and revenue will be recognized. Virtually all customers complete their exams prior to expiration. Sometimes organizations may purchase tests in bulk via coupons with a one year expiration date. The Company will defer revenue from all tests that have neither been proctored nor expired. The Company's users have the option to purchase consumable in-app virtual goods. The Company recognizes revenue over the period in which the user consumes the virtual good, which is generally within a month. The Company also recognizes revenue from TaquerAa, a restaurant that opened during 2022, in the space adjacent to Duolingo's headquarters in Pittsburgh. Revenue from Duolingo's TaquerAa is recognized at a point in time when the sales are made. Principal Agent Considerations The Company makes its application available to be downloaded through third-party digital distribution service providers. Users who purchase subscriptions also pay through the respective app stores. The Company evaluates the purchases via third-party payment processors to determine whether its revenues should be reported gross or net of fees retained by the payment processor. The Company is the principal in the transaction with the end user as a result of controlling, hosting, and integrating the delivery of the virtual items to the end user. The Company records revenue gross as a principal and records fees paid to third-party payment processors as Cost of revenues. Contract Balances Deferred revenue mostly consists of payments received in advance of revenue recognition, and is mostly related to time-based subscriptions, which will be recognized into revenue over the course of the upcoming year (recognized over 12 months or less). Additionally, the Duolingo English Test has deferred revenue related to tests that have been purchased, but will not be recognized until the tests have been proctored. Disaggregation of Revenue in accordance with ASC 606, Revenue from Contracts with Customers, the Company disaggregates revenue from contracts with customers into revenue streams, which most closely depict how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors. X - References No definition available. + Details Name: us-gaap\_AccountingPoliciesAbstract Namespace Prefix: us-gaap\_Data Type: xbrli:stringItem Type Balance Type: na Period Type: duration X - Definition Disclosure of accounting policy for advertising cost. + References Reference 1: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -SubTopic 35 -Topic 720 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483406/720-35-50-1 + Details Name: us-gaap\_AdvertisingCostsPolicyTextBlock Namespace Prefix: us-gaap\_Data Type: dtr-types:textBlockItem Type Balance Type: na Period Type: duration X - Definition Disclosure of accounting policy for basis of accounting, or basis of presentation, used to prepare the financial statements (for example, US Generally Accepted Accounting Principles, Other Comprehensive Basis of Accounting, IFRS). + References No definition available. + Details Name: us-gaap\_BasisOfAccountingPolicyTextBlock Namespace Prefix: us-gaap\_Data Type: dtr-types:textBlockItem Type Balance Type: na Period Type: duration X - Definition Disclosure of accounting policy for business combinations and other business acquisition transactions not accounted for using the purchase method, such as an exchange of shares between entities under common control. + References Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 15 -Paragraph 6 -SubTopic 50 -Topic 805 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480123/805-50-15-6 Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 15 -Paragraph 4 -Subparagraph (c) -SubTopic 10 -Topic 805 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479455/805-10-15-4 + Details Name: us-gaap\_BusinessCombinationsAndOtherPurchaseOfBusinessTransactionsPolicyTextBlock Namespace Prefix: us-gaap\_Data Type: dtr-types:textBlockItem Type Balance Type: na Period Type: duration X - Definition Disclosure of accounting policy for cash and cash equivalents, including the policy for determining which items are treated as cash equivalents. Other information that may be disclosed includes (1) the nature of any restrictions on the entity's use of its cash and cash equivalents, (2) whether the entity's cash and cash equivalents are insured or expose the entity to credit risk, (3) the classification of any negative balance accounts (overdrafts), and (4) the carrying basis of cash equivalents (for example, at cost) and whether the carrying amount of cash equivalents approximates fair value. + References Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-1 + Details Name: us-gaap\_CashAndCashEquivalentsPolicyTextBlock Namespace Prefix: us-gaap\_Data Type: dtr-types:textBlockItem Type Balance Type: na Period Type: duration X - Definition Disclosure of accounting policy for credit risk. + References Reference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 942 -SubTopic 825 -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478898/942-825-50-1 Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (d) -SubTopic 10 -Topic 275 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-1 + Details Name: us-gaap\_ConcentrationRiskCreditRisk Namespace Prefix: us-gaap\_Data Type: dtr-types:textBlockItem Type Balance Type: na Period Type: duration X - Definition Disclosure of accounting policy regarding (1) the principles it follows in consolidating or combining the separate financial statements, including the principles followed in determining the inclusion or exclusion of subsidiaries or other entities in the consolidated or combined financial statements and (2) its treatment of interests (for example, common stock, a partnership interest or other means of exerting influence) in other entities, for example consolidation or use of the equity or cost methods of accounting. The accounting policy may also address the accounting treatment for intercompany accounts and transactions, noncontrolling interest, and the income statement treatment in consolidation for issuances of stock by a subsidiary. + References Reference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483426/235-10-50-4 Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 810 -SubTopic 10 -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481203/810-10-50-1 + Details Name: us-gaap\_ConsolidationPolicyTextBlock Namespace Prefix: us-gaap\_Data Type: dtr-types:textBlockItem Type Balance Type: na Period Type: duration X - Definition Disclosure of accounting policy for credit loss on financial instrument measured at amortized cost basis, net investment in lease, off-balance sheet credit exposure, and available-for-sale debt security. Includes, but is not limited to, methodology used to estimate allowance for



revenue(227,305)(143,810)Recognition of deferred revenue(239,410)(173,408)Deferral of revenue528,126À 368,556À Ending balance€“September 30\$310,603À \$208,888À X - DefinitionTabular disclosure of receivable, contract asset, and contract liability from contract with customer. Includes, but is not limited to, change in contract asset and contract liability. + ReferencesReference 1:

tr-types:textBlockItem Type: na Period Type: duration X - Definition Disclosure of the number and weighted-average grant date fair value for restricted stock and restricted stock units that were outstanding at the beginning and end of the year, and the number of restricted stock and restricted stock units that were granted, vested, or forfeited during the year. + ReferencesNo definition available. + Details Name: us-gaap\_ScheduleOfShareBasedCompensationRestrictedStockAndRestrictedStockUnitsActivityTableTextBlock Namespace Prefix: us-gaap Data Type: dtr-types:textBlockItem Type: na Period Type: duration XML 43 R33.htm IDEA: XBRL DOCUMENT v3.24.3 EARNINGS PER SHARE (Tables) 9 Months Ended Sep. 30, 2024 Earnings Per Share [Abstract] A Schedule of Earnings Per Share, Basic and Diluted As the liquidation and dividend rights are identical for Class A and Class B common stock, the undistributed earnings are allocated on a proportional basis and the resulting net income per share attributable to common stockholders will, therefore, be the same for both Class A and Class B common stock on an individual or combined basis. Three Months Ended September 30, Nine Months Ended September 30, (In thousands, except per share data) 2024 2023 2022 2021 Numerator: Net income attributable to Class A and Class B common stockholders \$23,360A \$2,807A \$74,667A \$3,950A Denominator: Weighted-average shares in computing net income per share attributable to Class A and Class B common stockholders, basic and diluted 43,707A 41,719A 43,253A 41,190A Effect of dilutive securities Founder awards where performance has been met 270A 270A A Dilutive effect of stock options outstanding (1), 054A 3,004A 2,054A 3,004A RSUs outstanding 1,938A 2,223A 1,938A 2,223A Denominator for dilutive net income per common share - weighted-average shares 47,969A 46,946A 47,515A 46,417A Basic income per common share 0.53A 0.07A 1.73A 0.10A Diluted income per common share 0.49A 0.06A 1.57A 0.09A (1) The Company had 2.2A million options outstanding as of September 30, 2024. The estimated dilutive effect is calculated as the number of shares expected to be issued upon vesting or exercise, adjusted for the strike price proceeds that are received by the Company and assumed to be used to repurchase shares of Duolingo common stock. X - ReferencesNo definition available. + Details Name: us-gaap\_EarningsPerShareAbstract Namespace Prefix: us-gaap Data Type: xbrli:stringItem Type: na Period Type: duration X - Definition Tabular disclosure of an entity's basic and diluted earnings per share calculations, including a reconciliation of numerators and denominators of the basic and diluted per-share computations for income from continuing operations. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1 + Details Name: us-gaap\_ScheduleOfEarningsPerShareBasicAndDilutedTableTextBlock Namespace Prefix: us-gaap Data Type: dtr-types:textBlockItem Type: na Period Type: duration XML 44 R34.htm IDEA: XBRL DOCUMENT v3.24.3 DESCRIPTION OF THE BUSINESS AND BASIS OF PRESENTATION (Details) Sep. 30, 2024 language Organization, Consolidation and Presentation of Financial Statements [Abstract] A Number of languages, more than 40 X - Definition Number Of Languages + ReferencesNo definition available. + Details Name: duol\_NumberOfLanguages Namespace Prefix: duol Data Type: xbrli:integerItem Type: na Period Type: instant X - ReferencesNo definition available. + Details Name: us-gaap\_OrganizationConsolidationAndPresentationOfFinancialStatementsAbstract Namespace Prefix: us-gaap Data Type: xbrli:stringItem Type: na Period Type: duration XML 45 R35.htm IDEA: XBRL DOCUMENT v3.24.3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Details) - USD (\$) 3 Months Ended 9 Months Ended 12 Months Ended Sep. 30, 2024 Sep. 30, 2023 Sep. 30, 2022 Sep. 30, 2023 Concentration Risk [Line Items] A A A A Advertising costs \$ 18,149,000 \$ 16,229,000 \$ 45,617,000 \$ 39,528,000 A Impairment \$ 0 \$ 0 \$ 0 \$ 0 A Accounts Receivable | Customer Concentration Risk | Apple A A A A Concentration Risk [Line Items] A A A A Concentration risk (in percent) A A 69.70% A 65.20% Accounts Receivable | Customer Concentration Risk | Google A A A A Concentration Risk [Line Items] A A A A Concentration risk (in percent) A A 15.00% A 20.70% Accounts Receivable | Customer Concentration Risk | Stripe A A A A Concentration Risk [Line Items] A A A A Concentration risk (in percent) A A 10.70% X - Definition Amount charged to advertising expense for the period, which are expenses incurred with the objective of increasing revenue for a specified brand, product or product line. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 720 -SubTopic 35 -Name Accounting Standards Codification -Section 55 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483385/720-35-55-1 Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 720 -SubTopic 35 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483406/720-35-50-1 + Details Name: us-gaap\_AdvertisingExpense Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type: na Period Type: debit Period Type: duration X - Definition Amount of write-down of assets recognized in the income statement. Includes, but is not limited to, losses from tangible assets, intangible assets and goodwill. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (b) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28 Reference 2: http://www.xbrl.org/2003/role/exampleRef -Name Accounting Standards Codification -Section 360 -SubTopic 10 -Section 45 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482130/360-10-45-4 + Details Name: us-gaap\_AssetImpairmentCharges Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type: na Period Type: debit Period Type: duration X - Definition Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 954 -SubTopic 310 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482875/954-310-50-2 + Details Name: us-gaap\_ConcentrationRiskLineItems Namespace Prefix: us-gaap Data Type: xbrli:stringItem Type: na Period Type: duration X - Definition For an entity that discloses a concentration risk in relation to quantitative amount, which serves as the "benchmark" (or denominator) in the equation, this concept represents the concentration percentage derived from the division. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 42 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-42 Reference 2: http://www.xbrl.org/2003/role/exampleRef -Name Accounting Standards Codification -Section 825 -SubTopic 10 -Section 50 -Paragraph 21 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-21 Reference 3: http://www.xbrl.org/2003/role/exampleRef -Name Accounting Standards Codification -Section 825 -SubTopic 10 -Section 50 -Paragraph 20 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-20 Reference 4: http://www.xbrl.org/2003/role/exampleRef -Name Accounting Standards Codification -Section 275 -SubTopic 10 -Section 50 -Paragraph 18 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-18 Reference 5: http://www.xbrl.org/2003/role/exampleRef -Name Accounting Standards Codification -Section 275 -SubTopic 10 -Section 50 -Paragraph 20 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-20 + Details Name: us-gaap\_ConcentrationRiskPercentage1 Namespace Prefix: us-gaap Data Type: dtr-types:percentItem Type: na Period Type: duration X - Details Name: us-gaap\_ConcentrationRiskByBenchmarkAxis = us-gaap\_AccountsReceivableMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap\_ConcentrationRiskByTypeAxis = us-gaap\_CustomerConcentrationRiskMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt\_MajorCustomersAxis = duol\_AppleMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt\_MajorCustomersAxis = duol\_GoogleMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt\_MajorCustomersAxis = duol\_StripeMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 46 R36.htm IDEA: XBRL DOCUMENT v3.24.3 FAIR VALUE - Schedule of Net Unrealized Gains (Losses), and Fair Value by Major Security Type for Our Investments (Details) - USD (\$) in Thousands Sep. 30, 2024 Dec. 31, 2023 Fair Value, Assets Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] A A Cash \$ 63,300 \$ 50,373 Gross Unrealized Gains 0 0 Gross Unrealized Losses (76) 0 Amortized Cost 871,791 697,237 Fair Value 936,015 747,610 Short-term investments 26,354 0 Cash and cash equivalents 854,409 747,610 Long-Term Investments 55,328 0 Level 1 A A Fair Value, Assets Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] A A Cash Equivalents 2,936 A Level 1 | Money market funds A A Fair Value, Assets Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] A A Cash Equivalents 791,109 \$ 697,237 Level 1 | Cash Equivalents A A Fair Value, Assets Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] A A Cash Equivalents 791,109 A Level 1 | Cash Equivalents | Money market funds A A Fair Value, Assets Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] A A Cash Equivalents 791,109 A Level 1 | Short-Term Investments A A Fair Value, Assets Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] A A Short-term investments 2,936 A Level 1 | Short-Term Investments | Commercial paper A A Fair Value, Assets Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] A A Short-term investments 2,936 A Level 2 A A Fair Value, Assets Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] A A Amortized Cost 77,746 A Gross Unrealized Gains 0 A Gross Unrealized Losses (76) A Fair Value 77,760 A Short-term investments 23,418 A Debt securities, held to maturity 54,328 A Level 2 | Corporate debt securities A A Fair Value, Assets Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] A A Amortized Cost 65,901 A Gross Unrealized Gains 0 A Gross Unrealized Losses (75) A Fair Value 65,826 A Short-term investments 11,573 A Debt securities, held to maturity 54,328 A Level 2 | U.S. Treasury securities A A Fair Value, Assets Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] A A Amortized Cost 11,845 A Gross Unrealized Gains 0 A Gross Unrealized Losses (1) A Fair Value 11,844 A Short-term investments 11,845 A Debt securities, held to maturity A Level 3 A A Fair Value, Assets Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] A A Investment in SAFE \$ 1,000 A X - Definition Debt Securities, Held-To-Maturity, Amortized Cost, After Allowance For Credit Loss And Cash Equivalents, Carrying Value + ReferencesNo definition available. + Details Name: duol\_DebtSecuritiesHeldToMaturityAmortizedCostAfterAllowanceForCreditLossAndCashEquivalentsCarryingValue Namespace Prefix: duol Data Type: xbrli:monetaryItem Type: na Period Type: debit Period Type: instant X - Definition Fair value portion of asset recognized for present right to economic benefit. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 100 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482078/820-10-55-100 Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-2 Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-2 + Details Name: us-gaap\_AssetsFairValueDisclosure Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type: na Period Type: instant X - Definition Amount of currency on hand as well as demand deposits with banks or financial institutions. Includes other kinds of accounts that have the general characteristics of demand deposits. Excludes cash and cash equivalents within disposal group and discontinued operation. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10 Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/214749168/946-830-55-12 Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(2)) -Publisher FASB -URI https://asc.fasb.org/1943274/214747877/944-210-S99-1 Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1 Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section 45 -Paragraph 21 -Publisher FASB -URI https://asc.fasb.org/1943274/214747796/946-210-45-21 Reference 6: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 45 -Paragraph 20 -SubTopic 210 -Topic 946 -Publisher FASB -URI https://asc.fasb.org/1943274/214747796/946-210-45-20 + Details Name: us-gaap\_Cash Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type: na Period Type: instant X - Definition Amount of currency on hand as well as demand deposits with banks or financial institutions. Includes other kinds of accounts that have the general characteristics of demand deposits. Also includes short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. Excludes cash and cash equivalents within disposal group and discontinued operation. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483467/210-10-45-1 Reference 3: http://www.xbrl.org/2003/role/exampleRef -Name Accounting Standards Codification -Section 230 -SubTopic 10 -Section 45 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-4 + Details Name: us-gaap\_CashAndCashEquivalentsAtCarryingValue Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type: na Period Type: instant X - Definition Amount of short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. Excludes cash and cash equivalents within disposal group and discontinued operation. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(2)) -Publisher FASB -URI https://asc.fasb.org/1943274/214747877/944-210-S99-1 Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap\_CashEquivalentsAtCarryingValue Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type: na Period Type: debit Period Type: instant X - Definition Amount, after allowance for credit loss, of investment in debt security measured at amortized cost (held-to-maturity). + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481800/320-10-50-5 Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481800/320-10-50-5 Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481830/320-10-45-1 + Details Name: us-gaap\_DebtSecuritiesHeldToMaturityAmortizedCostAfterAllowanceForCreditLoss Namespace Prefix: us-gaap Data Type: xbrli:monetaryItem Type: na Period Type: instant X - Definition Amount, after allowance for credit loss, of investment in debt security measured at amortized cost (held-to-maturity), classified as current. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481800/320-10-50-5 Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481800/320-10-50-5 Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481830/320-10-45-2 Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481800/320-10-50-5 Reference 7: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481830/320-10-45-2 Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481830/320-10-45-1 Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481800/320-10-50-5 Reference 11: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481800/320-10-50-5 Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481830/320-10-45-1 Reference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481800/320-10-50-5 Reference 15: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481800/320-10-50-5 Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 21: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 22: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 23: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 24: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 25: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 26: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 27: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 28: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 29: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 30: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 31: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 32: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 33: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 34: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 35: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 36: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 37: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 38: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 39: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 40: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 41: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 42: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 43: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification 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210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 52: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 53: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 54: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 Reference 55: http://www.xbrl.org/2003/role/disclosureRef 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Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481800/320-10-45-1 + Details Name: us-gaap DebtSecuritiesHeldToMaturityAmortizedCostAfterAllowanceForCreditLossNoncurrent Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of investment in equity security without readily determinable fair value. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 321 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479536/321-10-50-3 + Details Name: us-gaap EquitySecuritiesWithoutReadilyDeterminableFairValueAmount Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionLine items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 101 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482078/820-10-55-101Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-3Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-2Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-2Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-2Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-2Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-2 + Details Name: us-gaap FairValueAssetsMeasuredOnRecurringBasisUnobservableInputReconciliationLineItems Namespace Prefix: us-gaap Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount of accumulated unrecognized gain on investment in debt security measured at amortized cost (held-to-maturity). + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481800/320-10-50-5Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5A -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481800/320-10-50-5A + Details Name: us-gaap HeldToMaturitySecuritiesAccumulatedUnrecognizedHoldingGain Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of accumulated unrealized loss on investment in debt security measured at amortized cost (held-to-maturity). + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481800/320-10-50-5Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481800/320-10-50-5Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Subparagraph (aa) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481800/320-10-50-5Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(12)) -Publisher FASB -URI https://asc.fasb.org/1943274/214748777/944-210-S99-1Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481800/320-10-50-5Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 + Details Name: us-gaap HeldToMaturitySecuritiesFairValue Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionThe total amount of investments that are intended to be held for an extended period of time (longer than one operating cycle). + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(12)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap LongTermInvestments Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - Details Name: us-gaap FairValueByFairValueHierarchyLevelAxis=us-gaap FairValueInputsLevel1Member Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap CashAndCashEquivalentsAxis=us-gaap CommercialPaperMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap CashAndCashEquivalentsAxis=us-gaap MoneyMarketFundsMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap BalanceSheetLocationAxis=us-gaap CashEquivalentsMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap BalanceSheetLocationAxis=us-gaap ShortTermInvestmentsMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap FairValueByFairValueHierarchyLevelAxis=us-gaap FairValueInputsLevel2Member Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap FinancialInstrumentAxis=us-gaap CorporateDebtSecuritiesMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap FinancialInstrumentAxis=us-gaap USTreasurySecuritiesMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap FairValueByFairValueHierarchyLevelAxis=us-gaap FairValueInputsLevel3Member Namespace Prefix: Data Type: na Balance Type: Period Type: XML 47 R37.htm IDEA: XBRL DOCUMENT v3.24.3 FAIR VALUE - Narrative (Details) - USD (\$) 9 Months Ended 12 Months Ended Sep. 30, 2024 Dec. 31, 2023 Fair Value, Net Derivative Asset (Liability) Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] A A Other-than-temporary impairments \$ 0 \$ 0 Minimum A A Fair Value, Net Derivative Asset (Liability) Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] A A Long-term investments, maturity term (in years) 1 year 1 year Maximum A A Fair Value, Net Derivative Asset (Liability) Measured on Recurring Basis, Unobservable Input Reconciliation [Line Items] A A Long-term investments, maturity term (in years) 3 years 3 years X - DefinitionLong-Term Investments, Maturity Term + ReferencesNo definition available. + Details Name: duol LongTermInvestmentsMaturityTerm Namespace Prefix: duol Data Type: xbrli:durationItemType Balance Type: na Period Type: instant X - DefinitionLine items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-3Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-2Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-2Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-2Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482106/820-10-50-2 + Details Name: us-gaap FairValueNetDerivativeAssetLiabilityMeasuredOnRecurringBasisUnobservableInputReconciliationLineItems Namespace Prefix: us-gaap Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount of other-than-temporary impairment (OTTI) on investment in debt security, recognized in earnings. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 320 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 8A -Publisher FASB -URI https://asc.fasb.org/1943274/2147481830/320-10-45-8A + Details Name: us-gaap OtherThanTemporaryImpairmentLossDebtSecuritiesPortionRecognizedInEarnings Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - Details Name: srt RangeAxis=srt MinimumMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt RangeAxis=srt MaximumMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 48 R38.htm IDEA: XBRL DOCUMENT v3.24.3 ACQUISITIONS - Narrative (Details) - Series of Individually Immaterial Business Acquisitions \$ in Thousands 1 Months Ended 9 Months Ended Jul. 31, 2024 USD (\$) acquisition USD (\$) Business Acquisition [Line Items] A A Number of businesses acquired | acquisition 2 A Total consideration \$ 7,500 A Purchase price 7,100 A Payments to acquire businesses 6,600 A Current liability 500 A Contingent consideration \$ 400 A Continued service period (in years) 1 year A Acquisition costs \$ 736 Goodwill recognized is expected to be deductible for income tax \$ 3,600 A X - DefinitionLine items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479907/805-20-50-5 + Details Name: us-gaap BusinessAcquisitionLineItems Namespace Prefix: us-gaap Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionThe amount of goodwill arising from a business combination that is expected to be deductible for tax purposes. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 805 -SubTopic 30 -Section 50 -Paragraph 1 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479581/805-30-50-1 + Details Name: us-gaap BusinessAcquisitionPurchasePriceAllocationGoodwillExpectedTaxDeductibleAmount Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionThis element represents acquisition-related costs incurred to effect a business combination which costs have been expensed during the period. Such costs include finder's fees; advisory, legal, accounting, valuation, and other professional or consulting fees; general administrative costs, including the costs of maintaining an internal acquisitions department; and may include costs of registering and issuing debt and equity securities. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 805 -SubTopic 10 -Section 25 -Paragraph 23 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479405/805-10-25-23 + Details Name: us-gaap BusinessCombinationAcquisitionRelatedCosts Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount of consideration transferred, consisting of acquisition-date fair value of assets transferred by the acquirer, liabilities incurred by the acquirer, and equity interest issued by the acquirer. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 30 -Paragraph 8 -SubTopic 30 -Topic 805 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479637/805-30-30-8Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (b) -SubTopic 30 -Topic 805 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479581/805-30-50-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 30 -Paragraph 7 -SubTopic 30 -Topic 805 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479637/805-30-30-7 + Details Name: us-gaap BusinessCombinationConsiderationTransferred1 Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount of asset recognized arising from contingent consideration in a business combination, expected to be realized within one year or the normal operating cycle, if longer. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 805 -SubTopic 30 -Name Accounting Standards Codification -Section 35 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479613/805-30-35-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 805 -SubTopic 30 -Section 25 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479668/805-30-25-7 + Details Name: us-gaap BusinessCombinationContingentConsiderationAssetCurrent Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of liability recognized arising from contingent consideration in a business combination, expected to be settled within one year or the normal operating cycle, if longer. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 805 -SubTopic 30 -Name Accounting Standards Codification -Section 35 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479613/805-30-35-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 805 -SubTopic 30 -Section 25 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479668/805-30-25-6 + Details Name: us-gaap BusinessCombinationContingentConsiderationLiabilityCurrent Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount recognized for assets, including goodwill, in excess of (less than) the aggregate liabilities assumed. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 805 -SubTopic 20 -Section 50 -Paragraph 1 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479907/805-20-50-1 + Details Name: us-gaap BusinessCombinationRecognizedIdentifiableAssetsAcquiredGoodwillAndLiabilitiesAssumedNet Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionMinimum period the individual is required to perform services to be fully vested under the deferred compensation arrangement, in 'PnYmMndTnHmMns' format, for example, 'P1Y5M13D' represents the reported fact of one year, five months, and thirteen days. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 710 -SubTopic 10 -Section 55 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482943/710-10-55-7Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 10 -Section 50 -Paragraph 2 -Subparagraph (a)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap DeferredCompensationArrangementWithIndividualRequisiteServicePeriod1 Namespace Prefix: us-gaap Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionThe number of businesses acquired by the entity during the period. + ReferencesNo definition available. + Details Name: us-gaap NumberOfBusinessesAcquired Namespace Prefix: us-gaap Data Type: xbrli:integerItemType Balance Type: na Period Type: duration X - DefinitionThe cash outflow associated with the acquisition of business during the period. The cash portion only of the acquisition price. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 30 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (b)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479581/805-30-50-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 45 -Paragraph 13 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-13 + Details Name: us-gaap PaymentsToAcquireBusinessesGross Namespace Prefix: us-gaap Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - Details Name: us-gaap BusinessAcquisitionAxis=us-gaap SeriesOfIndividuallyImmaterialBusinessAcquisitionsMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 49 R39.htm IDEA: XBRL DOCUMENT v3.24.3 ACQUISITIONS - Schedule of Recognized Identified Assets Acquired and Liabilities Assumed (Details) - USD (\$) \$ in Thousands Sep. 30, 2024 Jul. 31, 2024 Dec. 31, 2023 Business Acquisition [Line Items] A A Goodwill \$ 10,538 A \$ 4,050 Series of Individually Immaterial Business Acquisitions A A Business Acquisition [Line Items] A A Cash and cash equivalents A \$ 5 A Other current assets acquired A 37 A Intangible assets, net A 1,007 A Goodwill A 6,488 A Other liabilities assumed A (437) A Total purchase price A \$ 7,100 A X - DefinitionLine items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Subparagraph

(a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479907/805-20-50-5 + Details Name: us-gaap\_BusinessAcquisitionLineItems Namespace Prefix: us-gaap\_Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount of currency on hand as well as demand deposits with banks or financial institutions, acquired at the acquisition date. Includes other kinds of accounts that have the general characteristics of demand deposits. Also includes short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 805 -SubTopic 20 -Section 50 -Paragraph 1 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479907/805-20-50-1 + Details Name: us-gaap\_BusinessCombinationRecognizedIdentifiableAssetsAcquiredAndLiabilitiesAssumedCashAndEquivalents Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of other assets expected to be realized or consumed before one year or the normal operating cycle, if longer, acquired at the acquisition date. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 805 -SubTopic 20 -Section 50 -Paragraph 1 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479907/805-20-50-1 + Details Name: us-gaap\_BusinessCombinationRecognizedIdentifiableAssetsAcquiredAndLiabilitiesAssumedCurrentAssetsOther Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionThe amount of identifiable intangible assets recognized as of the acquisition date. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 805 -SubTopic 10 -Section 55 -Paragraph 37 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479303/805-10-55-37Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 805 -SubTopic 20 -Section 50 -Paragraph 1 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479907/805-20-50-1 + Details Name: us-gaap\_BusinessCombinationRecognizedIdentifiableAssetsAcquiredAndLiabilitiesAssumedIntangibles Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of other liabilities due after one year or the normal operating cycle, if longer, assumed at the acquisition date. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 805 -SubTopic 20 -Section 50 -Paragraph 1 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479907/805-20-50-1 + Details Name: us-gaap\_BusinessCombinationRecognizedIdentifiableAssetsAcquiredAndLiabilitiesAssumedNoncurrentLiabilitiesOther Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount recognized for assets, including goodwill, in excess of (less than) the aggregate liabilities assumed. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 805 -SubTopic 20 -Section 50 -Paragraph 1 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479907/805-20-50-1 + Details Name: us-gaap\_BusinessCombinationRecognizedIdentifiableAssetsAcquiredGoodwillAndLiabilitiesAssumedNet Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount, after accumulated impairment loss, of asset representing future economic benefit arising from other asset acquired in business combination or from joint venture formation or both, that is not individually identified and separately recognized. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 49 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-49Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 350 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 24 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482548/350-20-55-24Reference 3: http://www.xbrl.org/2003/role/exampleRef -Topic 820 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 100 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482078/820-10-55-100Reference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(15)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-59-1Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 350 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482598/350-20-45-1Reference 7: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 350 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482573/350-20-50-1Reference 8: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 350 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482573/350-20-50-1Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(10)(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 + Details Name: us-gaap\_Goodwill Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - Details Name: us-gaap\_BusinessAcquisitionAxis=us-gaap\_SeriesOfIndividuallyImmaterialBusinessAcquisitionsMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 50 R40.htm IDEA: XBRL DOCUMENT v3.24.3 REVENUE - Narrative (Details) 3 Months Ended 9 Months Ended Sep. 30, 2024 user revenueSource Sep. 30, 2023 Sep. 30, 2024 user revenueSource Sep. 30, 2023 Disaggregation of Revenue [Line Items] A A A Number of sources of revenue | revenueSource 4 A 4 Number of users | user 6 A 6 Number of hours to make certification decision (less than) 48 hours A 48 hours A Number of days to take exam 21 days A 21 days A Expiration period to take exams (in years) 1 year A 1 year A Apple | Revenue from Contract with Customer Benchmark | Customer Concentration Risk A A A Disaggregation of Revenue [Line Items] A A A Concentration risk (in percent) 61.40% 59.30% 60.50% 58.30% Google | Revenue from Contract with Customer Benchmark | Customer Concentration Risk A A A Disaggregation of Revenue [Line Items] A A A Concentration risk (in percent) 23.10% 24.90% 23.50% 25.70% Stripe | Revenue from Contract with Customer Benchmark | Customer Concentration Risk A A A Disaggregation of Revenue [Line Items] A A A Concentration risk (in percent) 11.40% 12.60% 11.80% 12.10% X - DefinitionContract With Customer, Certification Period Prior To Test Completion + ReferencesNo definition available. + Details Name: duol\_ContractWithCustomerCertificationPeriodPriorToTestCompletion Namespace Prefix: duol\_Data Type: xbrli:durationItemType Balance Type: na Period Type: instant X - DefinitionContract With Customer, Number Of Users Per Subscription + ReferencesNo definition available. + Details Name: duol\_ContractWithCustomerNumberOfUsersPerSubscription Namespace Prefix: duol\_Data Type: xbrli:integerItemType Balance Type: na Period Type: instant X - DefinitionContract With Customer, Threshold Period To Take Exam For Bulk Purchase + ReferencesNo definition available. + Details Name: duol\_ContractWithCustomerThresholdPeriodToTakeExamForBulkPurchase Namespace Prefix: duol\_Data Type: xbrli:durationItemType Balance Type: na Period Type: instant X - DefinitionContract With Customer, Threshold To Take Exam + ReferencesNo definition available. + Details Name: duol\_ContractWithCustomerThresholdToTakeExam Namespace Prefix: duol\_Data Type: xbrli:durationItemType Balance Type: na Period Type: instant X - DefinitionNumber Of Sources Of Revenue + ReferencesNo definition available. + Details Name: duol\_NumberOfSourcesOfRevenue Namespace Prefix: duol\_Data Type: xbrli:integerItemType Balance Type: na Period Type: instant X - DefinitionFor an entity that discloses a concentration risk in relation to quantitative amount, which serves as the "benchmark" (or denominator) in the equation, this concept represents the concentration percentage derived from the division. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 42 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-42Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 825 -SubTopic 10 -Section 50 -Paragraph 21 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-21Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 825 -SubTopic 10 -Section 50 -Paragraph 20 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-20Reference 4: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 275 -SubTopic 10 -Section 50 -Paragraph 18 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-18Reference 5: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 275 -SubTopic 10 -Section 50 -Paragraph 20 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-20 + Details Name: us-gaap\_ConcentrationRiskPercentage1 Namespace Prefix: us-gaap\_Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionLine items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-5Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 3: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 5: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 6: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (e) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 7: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 8: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91 + Details Name: us-gaap\_DisaggregationOfRevenueLineItems Namespace Prefix: us-gaap\_Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - Details Name: srt\_MajorCustomersAxis=duol\_AppleMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap\_ConcentrationRiskByBenchmarkAxis=us-gaap\_RevenueFromContractWithCustomerMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap\_ConcentrationRiskByTypeAxis=us-gaap\_CustomerConcentrationRiskMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt\_MajorCustomersAxis=duol\_GoogleMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt\_MajorCustomersAxis=duol\_StripMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 51 R41.htm IDEA: XBRL DOCUMENT v3.24.3 REVENUE - Schedule of Disaggregation of Revenue (Details) - USD (\$) in Thousands 3 Months Ended 9 Months Ended Sep. 30, 2024 Sep. 30, 2023 Sep. 30, 2024 Sep. 30, 2023 Disaggregation of Revenue [Line Items] A A A Revenue from contract with customer, excluding assessed tax \$ 192,594 \$ 137,624 \$ 538,474 \$ 380,124 Subscription A A A Disaggregation of Revenue [Line Items] A A A Revenue from contract with customer, excluding assessed tax 157,617 105,887 433,214 287,230 Other A A A Disaggregation of Revenue [Line Items] A A A Revenue from contract with customer, excluding assessed tax 34,977 31,737 105,260 92,894 Advertising A A A Disaggregation of Revenue [Line Items] A A A Revenue from contract with customer, excluding assessed tax 14,405 11,678 40,615 36,374 Duolingo English Test A A A Disaggregation of Revenue [Line Items] A A A Revenue from contract with customer, excluding assessed tax 10,772 10,612 34,225 30,393 In-App Purchases A A A Disaggregation of Revenue [Line Items] A A A Revenue from contract with customer, excluding assessed tax 9,411 9,233 29,511 25,760 Other A A A Disaggregation of Revenue [Line Items] A A A Revenue from contract with customer, excluding assessed tax \$ 389 \$ 214 \$ 909 \$ 367 X - DefinitionLine items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-5Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 3: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 5: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 6: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (e) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 7: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 8: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91 + Details Name: us-gaap\_DisaggregationOfRevenueLineItems Namespace Prefix: us-gaap\_Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount, excluding tax collected from customer, of revenue from satisfaction of performance obligation by transferring promised good or service to customer. Tax collected from customer is tax assessed by governmental authority that is both imposed on and concurrent with specific revenue-producing transaction, including, but not limited to, sales, use, value added and excise. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 41 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-41Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 4: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 5: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 924 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 11.L) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479941/924-10-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-5Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 42 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-42Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 40 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-40Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-4 + Details Name: us-gaap\_RevenueFromContractWithCustomerExcludingAssessedTax Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - Details Name: srt\_ProductOrServiceAxis=us-gaap\_ProductAndServiceOtherMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt\_ProductOrServiceAxis=us-gaap\_AdvertisingMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt\_ProductOrServiceAxis=duol\_EnglishTestMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt\_ProductOrServiceAxis=duol\_InAppPurchasesMember Namespace Prefix: Data Type: na Balance Type: Period





https://asc.fasb.org/1943274/2147479041/842-20-45-2 + Details Name: us-gaap OperatingLeaseLiabilityCurrentStatementOfFinancialPositionExtensibleList Namespace Prefix: us-gaap\_Data Type: enum2:enumerationSetItem Type Balance Type: na Period Type: instant X - DefinitionPresent value of lessee's discounted obligation for lease payments from operating lease, classified as noncurrent. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1 + Details Name: us-gaap OperatingLeaseLiabilityNoncurrent Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: instant X - DefinitionAmount of cash restricted as to withdrawal or usage, classified as noncurrent. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(17)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-2 -S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 45 -Paragraph 5 -SubTopic 210 -Topic 954 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477220/954-210-45-5Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-2 + Details Name: us-gaap RestrictedCashNoncurrent Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: debit Period Type: instant X - Details Name: srt\_StatementGeographicalAxis=duol\_NewYorkNewYorkMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt\_StatementGeographicalAxis=duol\_SeattleWashingtonMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt\_StatementGeographicalAxis=duol\_PittsburghPennsylvaniaMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt\_StatementGeographicalAxis=duol\_BeijingChinaMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt\_StatementScenarioAxis=srt\_ScenarioForecastMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 61 R51.htm IDEA: XBRL DOCUMENT v3.24.3 LEASES - Schedule of Components of Lease Cost (Details) - USD (\$) in Thousands 3 Months Ended Sep. 30, 2024 Sep. 30, 2023 Sep. 30, 2022 Sep. 30, 2021 Sep. 30, 2020 Leases [Abstract] A A A Operating lease cost \$ 2,155 \$ 1,858 \$ 7,851 \$ 5,759 Short term lease cost 12 9 34 31 Variable lease cost 100 111 352 271 Total lease cost 2,267 1,978 8,237 5,881 Cash paid for amounts included in the measurement of lease liabilities 982 2,139 4,627 5,586 Right-of-use assets obtained in exchange for new operating lease liabilities 0 0 33,039 0 Right of use assets disposed or adjusted, modifying operating lease liabilities 0 0 1,303 1,397 Gain from termination of leases \$ 0 \$ 0 \$ 8 \$ 0 Weighted-average remaining lease term 9 years 9 years 9 years 9 years Weighted-average discount rate 7.14% 6.73% 7.14% 6.73% X - DefinitionRight-of-Use Asset , Increase (Decrease) From Modifications, Net, Operating Lease Liabilities + ReferencesNo definition available. + Details Name: duol\_RightOfUseAssetIncreaseDecreaseFromModificationsNetOperatingLeaseLiabilities Namespace Prefix: duol\_Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: duration X - DefinitionAmount of gain (loss) on termination of lease before expiration of lease term. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 40 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-40-1 + Details Name: us-gaap GainLossOnTerminationOfLease Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: duration X - DefinitionAmount of lease cost recognized by lessee for lease contract. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 53 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479589/842-20-55-53Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4 + Details Name: us-gaap LeaseCost Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: debit Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap LeasesAbstract Namespace Prefix: us-gaap\_Data Type: xbrli:stringItem Type Balance Type: na Period Type: duration X - DefinitionAmount of single lease cost, calculated by allocation of remaining cost of lease over remaining lease term. Includes, but is not limited to, single lease cost, after impairment of right-of-use asset, calculated by amortization of remaining right-of-use asset and accretion of lease liability. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 53 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479589/842-20-55-53Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4 + Details Name: us-gaap OperatingLeaseCost Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: debit Period Type: duration X - DefinitionAmount of cash outflow from operating lease, excluding payments to bring another asset to condition and location necessary for its intended use. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 5 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-5Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (g)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4 + Details Name: us-gaap OperatingLeasePayments Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: duration X - DefinitionWeighted average discount rate for operating lease calculated at point in time. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 53 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479589/842-20-55-53Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (g)(4) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4 + Details Name: us-gaap OperatingLeaseWeightedAverageDiscountRatePercent Namespace Prefix: us-gaap\_Data Type: dtr:types:percentItem Type Balance Type: na Period Type: instant X - DefinitionWeighted average remaining lease term for operating lease, in 'PnYnMnDnTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 53 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479589/842-20-55-53Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (g)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4 + Details Name: us-gaap OperatingLeaseWeightedAverageRemainingLeaseTerm1 Namespace Prefix: us-gaap\_Data Type: xbrli:durationItem Type Balance Type: na Period Type: instant X - DefinitionAmount of increase in right-of-use asset obtained in exchange for operating lease liability. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 53 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479589/842-20-55-53Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (g)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4 + Details Name: us-gaap RightOfUseAssetObtainedInExchangeForOperatingLeaseLiability Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: debit Period Type: duration X - DefinitionAmount of short-term lease cost, excluding expense for lease with term of one month or less. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 53 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479589/842-20-55-53Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4 + Details Name: us-gaap ShortTermLeaseCost Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: debit Period Type: duration X - DefinitionAmount of variable lease cost, excluded from lease liability, recognized when obligation for payment is incurred for finance and operating leases. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 53 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479589/842-20-55-53Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6 + Details Name: us-gaap LesseeOperatingLeaseLiabilityPaymentsDueNextTwelveMonths Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: instant X - DefinitionAmount of lessee's undiscounted obligation for lease payment for operating lease. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6 + Details Name: us-gaap LesseeOperatingLeaseLiabilityPaymentsDueNextTwelveMonths Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: instant X - DefinitionAmount of lessee's undiscounted obligation for lease payment for operating lease to be paid in next fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach). + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6 + Details Name: us-gaap LesseeOperatingLeaseLiabilityPaymentsDueYearFour Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: instant X - DefinitionAmount of lessee's undiscounted obligation for lease payment for operating lease to be paid in third fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach). + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6 + Details Name: us-gaap LesseeOperatingLeaseLiabilityPaymentsDueYearThree Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: instant X - DefinitionAmount of lessee's undiscounted obligation for lease payment for operating lease to be paid in second fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach). + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6 + Details Name: us-gaap LesseeOperatingLeaseLiabilityPaymentsDueYearTwo Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: instant X - DefinitionAmount of lessee's undiscounted obligation for lease payment for operating lease having initial or remaining lease term in excess of one year to be paid in remainder of current fiscal year. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6 + Details Name: us-gaap LesseeOperatingLeaseLiabilityPaymentsRemainderOfFiscalYear Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: instant X - DefinitionAmount of lease payments for operating lease. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6 + Details Name: us-gaap LesseeOperatingLeaseLiabilityUndiscountedExcessAmount Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: instant X - DefinitionPresent value of lessee's discounted obligation for lease payments from operating lease. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1 + Details Name: us-gaap OperatingLeaseLiability Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: instant X - Details Name: XBRL DOCUMENT v3.24.3 INCOME TAXES (Details) - USD (\$) in Thousands 3 Months Ended Sep. 30, 2024 Sep. 30, 2023 Sep. 30, 2022 Sep. 30, 2021 Sep. 30, 2020 Income Tax Disclosure [Abstract] A A A Income before income taxes \$ 25,389 \$ 2,932 \$ 79,954 \$ 2,644 Provision (benefit) for income taxes \$ 2,029 \$ 125 \$ 5,287 \$ (1,306) Effective tax rate 8.00% 4.30% 6.60% (49.40%) X - DefinitionPercentage of current income tax expense (benefit) and deferred income tax expense (benefit) pertaining to continuing operations. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/21474782685/740-10-50-12Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 231 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482663/740-10-55-231 + Details Name: us-gaap EffectiveIncomeTaxRateContinuingOperations Namespace Prefix: us-gaap\_Data Type: dtr:types:percentItem Type Balance Type: na Period Type: duration X - DefinitionAmount of income (loss) from continuing operations, including income (loss) from equity method investments, before deduction of income tax expense (benefit), and income (loss) attributable to noncontrolling interest. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 5: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 6: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 7: http://asc.fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(11)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 9: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 31 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-31Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 235 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (S 210.9-05(b)(2)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477314/942-235-S99-1Reference 11: http://asc.fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(10)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 12: http://asc.fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(15)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1 + Details Name: us-gaap IncomeLossFromContinuingOperationsBeforeIncomeTaxesExtraordinaryItemsNoncontrollingInterest Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: credit Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap IncomeTaxDisclosureAbstract Namespace Prefix: us-gaap\_Data Type: xbrli:stringItem Type Balance Type:



SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(iii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 27: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(iv) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 28: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(v) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardLineItems Namespace Prefix: us-gaap\_Data Type: xbrli:stringItem Type Balance Type: na Period Type: duration X - DefinitionNumber of additional shares authorized for issuance under share-based payment arrangement. + ReferencesNo definition available. + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardNumberOfAdditionalSharesAuthorized Namespace Prefix: us-gaap\_Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionThe difference between the maximum number of shares (or other type of equity) authorized for issuance under the plan (including the effects of amendments and adjustments), and the sum of: 1) the number of shares (or other type of equity) already issued upon exercise of options or other equity-based awards under the plan; and 2) shares (or other type of equity) reserved for issuance on granting of outstanding awards, net of cancellations and forfeitures, if applicable. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 10 -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardNumberOfSharesAvailableForGrant Namespace Prefix: us-gaap\_Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionAmount of accumulated difference between fair value of underlying shares on dates of exercise and exercise price on options exercised (or share units converted) into shares. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (d)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsExercisesInPeriodTotalIntrinsicValue Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: debit Period Type: duration X - DefinitionGross number of share options (or share units) granted during the period. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(01) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsGrantsInPeriodGross Namespace Prefix: us-gaap\_Data Type: xbrli:sharesItem Type Balance Type: na Period Type: duration X - DefinitionThe weighted average grant-date fair value of options granted during the reporting period as calculated by applying the disclosed option pricing methodology. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (d)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsGrantsInPeriodWeightedAverageGrantDateFairValue Namespace Prefix: us-gaap\_Data Type: dtr-types:perShareItem Type Balance Type: na Period Type: duration X - DefinitionMaximum number of shares that may be issued in accordance with the plan as a proportion of outstanding capital stock. + ReferencesNo definition available. + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardPercentageOfOutstandingStockMaximum Namespace Prefix: us-gaap\_Data Type: dtr-types:percentItem Type Balance Type: na Period Type: duration X - DefinitionPercentage of vesting of award under share-based payment arrangement. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardVestingRightsPercentage Namespace Prefix: us-gaap\_Data Type: dtr-types:percentItem Type Balance Type: na Period Type: duration X - DefinitionPeriod from grant date that an equity-based award expires, in 'PnYnMnDtnHnMns' format, for example, 'P1Y5M13D' represents the reported fact of one year, five months, and thirteen days. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardExpirationPeriod Namespace Prefix: us-gaap\_Data Type: xbrli:durationItem Type Balance Type: na Period Type: duration X - Details Name: us-gaap\_AwardTypeAxis=us-gaap\_EmployeeStockOptionMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap\_AwardTypeAxis=us-gaap\_RestrictedStockUnitsRSUMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap\_AwardTypeAxis=us-gaap\_PerformanceSharesMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt\_RangeAxis=srt\_MinimumMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt\_RangeAxis=srt\_MaximumMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt\_TitleOfIndividualAxis=duol\_FoundersMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap\_GranteeStatusAxis=duol\_ShareBasedPaymentArrangementFoundersMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap\_PlanNameAxis=duol\_A2021IncentiveAwardPlanMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap\_StatementClassOfStockAxis=us-gaap\_CommonClassAMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap\_PlanNameAxis=duol\_EmployeeStockPurchasePlanMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap\_PlanNameAxis=duol\_A2011EquityIncentivePlanMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 65 R55.htm IDEA: XBRL DOCUMENT v3.24.3 STOCK-BASED COMPENSATION - Schedule of Stock Option Activity (Details) - USD (\$) / shares in Units, \$ in Thousands 3 Months Ended 9 Months Ended 12 Months Ended Sep. 30, 2024 Sep. 30, 2024 Dec. 31, 2023 Number of options A A Options outstanding, beginning balance (in shares) A 2,985,000 A Granted (in shares) 0 0 A Exercised (in shares) A (802,000) A Forfeited and expired (in shares) A 0 A Options outstanding, ending balance (in shares) 2,183,000 2,183,000 2,985,000 Number of options exercisable (in shares) 2,180,000 2,180,000 A Weighted-average exercise price A A Outstanding, beginning balance (in usd per share) A \$ 16.04 A Granted (in usd per share) A A Exercised (in usd per share) A 14.45 A Forfeited and expired (in usd per share) A 20.75 A Outstanding, ending balance (in usd per share) A 16.62 16.62 16.04 Weighted average exercise price, options exercisable (in usd per share) \$ 16.52 \$ 16.52 A Share-based Compensation Arrangement by Share-based Payment Award, Options, Additional Disclosures [Abstract] A A Weighted average remaining contractual term (in years), outstanding A 4 years 10 months 24 days 5 years 7 months 6 days Weighted average remaining contractual term (in years), exercisable A 4 years 10 months 24 days A Aggregate intrinsic value, outstanding \$ 579,895 \$ 579,895 \$ 629,865 Aggregate intrinsic value, exercisable \$ 578,771 \$ 578,771 X - ReferencesNo definition available. + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsAdditionalDisclosuresAbstract Namespace Prefix: us-gaap\_Data Type: xbrli:stringItem Type Balance Type: na Period Type: duration X - DefinitionThe number of shares into which fully or partially vested stock options outstanding as of the balance sheet date can be currently converted under the option plan. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsExercisableNumber Namespace Prefix: us-gaap\_Data Type: xbrli:sharesItem Type Balance Type: na Period Type: instant X - DefinitionThe weighted-average price as of the balance sheet date at which grantees can acquire the shares reserved for issuance on vested portions of options outstanding and currently exercisable under the stock option plan. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsExercisableWeightedAverageExercisePrice Namespace Prefix: us-gaap\_Data Type: dtr-types:perShareItem Type Balance Type: na Period Type: instant X - DefinitionFor presentations that combine terminations, the number of shares under options that were cancelled during the reporting period as a result of occurrence of a terminating event specified in contractual agreements pertaining to the stock option plan or that expired. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsForfeituresAndExpirationsInPeriod Namespace Prefix: us-gaap\_Data Type: xbrli:sharesItem Type Balance Type: na Period Type: duration X - DefinitionWeighted average price of options that were either forfeited or expired. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsForfeituresAndExpirationsInPeriodWeightedAverageExercisePrice Namespace Prefix: us-gaap\_Data Type: dtr-types:perShareItem Type Balance Type: na Period Type: duration X - DefinitionGross number of share options (or share units) granted during the period. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(01) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsGrantsInPeriodGross Namespace Prefix: us-gaap\_Data Type: xbrli:sharesItem Type Balance Type: na Period Type: duration X - DefinitionAmount by which the current fair value of the underlying stock exceeds the exercise price of options outstanding. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 10 -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingIntrinsicValue Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: debit Period Type: instant X - DefinitionNumber of options outstanding, including both vested and non-vested options. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingNumber Namespace Prefix: us-gaap\_Data Type: xbrli:sharesItem Type Balance Type: na Period Type: instant X - DefinitionA roll forward is a reconciliation of a concept from the beginning of a period to the end of a period. + ReferencesNo definition available. + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingRollForward Namespace Prefix: us-gaap\_Data Type: xbrli:stringItem Type Balance Type: na Period Type: duration X - DefinitionWeighted average price at which grantees can acquire the shares reserved for issuance under the stock option plan. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingWeightedAverageExercisePrice Namespace Prefix: us-gaap\_Data Type: dtr-types:perShareItem Type Balance Type: na Period Type: instant X - ReferencesNo definition available. + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingWeightedAverageExercisePriceRollforward Namespace Prefix: us-gaap\_Data Type: xbrli:stringItem Type Balance Type: na Period Type: duration X - DefinitionWeighted average price at which option holders acquire shares when converting their stock options into shares. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(02) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementsByShareBasedPaymentAwardOptionsExercisesInPeriodWeightedAverageExercisePrice Namespace Prefix: us-gaap\_Data Type: dtr-types:perShareItem Type Balance Type: na Period Type: duration X - DefinitionWeighted average per share amount at which grantees can acquire shares of common stock by exercise of options. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(01) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementsByShareBasedPaymentAwardOptionsGrantsInPeriodWeightedAverageExercisePrice Namespace Prefix: us-gaap\_Data Type: dtr-types:perShareItem Type Balance Type: na Period Type: duration X - DefinitionAmount of difference between fair value of the underlying shares reserved for issuance and exercise price of vested portions of options outstanding and currently exercisable. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 10 -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsExercisableIntrinsicValue1 Namespace Prefix: us-gaap\_Data Type: xbrli:monetaryItem Type Balance Type: debit Period Type: instant X - DefinitionWeighted average remaining contractual term for vested portions of options outstanding and currently exercisable or convertible, in 'PnYnMnDtnHnMns' format, for example, 'P1Y5M13D' represents the reported fact of one year, five months, and thirteen days. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 10 -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingWeightedAverageRemainingContractualTerm1 Namespace Prefix: us-gaap\_Data Type: xbrli:durationItem Type Balance Type: na Period Type: duration X - DefinitionNumber of share options (or share units) exercised during the current period. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -SubTopic 10 -Topic 505 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(02) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 5: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1 + Details Name: us-gaap\_StockIssuedDuringPeriodSharesStockOptionsExercised Namespace Prefix: us-gaap\_Data Type: xbrli:sharesItem Type Balance Type: na Period Type: duration XML 66 R56.htm IDEA: XBRL DOCUMENT v3.24.3 STOCK-BASED COMPENSATION - Schedule of Restricted Stock Unit Activity (Details) - Restricted Stock Units (RSUs) - \$ / shares in Thousands 9 Months Ended Sep. 30, 2024 Dec. 31, 2023 Restricted stock units A A Beginning balance (in shares) 1,938 2,027 Granted (in shares) 635 A Released (in shares) (616) A Forfeited (in shares) (108) A Ending balance (in shares) 1,938 A Weighted-average grant date fair value per share A A Beginning balance (in usd per share) \$ 106.32 A Granted (in usd per share) 177.36 A Released (in usd per share) 101.02 A Forfeited (in usd per share) 115.32 A Ending balance (in usd per share) \$ 130.77 A X - ReferencesNo definition available. + Details Name: us-

gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsAdditionalDisclosuresAbstract Namespace Prefix: us-gaap Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionThe number of equity-based payment instruments, excluding stock (or unit) options, that were forfeited during the reporting period. + ReferencesReference 1:























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Examples include taxes, interest, rent and utilities. 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Such costs include finder's fees; advisory, legal, accounting, valuation, and other professional or consulting fees; general administrative costs, including the costs of maintaining an internal acquisitions department; and may include costs of registering and issuing debt and equity securities." } } } } , "auth\_ref": [ "r51" ] } } , "us-gaap BusinessCombinationAndAssetAcquisitionAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "BusinessCombinationAndAssetAcquisitionAbstract", "lang": { "en-us": { "role": { "label": "Business Combination, Asset Acquisition, and Joint Venture Formation [Abstract]" } } } } } , "auth\_ref": [ ] } } , "us-gaap BusinessCombinationConsiderationTransferred1": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "BusinessCombinationConsiderationTransferred1", "crdr": "credit", "presentation": [ "http://duolingo.com/role/ACQUISITIONSNarrativeDetails" ] } } } , "en-us": { "role": { "terseLabel": "Total consideration", "label": "Business Combination, Consideration Transferred", "documentation": "Amount of consideration transferred, consisting of acquisition-date fair value of assets transferred by the acquirer, liabilities incurred by the acquirer, and equity interest issued by the acquirer." } } } } , "auth\_ref": [ "r3", "r4", "r12" ] } } , "us-gaap BusinessCombinationContingentConsiderationAssetCurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "BusinessCombinationContingentConsiderationAssetCurrent", "crdr": "debit", "presentation": [ "http://duolingo.com/role/ACQUISITIONSNarrativeDetails" ] } } } , "en-us": { "role": { "terseLabel": "Contingent consideration", "label": "Business Combination, Contingent Consideration, Asset, Current", "documentation": "Amount of asset recognized arising from contingent consideration in a business combination, expected to be realized within one year or the normal operating cycle, if longer." } } } } , "auth\_ref": [ "r57", "r107" ] } } , "us-gaap BusinessCombinationContingentConsiderationLiabilityCurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "BusinessCombinationContingentConsiderationLiabilityCurrent", "crdr": "credit", "presentation": [ "http://duolingo.com/role/ACQUISITIONSNarrativeDetails" ] } } } , "en-us": { "role": { "terseLabel": "Current liability", "label": "Business Combination, Contingent Consideration, Liability, Current", "documentation": "Amount of liability recognized arising from contingent consideration in a business combination, expected to be settled within one year or the normal operating cycle, if longer." } } } } , "auth\_ref": [ "r56", "r107" ] } } , "us-gaap BusinessCombinationDisclosureTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "BusinessCombinationDisclosureTextBlock", "presentation": [ "http://duolingo.com/role/ACQUISITIONSNarrativeDetails" ] } } } , "en-us": { "role": { "terseLabel": "ACQUISITIONS", "label": "Business Combination Disclosure [Text Block]", "documentation": "The entire disclosure for a business combination (or series of individually immaterial business combinations) completed during the period, including background, timing, and recognized assets and liabilities. 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Includes other kinds of accounts that have the general characteristics of demand deposits. Also includes short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates." } } } } , "auth\_ref": [ "r55" ] } } , "us-gaap BusinessCombinationRecognizedIdentifiableAssetsAcquiredAndLiabilitiesAssumedCurrentAssetsOther": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "BusinessCombinationRecognizedIdentifiableAssetsAcquiredAndLiabilitiesAssumedCurrentAssetsOther", "crdr": "debit", "calculation": { "http://duolingo.com/role/ACQUISITIONSNarrativeDetails": { "parentTag": "us-gaap BusinessCombinationRecognizedIdentifiableAssetsAcquiredAndLiabilitiesAssumedNet", "weight": 1.0, "order": 1.0 } } } } , "presentation": [ "http://duolingo.com/role/ACQUISITIONSNarrativeDetails" ] } } } , "en-us": { "role": { "terseLabel": "Other current assets acquired", "label": "Business Combination, Recognized Identifiable Assets Acquired and Liabilities Assumed, Current Assets, Other", "documentation": "Amount of other assets expected to be realized or consumed before one year or the normal operating cycle, if longer, acquired at the acquisition date." } } } } , "auth\_ref": [ "r55" ] } } , "us-

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Business description describes the nature and type of organization including but not limited to organizational structure as may be applicable to holding companies, parent and subsidiary relationships, business divisions, business units, business segments, affiliates and information about significant ownership of the reporting entity. Basis of presentation describes the underlying basis used to prepare the financial statements (for example, US Generally Accepted Accounting Principles, Other Comprehensive Basis of Accounting, IFRS)."} } }, "auth\_ref": [ "r65", "r93", "r94" ] }, "us-gaap\_CapitalExpendituresIncurredButNotYetPaid: { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CapitalExpendituresIncurredButNotYetPaid", "crdr": "credit", "presentation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOFCASHFLOWS" ], "lang": { "en-us": { "role": { "terseLabel": "Property and equipment included in Current liabilities", "label": "Capital Expenditures Incurred but Not yet Paid", "documentation": "Future cash outflow to pay for purchases of fixed assets that have occurred." } } }, "auth\_ref": [ "r25", "r26", "r27" ] }, "us-gaap\_CapitalizedComputerSoftwareAdditions: { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CapitalizedComputerSoftwareAdditions", "crdr": "debit", "presentation": [ "http://duolingo.com/role/INTANGIBLEASSETSANDGOODWILLNarrativeDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Capitalized software development costs", "label": "Capitalized Computer Software, Additions", "documentation": "Additions made to capitalized computer software costs during the period." } } }, "auth\_ref": [ "r730" ] }, "us-gaap\_CapitalizedComputerSoftwareAmortization: { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CapitalizedComputerSoftwareAmortization", "crdr": "debit", "presentation": [ "http://duolingo.com/role/INTANGIBLEASSETSANDGOODWILLScheduleofIntangibleAssetsAmortizationExpenseDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Amortization of capitalized computer software", "label": "Capitalized Computer Software, Amortization", "documentation": "Amount of expense for amortization of capitalized computer software costs." } } }, "auth\_ref": [ "r729", "r730" ] }, "us-gaap\_CapitalizedContractCostNetCurrent: { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CapitalizedContractCostNetCurrent", "crdr": "debit", "calculation": { "parentTag": "us-gaap\_AssetsCurrent", "weight": 1.0, "order": 2.0 } }, "presentation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDBALANCESHEETS" ], "lang": { "en-us": { "role": { "terseLabel": "Deferred cost of revenues", "label": "Capitalized Contract Cost, Net, Current", "documentation": "Amount, after accumulated amortization and accumulated impairment loss, of asset recognized from cost incurred to obtain or fulfill contract with customer, classified as current." } } }, "auth\_ref": [ "r278" ] }, "us-gaap\_Cash: { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "Cash", "crdr": "debit", "calculation": { "parentTag": "us-gaap\_AssetsFairValueDisclosure", "weight": 1.0, "order": 4.0 } }, "presentation": [ "http://duolingo.com/role/FAIRVALUEScheduleofNetUnrealizedGainsLossesandFairValuebyMajorSecurityTypeforOurInvestmentsDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Cash", "label": "Cash", "documentation": "Amount of currency on hand as well as demand deposits with banks or financial institutions. 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Excludes cash and cash equivalents within disposal group and discontinued operation." } } }, "auth\_ref": [ "r124", "r579", "r634", "r657", "r780", "r809", "r908" ] }, "us-gaap\_CashAcquiredFromAcquisition: { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashAcquiredFromAcquisition", "crdr": "debit", "presentation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOFCASHFLOWSParentInformation", "lang": { "en-us": { "role": { "terseLabel": "Cash acquired during acquisition", "label": "Cash Acquired from Acquisition", "documentation": "The cash inflow associated with the acquisition of business during the period (for example, cash that was held by the acquired business)."} } }, "auth\_ref": [ "r20" ] }, "us-gaap\_CashAndCashEquivalentsAtCarryingValue: { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashAndCashEquivalentsAtCarryingValue", "crdr": "debit", "calculation": { "parentTag": "us-gaap\_AssetsCurrent", "weight": 1.0, "order": 3.0 } }, "presentation": [ "http://duolingo.com/role/FAIRVALUEScheduleofNetUnrealizedGainsLossesandFairValuebyMajorSecurityTypeforOurInvestmentsDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Cash and Cash Equivalents", "label": "Cash and Cash Equivalents", "documentation": "Amount of currency on hand as well as demand deposits with banks or financial institutions. Includes other kinds of accounts that have the general characteristics of demand deposits. Also includes short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. Excludes cash and cash equivalents within disposal group and discontinued operation." } } }, "auth\_ref": [ "r22", "r142", "r736" ] }, "us-gaap\_CashAndCashEquivalentsAxis: { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashAndCashEquivalentsAxis", "presentation": [ "http://duolingo.com/role/FAIRVALUEScheduleofNetUnrealizedGainsLossesandFairValuebyMajorSecurityTypeforOurInvestmentsDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Cash and Cash Equivalents [Axis]", "label": "Cash and Cash Equivalents [Axis]", "documentation": "Information by type of cash and cash equivalent balance." } } }, "auth\_ref": [ "r142" ] }, "us-gaap\_CashAndCashEquivalentsPolicyTextBlock: { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashAndCashEquivalentsPolicyTextBlock", "presentation": [ "http://duolingo.com/role/SUMMARYOFSIGNIFICANTACCOUNTINGPOLICIESPolicies" ], "lang": { "en-us": { "role": { "terseLabel": "Cash and Cash Equivalents", "label": "Cash and Cash Equivalents, Policy [Policy Text Block]", "documentation": "Disclosure of accounting policy for cash and cash equivalents, including the policy for determining which items are treated as cash equivalents. Other information that may be disclosed includes (1) the nature of any restrictions on the entity's use of its cash and cash equivalents, (2) whether the entity's cash and cash equivalents are insured or expose the entity to credit risk, (3) the classification of any negative balance accounts (overdrafts), and (4) the carrying basis of cash equivalents (for example, at cost) and whether the carrying amount of cash equivalents approximates fair value." } } }, "auth\_ref": [ "r23" ] }, "us-gaap\_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalents: { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalents", "crdr": "debit", "presentation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOFCASHFLOWS" ], "lang": { "en-us": { "role": { "periodStartLabel": "Cash, cash equivalents and restricted cash - Beginning of period", "periodEndLabel": "Cash, cash equivalents and restricted cash - End of period", "label": "Cash, Cash Equivalents, Restricted Cash, and Restricted Cash Equivalents", "documentation": "Amount of cash and cash equivalents, and cash and cash equivalents restricted to withdrawal or usage. Excludes amount for disposal group and discontinued operations. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates." } } }, "auth\_ref": [ "r22", "r90" ] }, "us-gaap\_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect: { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect", "crdr": "debit", "calculation": { "parentTag": "us-gaap\_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalents", "weight": null, "order": null, "root": true } }, "presentation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOFCASHFLOWS" ], "lang": { "en-us": { "role": { "totalLabel": "Net increase in cash, cash equivalents and restricted cash", "label": "Cash, Cash Equivalents, Restricted Cash, and Restricted Cash Equivalents, Period Increase (Decrease), Including Exchange Rate Effect", "documentation": "Amount of increase (decrease) in cash, cash equivalents, and cash and cash equivalents restricted to withdrawal or usage, including effect from exchange rate change. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates." } } }, "auth\_ref": [ "r5", "r90" ] }, "us-gaap\_CashEquivalentsAtCarryingValue: { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashEquivalentsAtCarryingValue", "crdr": "debit", "calculation": { "parentTag": "us-gaap\_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalents", "weight": 1.0, "order": 2.0 } }, "presentation": [ "http://duolingo.com/role/FAIRVALUEScheduleofNetUnrealizedGainsLossesandFairValuebyMajorSecurityTypeforOurInvestmentsDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Cash Equivalents", "label": "Cash Equivalents, at Carrying Value", "documentation": "Amount of short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. Excludes cash and cash equivalents within disposal group and discontinued operation." } } }, "auth\_ref": [ "r908", "r1024" ] }, "us-gaap\_CashEquivalentsMember: { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashEquivalentsMember", "presentation": [ "http://duolingo.com/role/FAIRVALUEScheduleofNetUnrealizedGainsLossesandFairValuebyMajorSecurityTypeforOurInvestmentsDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Cash Equivalents", "label": "Cash Equivalents [Member]", "documentation": "Short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates." } } }, "auth\_ref": [ "r142" ] }, "us-gaap\_CashFlowNoncashInvestingAndFinancingActivitiesDisclosureAbstract: { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashFlowNoncashInvestingAndFinancingActivitiesDisclosureAbstract", "presentation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOFCASHFLOWS" ], "lang": { "en-us": { "role": { "terseLabel": "Supplemental disclosure of noncash investing activities", "label": "Cash Flow, Noncash Investing and Financing Activities Disclosure [Abstract]" } } }, "auth\_ref": [ "ecdc\_ChangedPeerGroupFnTextBlock", "http://xbrl.sec.gov/ecdc/2024", "localname": "ChangedPeerGroupFnTextBlock", "presentation": [ "http://xbrl.sec.gov/ecdc/role/PvpDisclosure", "label": "Change in Fair Value as of Vesting Date of Prior Year Equity Awards Vested in Covered Year" ], "lang": { "en-us": { "role": { "terseLabel": "Change in Fair Value as of Vesting Date of Prior Year Equity Awards Vested in Covered Year [Member]" } } }, "auth\_ref": [ "r854" ] }, "ecdc\_ChngInFrValOfOutsdngAndUnvstdEqtyAwrdsGrntdInPrYrMember": { "xbrltype": "domainItemType", "nsuri": "http://xbrl.sec.gov/ecdc/2024", "localname": "ChngInFrValOfOutsdngAndUnvstdEqtyAwrdsGrntdInPrYrMember", "presentation": [ "http://xbrl.sec.gov/ecdc/role/PvpDisclosure" ], "lang": { "en-us": { "role": { "terseLabel": "Year-over-Year Change in Fair Value of Equity Awards Granted in Prior Years That are Outstanding and Unvested", "label": "Year-over-Year Change in Fair Value of Equity Awards Granted in Prior Years That are Outstanding and Unvested [Member]" } } }, "auth\_ref": [ "r852" ] }, "dei\_CityAreaCode": { "xbrltype": "normalizedStringItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "CityAreaCode", "presentation": [ "http://duolingo.com/role/CoverPage" ], "lang": { "en-us": { "role": { "terseLabel": "City Area Code", "label": "City Area Code", "documentation": "Area code of city" } } }, "auth\_ref": [ "duol\_ClassAndClassBCommonStockMember", "http://duolingo.com/role/EARNINGSPEPERSHAREScheduleofEarningsPerShareBasicandDilutedDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Class A and Class B Common Stock", "label": "Class A and Class B Common Stock [Member]", "documentation": "Class A and Class B Common Stock" } } }, "auth\_ref": [ "us-gaap\_ClassOfStockDomain", "http://duolingo.com/role/CoverPage", "http://duolingo.com/role/EARNINGSPEPERSHARENarrativeDetails", "http://duolingo.com/role/EARNINGSPEPERSHAREScheduleofEarningsPerShareBasicandDilutedDetails", "http://duolingo.com/role/STOCKBASEDCOMPENSATIONNarrativeDetails", "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDBALANCESHEETSParentInformation" ], "lang": { "en-us": { "role": { "terseLabel": "Class of Stock [Domain]", "label": "Class of

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ultimately be resolved when one or more future events that are deemed likely to occur do occur or fail to occur." } } } , "auth ref": [ "r72", "r111", "r578", "r648" ] } , "us-gaap CommitmentsAndContingenciesDisclosureAbstract": { "xbrlytype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CommitmentsAndContingenciesDisclosureAbstract", "lang": { "en-us": { "role": { "label": "Commitments and Contingencies Disclosure [Abstract]" } } } , "auth ref": [ ] } , "us-gaap CommitmentsAndContingenciesDisclosureTextBlock": { "xbrlytype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CommitmentsAndContingenciesDisclosureTextBlock", "presentation": [ "http://duolingo.com/role/COMMITMENTSANDCONTINGENCIES" ] , "lang": { "en-us": { "role": { "terseLabel": "COMMITMENTS AND CONTINGENCIES", "label": "Commitments and Contingencies Disclosure [Text Block]" } } } , "documentation": "The entire disclosure for commitments and contingencies." } } } , 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These shares represent capital invested by the firm's shareholders and owners, and may be all or only a portion of the number of shares authorized. Shares issued include shares outstanding and shares held in the treasury." } } } } , "auth ref": [ "r75" ] } , "us-gaap CommonStockSharesOutstanding": { "xbrlytype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CommonStockSharesOutstanding", "presentation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDBALANCESHEETSParentetical" ] , "lang": { "en-us": { "role": { "terseLabel": "Common stock, shares outstanding (in shares)", "label": "Common Stock, Shares Outstanding", "documentation": "Number of shares of common stock outstanding. 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This item includes treasury stock repurchased by the entity. Note: elements for number of nonredeemable common shares, par value and other disclosure concepts are in another section within stockholders' equity." } } } } , "auth ref": [ "r75", "r580", "r780" ] } , "ecd CompActuallyPaidVsCoSelectedMeasureTextBlock": { "xbrlytype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "CompActuallyPaidVsCoSelectedMeasureTextBlock", "presentation": [ "http://xbrl.sec.gov/ecd/role/PvpDisclosure" ] , "lang": { "en-us": { "role": { "terseLabel": "Compensation Actually Paid vs. Company Selected Measure [Text Block]" } } } , "auth ref": [ "r863" ] } , "ecd CompActuallyPaidVsNetIncomeTextBlock": { "xbrlytype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "CompActuallyPaidVsNetIncomeTextBlock", "presentation": [ "http://xbrl.sec.gov/ecd/role/PvpDisclosure" ] , "lang": { "en-us": { "role": { "terseLabel": "Compensation Actually Paid vs. Net Income", "label": "Compensation Actually Paid vs. Net Income [Text Block]" } } } } , "auth ref": [ "r862" ] } , "ecd CompActuallyPaidVsOtherMeasureTextBlock": { "xbrlytype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "CompActuallyPaidVsOtherMeasureTextBlock", "presentation": [ "http://xbrl.sec.gov/ecd/role/PvpDisclosure" ] , "lang": { "en-us": { "role": { "terseLabel": "Compensation Actually Paid vs. Other Measure", "label": "Compensation Actually Paid vs. Other Measure [Text Block]" } } } } , "auth ref": [ "r864" ] } , "ecd CompActuallyPaidVsTotalShareholderRtnTextBlock": { "xbrlytype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "CompActuallyPaidVsTotalShareholderRtnTextBlock", "presentation": [ "http://xbrl.sec.gov/ecd/role/PvpDisclosure" ] , "lang": { "en-us": { "role": { "terseLabel": "Compensation Actually Paid vs. Total Shareholder Return", "label": "Compensation Actually Paid vs. Total Shareholder Return [Text Block]" } } } } , "auth ref": [ "r861" ] } , "us-gaap ComprehensiveIncomeNetOfTax": { "xbrlytype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ComprehensiveIncomeNetOfTax", "crdr": "credit", "calculation": { "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOFPERATIONSANDCOMPREHENSIVEINCOME": { "parentTag": null, "weight": null, "order": null, "root": true } } , "presentation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOFPERATIONSANDCOMPREHENSIVEINCOME" ] , "lang": { "en-us": { "role": { "totalLabel": "Net comprehensive income", "label": "Comprehensive Income (Loss), Net of Tax, Attributable to Parent", "documentation": "Amount after tax of increase (decrease) in equity from transactions and other events and circumstances from net income and other comprehensive income, attributable to parent entity. Excludes changes in equity resulting from investments by owners and distributions to owners." } } } } , "auth ref": [ "r19", "r155", "r157", "r162", "r571", "r589", "r590" ] } , "us-gaap ComputerSoftwareIntangibleAssetMember": { "xbrlytype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ComputerSoftwareIntangibleAssetMember", "presentation": [ "http://duolingo.com/role/INTANGIBLEASSETSANDGOODWILLScheduleOfIntangibleAssetsDetails" ] , "lang": { "en-us": { "role": { "terseLabel": "Capitalized software", "label": "Computer Software, Intangible Asset [Member]" } } } , "documentation": "Collection of computer programs and related data that provide instructions to a computer, for example, but not limited to, application program, control module or operating system, that perform one or more particular functions or tasks." } } } , "auth ref": [ "r730", "r734", "r949", "r950", "r951", "r952", "r954", "r956", "r959", "r960" ] } , "us-gaap ConcentrationRiskBenchmarkDomain": { "xbrlytype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ConcentrationRiskBenchmarkDomain", "presentation": [ "http://duolingo.com/role/REVENUENarrativeDetails", "http://duolingo.com/role/SUMMARYOFSIGNIFICANTACCOUNTINGPOLICIESDetails" ] , "lang": { "en-us": { "role": { "terseLabel": "Concentration Risk Benchmark [Domain]", "label": "Concentration Risk Benchmark [Domain]", "documentation": "The denominator in a calculation of a disclosed concentration risk percentage." } } } } , "auth ref": [ "r32", "r33", "r62", "r63", "r218", "r715" ] } , "us-gaap ConcentrationRiskByBenchmarkAxis": { "xbrlytype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ConcentrationRiskByBenchmarkAxis", "presentation": [ "http://duolingo.com/role/REVENUENarrativeDetails", "http://duolingo.com/role/SUMMARYOFSIGNIFICANTACCOUNTINGPOLICIESDetails" ] , "lang": { "en-us": { "role": { "terseLabel": "Concentration Risk Benchmark [Axis]", "label": "Concentration Risk Benchmark [Axis]", "documentation": "Information by benchmark of concentration risk." } } } } , "auth ref": [ "r32", "r33", "r62", "r63", "r218", "r611", "r715" ] } , "us-gaap ConcentrationRiskByTypeAxis": { "xbrlytype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ConcentrationRiskByTypeAxis", "presentation": [ "http://duolingo.com/role/REVENUENarrativeDetails", "http://duolingo.com/role/SUMMARYOFSIGNIFICANTACCOUNTINGPOLICIESDetails" ] , "lang": { "en-us": { "role": { "terseLabel": "Concentration Risk Type [Axis]", "label": "Concentration Risk Type [Axis]", "documentation": "Information by type of concentration risk, for example, but not limited to, asset, liability, net assets, geographic, customer, employees, supplier, lender." } } } } , "auth ref": [ "r32", "r33", "r62", "r63", "r218", "r715", "r900" ] } , "us-gaap ConcentrationRiskCreditRisk": { "xbrlytype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ConcentrationRiskCreditRisk", "presentation": [ "http://duolingo.com/role/SUMMARYOFSIGNIFICANTACCOUNTINGPOLICIESPolicies" ] , "lang": { "en-us": { "role": { "terseLabel": "Concentration of Credit Risk", "label": "Concentration Risk, Credit Risk, Policy [Policy Text Block]", "documentation": "Disclosure of accounting policy for credit risk." } } } } , "auth ref": [ "r64", "r129" ] } , "us-gaap ConcentrationRiskLineItems": { "xbrlytype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ConcentrationRiskLineItems", "presentation": [ "http://duolingo.com/role/SUMMARYOFSIGNIFICANTACCOUNTINGPOLICIESDetails" ] , "lang": { "en-us": { "role": { "terseLabel": "Concentration Risk [Line Items]", "label": "Concentration Risk [Line Items]", "documentation": "Line items represent financial concepts included in a table. 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The accounting policy may also address the accounting treatment for intercompany accounts and transactions, noncontrolling interest, and the income statement treatment in consolidation for issuances of stock by a subsidiary." } } } } , "auth ref": [ "r59", "r737" ] } , "us-gaap ContractWithCustomerAssetAndLiabilityTableTextBlock": { "xbrlytype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ContractWithCustomerAssetAndLiabilityTableTextBlock", "presentation": [ "http://duolingo.com/role/REVENUETables" ] , "lang": { "en-us": { "role": { "terseLabel": "Schedule of Deferred Revenues", "label": "Contract with Customer, Contract Asset, Contract Liability, and Receivable [Table Text Block]", "documentation": "Tabular disclosure of receivable, contract asset,

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This information should be based on the registrant's current or most recent filing containing the related disclosure." } } }, "auth\_ref": [ "r811" ] }, "dei\_EntityIncorporationStateCountryCode": { "xbrlType": "edgarStateCountryItem", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityIncorporationStateCountryCode", "presentation": [ "http://duolingo.com/role/CoverPage" ], "lang": { "en-us": { "role": { "terseLabel": "Entity Incorporation, State or Country Code", "label": "Entity Incorporation, State or Country Code", "documentation": "Two-character EDGAR code representing the state or country of incorporation." } } }, "auth\_ref": [ ] }, "dei\_EntityInteractiveDataCurrent": { "xbrlType": "yesNoItem", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityInteractiveDataCurrent", "presentation": [ "http://duolingo.com/role/CoverPage" ], "lang": { "en-us": { "role": { "terseLabel": "Entity Interactive Data Current", "label": "Entity Interactive Data Current", 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Such disclosures about the financial instruments, assets, and liabilities would include: (1) the fair value of the required items together with their carrying amounts (as appropriate); (2) for items for which it is not practicable to estimate fair value, disclosure would include: (a) information pertinent to estimating fair value (including, carrying amount, effective interest rate, and maturity, and (b) the reasons why it is not practicable to estimate fair value; (3) significant concentrations of credit risk including: (a) information about the activity, region, or economic characteristics identifying a concentration, (b) the maximum amount of loss the entity is exposed to based on the gross fair value of the related item, (c) policy for requiring collateral or other security and information as to accessing such collateral or security, and (d) the nature and brief description of such collateral or security; (4) quantitative information about market risks and how such risks are managed; (5) for items measured on both a recurring and nonrecurring basis information regarding the inputs used to develop the fair value measurement, and (6) for items presented in the financial statement for which fair value measurement is elected: (a) information necessary to understand the reasons for the election, (b) discussion of the effect of fair value changes on earnings, (c) a description of [similar groups] items for which the election is made and the relation thereof to the balance sheet, the aggregate carrying value of items included in the balance sheet that are not eligible for the election; (7) all other required (as defined) and desired information." } } }, "auth\_ref": [ "r459", "r461", "r462", "r463", "r466", "r467", "r468", "r469", "r470", "r568", "r768", "r773" ] }, "us-gaap\_FairValueInputsLevel1Member": { "xbrlType": "domainItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "FairValueInputsLevel1Member", "presentation": [ "http://duolingo.com/role/FAIRVALUEScheduleofNetUnrealizedGainsLossesandFairValuebyMajorSecurityTypeforOurInvestmentsDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Level 1", "label": "Fair Value, Inputs, Level 1 [Member]", "documentation": "Quoted prices in active markets for identical assets or liabilities that the reporting entity can access at the measurement date." } } }, "auth\_ref": [ "r316", "r349", "r354", "r451", "r464", "r505", "r758", "r759", "r760", "r768" ] }, "us-gaap\_FairValueInputsLevel2Member": { "xbrlType": "domainItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "FairValueInputsLevel2Member", "presentation": [ "http://duolingo.com/role/FAIRVALUEScheduleofNetUnrealizedGainsLossesandFairValuebyMajorSecurityTypeforOurInvestmentsDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Level 2", "label": "Fair Value, Inputs, Level 2 [Member]", "documentation": "Inputs other than quoted prices included within level 1 that are observable for an asset or liability, either directly or indirectly, including, but not limited to, quoted prices for similar assets or liabilities in active markets, or quoted prices for identical or similar assets or liabilities in inactive markets." } } }, "auth\_ref": [ "r316", "r349", "r354", "r451", "r464", "r506", "r748", "r749", "r758", "r759", "r760", "r768" ] }, "us-gaap\_FairValueInputsLevel3Member": { "xbrlType": "domainItem", "nsuri": "http://duolingo.com/role/FAIRVALUEScheduleofNetUnrealizedGainsLossesandFairValuebyMajorSecurityTypeforOurInvestmentsDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Level 3", "label": "Fair Value, Inputs, Level 3 [Member]", "documentation": "Unobservable inputs that reflect the entity's own assumption about the assumptions market participants would use in pricing." } } }, "auth\_ref": [ "r316", "r349", "r350", "r351", "r352", "r353", "r354", "r451", "r452", "r453", "r454", "r464", "r507", "r748", "r749", "r758", "r759", "r760", "r768", "r772" ] }, "us-gaap\_FairValueLiabilitiesMeasuredOnRecurringAndNonrecurringBasisTableTextBlock": { "xbrlType": "textBlockItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "FairValueLiabilitiesMeasuredOnRecurringAndNonrecurringBasisTableTextBlock", "presentation": [ "http://duolingo.com/role/FAIRVALUETables" ], "lang": { "en-us": { "role": { "terseLabel": "Schedule of Net Unrealized Gains (Losses), and Fair Value by Major Security Type for Our Investments", "label": "Fair Value, Liabilities Measured on Recurring and Nonrecurring Basis [Table Text Block]", "documentation": "Tabular disclosure of liabilities measured at fair value measured on a recurring or nonrecurring basis. 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Financing activity cash flows include obtaining resources from owners and providing them with a return on, and a return of, their investment; borrowing money and repaying amounts borrowed, or settling the obligation; and obtaining and paying for other resources obtained from creditors on long-term credit." } } }, "auth\_ref": [ "r165" ] }, "us-gaap\_NetCashProvidedByUsedInFinancingActivitiesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInFinancingActivitiesAbstract", "presentation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOF CASHFLOWS" ] }, "lang": { "en-us": { "role": { "terseLabel": "Cash flows from financing activities", "label": "Net Cash Provided by (Used in) Financing Activities [Abstract]" } } }, "auth\_ref": [ ] }, "us-gaap\_NetCashProvidedByUsedInInvestingActivities": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInInvestingActivities", "crdr": "debit", "calculation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOF CASHFLOWS" ] }, "parentTag": "us-gaap\_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect", "weight": 1.0, "order": 2.0 }, "presentation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOF CASHFLOWS" ] }, "lang": { "en-us": { "role": { "totalLabel": "Net cash used for investing activities", "label": "Net Cash Provided by (Used in) Investing Activities", "documentation": "Amount of cash inflow (outflow) from investing activities, including discontinued operations. Investing activity cash flows include making and collecting loans and acquiring and disposing of debt or equity instruments and property, plant, and equipment and other productive assets." } } }, "auth\_ref": [ "r165" ] }, "us-gaap\_NetCashProvidedByUsedInInvestingActivitiesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInInvestingActivitiesAbstract", "presentation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOF CASHFLOWS" ] }, "lang": { "en-us": { "role": { "terseLabel": "Cash flows from investing activities", "label": "Net Cash Provided by (Used in) Investing Activities [Abstract]" } } }, "auth\_ref": [ ] }, "us-gaap\_NetCashProvidedByUsedInOperatingActivities": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInOperatingActivities", "calculation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOF CASHFLOWS" ] }, "parentTag": "us-gaap\_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect", "weight": 1.0, "order": 1.0 }, "presentation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOF CASHFLOWS" ] }, "lang": { "en-us": { "role": { "totalLabel": "Net cash provided by operating activities", "label": "Net Cash Provided by (Used in) Operating Activities", "documentation": "Amount of cash inflow (outflow) from operating activities, including discontinued operations. Operating activity cash flows include transactions, adjustments, and changes in value not defined as investing or financing activities." } } }, "auth\_ref": [ "r90", "r91", "r92" ] }, "us-gaap\_NetCashProvidedByUsedInOperatingActivitiesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInOperatingActivitiesAbstract", "presentation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOF CASHFLOWS" ] }, "lang": { "en-us": { "role": { "terseLabel": "Cash flows from operating activities", "label": "Net Cash Provided by (Used in) Operating Activities [Abstract]" } } }, "auth\_ref": [ ] }, "us-gaap\_NetIncomeLoss": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetIncomeLoss", "crdr": "credit", "calculation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOF CASHFLOWS" ] }, "parentTag": "us-gaap\_NetCashProvidedByUsedInOperatingActivities", "weight": 1.0, "order": 7.0 }, "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOF OPERATIONSANDCOMPREHENSIVEINCOME": { "parentTag": null, "weight": null, "order": null, "root": true }, "presentation": [ "http://duolingo.com/role/EARNINGSPerShareBasicandDilutedDetails" ] }, "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOF CASHFLOWS", "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOF OPERATIONSANDCOMPREHENSIVEINCOME", "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOF STOCKHOLDERSEQUITY", "http://xbrl.sec.gov/ecd/role/PvpDisclosure" ] }, "lang": { "en-us": { "role": { "totalLabel": "Net income", "netLabel": "Net income", "verboseLabel": "Net income", "terseLabel": "Net income", "label": "Net income attributable to Class A and Class B common stockholders", "label": "Net Income (Loss) Attributable to Parent", "documentation": "The portion of profit or loss for the period, net of income taxes, which is attributable to the parent." } } }, "auth\_ref": [ "r84", "r92", "r114", "r139", "r154", "r156", "r161", "r169", "r174", "r176", "r177", "r178", "r179", "r180", "r183", "r184", "r194", "r252", "r307", "r308", "r309", "r310", "r311", "r312", "r313", "r314", "r315", "r428", "r434", "r448", "r472", "r586", "r670", "r678", "r689", "r708", "r966" ] }, "us-gaap\_NetIncomeLossAttributableToRedeemableNoncontrollingInterestAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetIncomeLossAttributableToRedeemableNoncontrollingInterestAbstract", "presentation": [ "http://duolingo.com/role/EARNINGSPerShareBasicandDilutedDetails" ] }, "lang": { "en-us": { "role": { "terseLabel": "Numerator", "label": "Net Income (Loss) Attributable to Redeemable Noncontrolling Interest [Abstract]" } } }, "auth\_ref": [ ] }, "us-gaap\_NewAccountingPronouncementsPolicyTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NewAccountingPronouncementsPolicyTextBlock", "presentation": [ "http://duolingo.com/role/SUMMARYOF SIGNIFICANT ACCOUNTING POLICIES Policies" ] }, "lang": { "en-us": { "role": { "terseLabel": "Recently Issued Pronouncements Not Yet Adopted and Recently Adopted Accounting Pronouncements", "label": "New Accounting Pronouncements, Policy [Policy Text Block]", "documentation": "Disclosure of accounting policy pertaining to new accounting pronouncements that may impact the entity's financial reporting. Includes, but is not limited to, quantification of the expected or actual impact." } } }, "auth\_ref": [ ] }, "duol\_NewYorkNewYorkMember": { "xbrltype": "domainItemType", "nsuri": "http://duolingo.com/20240930", "localname": "NewYorkNewYorkMember", "presentation": [ "http://duolingo.com/role/LEASESNarrativeDetails" ] }, "lang": { "en-us": { "role": { "terseLabel": "New York, New York", "label": "New York, New York [Member]", "documentation": "New York, New York" } } }, "auth\_ref": [ ] }, "ecd\_NonGaapMeasureDescriptionTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "NonGaapMeasureDescriptionTextBlock", "presentation": [ "http://xbrl.sec.gov/ecd/role/PvpDisclosure" ] }, "lang": { "en-us": { "role": { "terseLabel": "Non-GAAP Measure Description", "label": "Non-GAAP Measure Description [Text Block]" } } }, "auth\_ref": [ "r858" ] }, "ecd\_NonNeosMember": { "xbrltype": "domainItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", 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Includes selling, general and administrative expense." } } }, "auth\_ref": [ ] }, "us-gaap\_OperatingExpensesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "OperatingExpensesAbstract", "presentation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOF OPERATIONSANDCOMPREHENSIVEINCOME" ] }, "lang": { "en-us": { "role": { "terseLabel": "Operating expenses", "label": "Operating Expenses [Abstract]" } } }, "auth\_ref": [ ] }, "us-gaap\_OperatingIncomeLoss": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "OperatingIncomeLoss", "crdr": "credit", "calculation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOF OPERATIONSANDCOMPREHENSIVEINCOME" ] }, "parentTag": "duol\_IncomeLossFromContinuingOperationsBeforeInterestIncomeIncomeTaxesNoncontrollingInterests", "weight": 1.0, "order": 1.0 }, "presentation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOF OPERATIONSANDCOMPREHENSIVEINCOME" ] }, "lang": { "en-us": { "role": { "totalLabel": "Income (loss) from operations", "label": "Operating Income (Loss)", "documentation": "The net result for the period of deducting operating expenses from operating revenues." } } }, "auth\_ref": [ "r117", "r741", "r924", "r925", "r926", "r927", "r928" ] }, "us-gaap\_OperatingLeaseCost": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "OperatingLeaseCost", "crdr": "debit", "presentation": [ "http://duolingo.com/role/LEASEScheduleofFutureMinimumRentalPaymentsForOperatingLeasesDetails" ] }, "lang": { "en-us": { "role": { "terseLabel": "Operating lease cost", "label": "Operating Lease, Cost", "documentation": "Amount of single lease cost, calculated by allocation of remaining cost of lease over remaining lease term. Includes, but is not limited to, single lease cost, after impairment of right-of-use asset, calculated by amortization of remaining right-of-use asset and accretion of lease liability." } } }, "auth\_ref": [ "r849", "r779" ] }, "us-gaap\_OperatingLeaseLiability": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "OperatingLeaseLiability", "crdr": "credit", "calculation": [ "http://duolingo.com/role/LEASEScheduleofFutureMinimumRentalPaymentsForOperatingLeasesDetails" ] }, "parentTag": "us-gaap\_LesseeOperatingLeaseLiabilityPaymentsDue", "weight": 1.0, "order": 2.0 }, "presentation": [ "http://duolingo.com/role/LEASEScheduleofFutureMinimumRentalPaymentsForOperatingLeasesDetails" ] }, "lang": { "en-us": { "role": { "terseLabel": "Operating lease liabilities", "label": "Operating Lease, Liability", "documentation": "Present value of lessee's discounted obligation for lease payments from operating lease." } } }, "auth\_ref": [ "r484" ] }, "us-gaap\_OperatingLeaseLiabilityCurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "OperatingLeaseLiabilityCurrent", "crdr": "credit",



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Includes, but is not limited to, work of art, historical treasure, and similar asset classified as collections." } } }, "auth ref": [ "r215", "r535", "r594", "r595", "r596", "r597", "r598", "r599", "r600", "r732", "r751", "r790", "r792", "r793", "r796", "r798", "r964", "r965", "r970", "r1025", "r1029", "r1030", "r1031", "r1032", "r1033", "r1034", "r1035", "r1036", "r1037", "r1038", "r1039", "r1040", "r1041", "r1042", "r1043", "r1044", "r1045", "r1046", "r1047", "r1048", "r1049", "r1050", "r1051", "r1052", "r1053", "r1054", "r1056", "r1057" ] }, "srt ProductsAndServicesDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "ProductsAndServicesDomain", "presentation": [ { "http://duolingo.com/role/REVENUEScheduleofDisaggregationofRevenueDetails", "lang": { "en-us": { "role": { "terseLabel": "Product and Service [Domain]", "label": "Product and Service [Domain]", "documentation": "Product and Service [Domain]" } } }, "auth ref": [ "r215", "r535", "r594", "r595", "r596", "r597", "r598", "r599", "r600", "r732", "r751", "r790", "r792", "r793", "r796", "r798", "r964", "r965", "r970", "r1025", "r1029", "r1030", "r1031", "r1032", "r1033", "r1034", "r1035", "r1036", "r1037", "r1038", "r1039", "r1040", "r1041", "r1042", "r1043", "r1044", "r1045", "r1046", "r1047", "r1048", "r1049", "r1050", "r1051", "r1052", "r1053", "r1054", "r1056", "r1057" ] }, "us-gaap PropertyPlantAndEquipmentAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentAbstract", "presentation": [ { "http://duolingo.com/role/PROPERTYandEquipmentNet", "lang": { "en-us": { "role": { "label": "Property, Plant and Equipment [Abstract]", "auth ref": [ ] }, "us-gaap PropertyPlantAndEquipmentByTypeAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentByTypeAxis", "presentation": [ { "http://duolingo.com/role/PROPERTYandEquipmentNetScheduleofPropertyandEquipmentDetails", "lang": { "en-us": { "role": { "terseLabel": "Long-Lived Tangible Asset [Axis]", "label": "Long-Lived Tangible Asset [Axis]", "documentation": "Information by type of long-lived, physical assets used to produce goods and services and not intended for resale." } } }, "auth ref": [ "r9", "r497" ] }, "us-gaap PropertyPlantAndEquipmentDisclosureTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentDisclosureTextBlock", "presentation": [ { "http://duolingo.com/role/PROPERTYandEquipmentNet", "lang": { "en-us": { "role": { "terseLabel": "PROPERTY and EQUIPMENT net", "label": "Property, Plant and Equipment Disclosure [Text Block]", "documentation": "The entire disclosure for long-lived, physical asset used in normal conduct of business and not intended for resale. Includes, but is not limited to, work of art, historical treasure, and similar asset classified as collections." } } }, "auth ref": [ "r97", "r130", "r133", "r134" ] }, "us-gaap PropertyPlantAndEquipmentGross": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentGross", "crdr": "debit", "calculation": { "http://duolingo.com/role/PROPERTYandEquipmentNetScheduleofPropertyandEquipmentDetails", "parentTag": "us-gaap PropertyPlantAndEquipmentNet", "weight": 1.0, "order": 1.0 } }, "presentation": [ { "http://duolingo.com/role/PROPERTYandEquipmentNetScheduleofPropertyandEquipmentDetails", "lang": { "en-us": { "role": { "terseLabel": "Total property and equipment", "label": "Property, Plant and Equipment, Gross", "documentation": "Amount before accumulated depreciation, depletion and amortization of physical assets used in the normal conduct of business and not intended for resale. Examples include, but are not limited to, land, buildings, machinery and equipment, office equipment, and furniture and fixtures." } } }, "auth ref": [ "r98", "r144", "r584" ] }, "us-gaap PropertyPlantAndEquipmentLineItems": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentLineItems", "presentation": [ { "http://duolingo.com/role/PROPERTYandEquipmentNetScheduleofDepreciationExpenseDetails", "lang": { "en-us": { "role": { "terseLabel": "Property, Plant and Equipment [Line Items]", "label": "Property, Plant and Equipment [Line Items]", "documentation": "Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table." } } }, "auth ref": [ "r497" ] }, "us-gaap PropertyPlantAndEquipmentNet": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentNet", "crdr": "debit", "calculation": { "parentTag": "us-gaap Assets", "weight": 1.0, "order": 2.0 } }, "presentation": [ { "http://duolingo.com/role/PROPERTYandEquipmentNetScheduleofPropertyandEquipmentDetails": { "parentTag": null, "weight": null, "order": null, "root": true } }, "presentation": [ { "http://duolingo.com/role/PROPERTYandEquipmentNetScheduleofPropertyandEquipmentDetails", "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDBALANCESHEETS", "lang": { "en-us": { "role": { "terseLabel": "Property and equipment, net", "totalLabel": "Total property and equipment, net", "label": "Property, Plant and Equipment, Net", "documentation": "Amount after accumulated depreciation, depletion and amortization of physical assets used in the normal conduct of business to produce goods and services and not intended for resale. Examples include, but are not limited to, land, buildings, machinery and equipment, office equipment, and furniture and fixtures." } } }, "auth ref": [ "r9", "r497", "r574", "r584", "r780" ] }, "us-gaap PropertyPlantAndEquipmentTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentTextBlock", "presentation": [ { "http://duolingo.com/role/PROPERTYandEquipmentNetTables", "lang": { "en-us": { "role": { "terseLabel": "Schedule of Property and Equipment", "label": "Property, Plant and Equipment [Table Text Block]", "documentation": "Tabular disclosure of physical assets used in the normal conduct of business and not intended for resale. Includes, but is not limited to, balances by class of assets, depreciation and depletion expense and method used, including composite depreciation, and accumulated depreciation." } } }, "auth ref": [ "r9" ] }, "us-gaap PropertyPlantAndEquipmentTypeDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentTypeDomain", "presentation": [ { "http://duolingo.com/role/PROPERTYandEquipmentNetScheduleofPropertyandEquipmentDetails", "lang": { "en-us": { "role": { "terseLabel": "Long-Lived Tangible Asset [Domain]", "label": "Long-Lived Tangible Asset [Domain]", "documentation": "Listing of long-lived, physical assets that are used in the normal conduct of business to produce goods and services and not intended for resale. Examples include land, buildings, machinery and equipment, and other types of furniture and equipment including, but not limited to, office equipment, furniture and fixtures, and computer equipment and software." } } }, "auth ref": [ "r98", "r497" ] }, "ecd PvpTable": { "xbrltype": "stringItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "PvpTable", "presentation": [ { "http://xbrl.sec.gov/ecd/role/PvpDisclosure", "lang": { "en-us": { "role": { "terseLabel": "Pay vs Performance Disclosure", "label": "Pay vs Performance Disclosure [Table]", "auth ref": [ "r847" ] }, "ecd PvpTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "PvpTableTextBlock", "presentation": [ { "http://xbrl.sec.gov/ecd/role/PvpDisclosure", "lang": { "en-us": { "role": { "terseLabel": "Pay vs Performance Disclosure, Table", "label": "Pay vs Performance [Table Text Block]" } } }, "auth ref": [ "r847" ] }, "srt RangeAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "RangeAxis", "presentation": [ { "http://duolingo.com/role/FAIRVALUENarrativeDetails", "http://duolingo.com/role/STOCKBASEDCOMPENSATIONNarrativeDetails", "lang": { "en-us": { "role": { "terseLabel": "Statistical Measurement [Axis]", "label": "Statistical Measurement [Axis]", "auth ref": [ "r302", "r303", "r304", "r305", "r348", "r357", "r387", "r388", "r389", "r397", "r454", "r508", "r517", "r533", "r601", "r603", "r610", "r639", "r640", "r693", "r697", "r699", "r700", "r702", "r726", "r727", "r744", "r750", "r763", "r772", "r773", "r777", "r778", "r792", "r801", "r862", "r968", "r1004", "r1017", "r1018", "r1019", "r1020", "r1021" ] }, "srt RangeMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "RangeMember", "presentation": [ { "http://duolingo.com/role/FAIRVALUENarrativeDetails", "http://duolingo.com/role/STOCKBASEDCOMPENSATIONNarrativeDetails", "lang": { "en-us": { "role": { "terseLabel": "Statistical Measurement [Domain]", "label": "Statistical Measurement [Domain]", "auth ref": [ "r302", "r303", "r304", "r305", "r348", "r357", "r387", "r388", "r389", "r397", "r454", "r508", "r517", "r533", "r601", "r603", "r610", "r639", "r640", "r693", "r697", "r699", "r700", "r702", "r726", "r727", "r744", "r750", "r763", "r772", "r773", "r777", "r778", "r792", "r801", "r862", "r968", "r1004", "r1017", "r1018", "r1019", "r1020", "r1021" ] }, "ecd RecoveryOffErrCompDisclosureLineItems": { "xbrltype": "stringItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "RecoveryOffErrCompDisclosureLineItems", "lang": { "en-us": { "role": { "label": "Recovery of Erroneously Awarded Compensation Disclosure [Line Items]", "auth ref": [ "r815", "r825", "r835", "r867" ] }, "us-gaap ResearchAndDevelopmentExpense": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ResearchAndDevelopmentExpense", "crdr": "debit", "calculation": { "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOFOPERATIONSANDCOMPREHENSIVEINCOME": { "parentTag": "us-gaap OperatingExpenses", "weight": 1.0, "order": 1.0 } }, "presentation": [ { "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOFOPERATIONSANDCOMPREHENSIVEINCOME", "lang": { "en-us": { "role": { "terseLabel": "Research and development", "label": "Research and Development Expense", "documentation": "Amount of expense for research and development. Includes, but is not limited to, cost for computer software product to be sold, leased, or otherwise marketed and writeoff of research and development assets acquired in transaction other than business combination or joint venture formation or both. Excludes write-down of intangible asset acquired in business combination or from joint venture formation or both, used in research and development activity." } } }, "auth ref": [ "r399", "r730", "r742", "r1022" ] }, "us-gaap ResearchAndDevelopmentExpenseMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ResearchAndDevelopmentExpenseMember", "presentation": [ { "http://duolingo.com/role/PROPERTYandEquipmentNetScheduleofDepreciationExpenseDetails", "http://duolingo.com/role/STOCKBASEDCOMPENSATIONScheduleofIncomeStatementLocationforCompensationExpenseDetails", "lang": { "en-us": { "role": { "terseLabel": "Research and development", "verboseLabel": "Research and development", "label": "Research and Development Expense [Member]", "documentation": "Primary financial statement caption in which the reported facts about research and development expense have been included." } } }, "auth ref": [ ] }, "ecd RestatementDateAxis": { "xbrltype": "stringItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "RestatementDateAxis", "presentation": [ { "http://xbrl.sec.gov/ecd/role/ErrCompDisclosure", "lang": { "en-us": { "role": { "terseLabel": "Restatement Determination Date", "label": "Restatement Determination Date [Axis]", "auth ref": [ "r816", "r826", "r836", "r868" ] }, "ecd RestatementDeterminationDate": { "xbrltype": "dateItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "RestatementDeterminationDate", "presentation": [ { "http://xbrl.sec.gov/ecd/role/ErrCompDisclosure", "lang": { "en-us": { "role": { "terseLabel": "Restatement Determination Date", "label": "Restatement Determination Date" } } }, "auth ref": [ "r817", "r827", "r837", "r869" ] }, "ecd RestatementDoesNotRequireRecoveryTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "RestatementDoesNotRequireRecoveryTextBlock", "presentation": [ { "http://xbrl.sec.gov/ecd/role/ErrCompDisclosure", "lang": { "en-us": { "role": { "terseLabel": "Restatement does not require Recovery", "label": "Restatement Does Not Require Recovery [Text Block]", "auth ref": [ "r824", "r834", "r844", "r876" ] }, "us-gaap RestrictedCashAndCashEquivalentsCashAndCashEquivalentsMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RestrictedCashAndCashEquivalentsCashAndCashEquivalentsMember", "presentation": [ { "http://duolingo.com/role/FAIRVALUEScheduleofNetUnrealizedGainsLossesandFairValuebyMajorSecurityTypeforOurInvestmentsDetails", "lang": { "en-us": { "role": { "terseLabel": "Cash and Cash Equivalents [Domain]", "label": "Cash and Cash Equivalents [Domain]", "documentation": "Type of cash and cash equivalent. Cash is currency on hand as well as demand deposits with banks or financial institutions. Includes other kinds of accounts that have the general characteristics of demand deposits. Also includes short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates." } } }, "auth ref": [ "r142" ] }, "us-gaap RestrictedCashNoncurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RestrictedCashNoncurrent", "crdr": "debit", "calculation": { "parentTag": "us-gaap RestrictedCashAndCashEquivalentsCashAndCashEquivalentsMember", "weight": 1.0, "order": 8.0 } }, "presentation": [ { "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDBALANCESHEETS": { "parentTag": "us-gaap Assets", "weight": 1.0, "order": 8.0 } }, "presentation": [ { "http://duolingo.com/role/COMMITMENTSANDCONTINGENCIESDetails", "http://duolingo.com/role/LEASESNarrativeDetails", "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDBALANCESHEETS", "lang": { "en-us": { "role": { "terseLabel": "Restricted cash", "label": "Restricted Cash, Noncurrent", "documentation": "Amount of cash restricted as to withdrawal or usage, classified as noncurrent. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits." } } }, "auth ref": [ "r125", "r909", "r914" ] }, "duol RestrictedCashNoncurrentAsAPercentageOfOutstandingLetterOfCredit": { "xbrltype": "percentItemType", "nsuri": "http://duolingo.com/20240930", "localname": "RestrictedCashNoncurrentAsAPercentageOfOutstandingLetterOfCredit", "presentation": [ { "http://duolingo.com/role/COMMITMENTSANDCONTINGENCIESDetails", "lang": { "en-us": { "role": { "terseLabel": "Percentage of letter of credit (in percent)", "label": "Restricted Cash, Noncurrent As A Percentage of Outstanding Letter Of Credit", "documentation": "Restricted Cash, Noncurrent As A Percentage of Outstanding Letter Of Credit" } } }, "auth ref": [ ] }, "us-gaap RestrictedStockUnitsRSUMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RestrictedStockUnitsRSUMember", "presentation": [ { "http://duolingo.com/role/STOCKBASEDCOMPENSATIONNarrativeDetails", "http://duolingo.com/role/STOCKBASEDCOMPENSATIONScheduleofEarningsPerShareBasicandDilutedDetails", "http://duolingo.com/role/STOCKBASEDCOMPENSATIONScheduleofRestrictedStockUnitActivityDetails", "http://xbrl.sec.gov/ecd/role/AwardTimingDisclosure", "lang": { "en-us": { "role": { "verboseLabel": "Restricted Stock Units (RSUs)", "terseLabel": "RSUs outstanding", "label": "Restricted Stock Units [Member]", "documentation": "Share instrument which is convertible to stock or an equivalent amount of cash, after a specified period of time or when specified performance conditions are met." } } }, "auth ref": [ ] }, "us-gaap RetainedEarningsAccumulatedDeficit": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RetainedEarningsAccumulatedDeficit", "crdr": "credit", "calculation": { "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDBALANCESHEETS": { "parentTag": "us-gaap StockholdersEquity", "weight": 1.0, "order": 3.0 } }, "presentation": [ { "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDBALANCESHEETS", "lang": { "en-us": { "role": { "terseLabel": "Accumulated deficit", "label": "Retained Earnings (Accumulated Deficit)", "documentation": "Amount of accumulated undistributed earnings (deficit)." } } }, "auth ref": [ "r77", "r102", "r581", "r608", "r609", "r621", "r650", "r780" ] }, "us-gaap RetainedEarningsMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RetainedEarningsMember", "presentation": [ { "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOFSTOCKHOLDERSEQUITY", "lang": { "en-us": { "role": { "terseLabel": "Accumulated Deficit", "label": "Retained Earnings [Member]", "documentation": "Accumulated undistributed earnings (deficit)." } } }, "auth ref": [ "r138", "r171", "r172", "r173", "r175", "r180", "r182", "r184", "r253", "r254", "r296", "r418", "r419", "r425", "r426", "r427", "r429", "r433", "r434", "r439", "r441", "r442", "r444", "r446", "r479", "r481", "r605", "r607", "r623", "r1060" ] }, "us-gaap RevenueFromContractWithCustomerAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenueFromContractWithCustomerAbstract", "lang": { "en-us": { "role": { "label": "Revenue from Contract with Customer [Abstract]", "auth ref": [ ] }, "us-gaap RevenueFromContractWithCustomerExcludingAssessedTax": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenueFromContractWithCustomerExcludingAssessedTax", "crdr": "credit", "calculation": {

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Tax collected from customer is tax assessed by governmental authority that is both imposed on and concurrent with specific revenue-producing transaction, including, but not limited to, sales, use, value added and excise." } } }, "auth\_ref": [ "r115", "r116", "r202", "r207", "r208", "r212", "r214", "r215", "r216", "r218", "r343", "r344", "r535" ], "duol\_RvenueFromContractWithCustomerLiabilityRollForward": { "xbrltype": "stringItem", "nsuri": "http://duolingo.com/20240930", "localname": "RevenueFromContractWithCustomerLiabilityRollForward", "presentation": [ "http://duolingo.com/role/REVENUEScheduleofDeferredRevenuesDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Revenue from Contract with Customer, Liability [Roll Forward]", "label": "Revenue from Contract with Customer, Liability [Roll Forward]", "documentation": "Revenue from Contract with Customer, Liability" } } }, "auth\_ref": [ "us-gaap\_RvenueFromContractWithCustomerMember" ], "presentation": [ "http://duolingo.com/role/REVENUENarrativeDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Revenue from Contract with Customer Benchmark", "label": "Revenue from Contract with Customer Benchmark [Member]", "documentation": "Revenue from satisfaction of performance obligation by transferring promised product and service to customer, when it serves as benchmark in concentration of risk calculation." } } }, "auth\_ref": [ "r218", "r899" ], "us-gaap\_RvenueFromContractWithCustomerPolicyTextBlock": { "xbrltype": "textBlockItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenueFromContractWithCustomerPolicyTextBlock", "presentation": [ "http://duolingo.com/role/SUMMARYOFFSIGNIFICANTACCOUNTINGPOLICIES" ], "lang": { "en-us": { "role": { "terseLabel": "Revenue", "label": "Revenue from Contract with Customer [Policy Text Block]", "documentation": "Disclosure of accounting policy for revenue from contract with customer." } } }, "auth\_ref": [ "r136", "r335", "r336", "r337", "r338", "r339", "r340", "r341", "r342", "r731" ], "us-gaap\_RvenueFromContractWithCustomerTextBlock": { "xbrltype": "textBlockItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenueFromContractWithCustomerTextBlock", "presentation": [ "http://duolingo.com/role/REVENUE" ], "lang": { "en-us": { "role": { "terseLabel": "REVENUE", "label": "Revenue from Contract with Customer [Text Block]", "documentation": "The entire disclosure of revenue from contract with customer to transfer good or service and to transfer nonfinancial asset. Includes, but is not limited to, disaggregation of revenue, credit loss recognized from contract with customer, judgment and change in judgment related to contract with customer, and asset recognized from cost incurred to obtain or fulfill contract with customer. Excludes insurance and lease contracts." } } }, "auth\_ref": [ "r136", "r327", "r328", "r329", "r330", "r331", "r332", "r333", "r334", "r347" ], "duol\_RightOfUseAssetDecreaseFromModificationsOperatingLeaseLiabilities": { "xbrltype": "monetaryItem", "nsuri": "http://duolingo.com/20240930", "localname": "RightOfUseAssetDecreaseFromModificationsOperatingLeaseLiabilities", "crdr": "credit", "presentation": [ "http://duolingo.com/role/UNAUDITEDCONDENSEDCONSOLIDATEDSTATEMENTSOF CASH FLOWS" ], "lang": { "en-us": { "role": { "terseLabel": "Right of use assets disposed or adjusted modifying operating lease liabilities", "label": "Right-of-Use Asset, Decrease From Modifications, Operating Lease Liabilities", "documentation": "Right-of-Use Asset, Decrease From Modifications, Operating Lease Liabilities" } } }, "auth\_ref": [ "duol\_RightOfUseAssetIncreaseDecreaseFromModificationsNetOperatingLeaseLiabilities" ], "xbrltype": "monetaryItem", "nsuri": "http://duolingo.com/20240930", "localname": 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"r920" ], "us-gaap\_ScheduleOfAntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareTable": { "xbrltype": "stringItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfAntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareTable", "presentation": [ "http://duolingo.com/role/EARNINGSPEPERSHARENarrativeDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Schedule of Antidilutive Securities Excluded from Computation of Earnings Per Share [Table]", "label": "Antidilutive Security, Excluded EPS Calculation [Table]", "documentation": "Disclosure of information about security that could potentially dilute basic earnings per share (EPS) in future that was not included in calculation of diluted EPS." } } }, "auth\_ref": [ "r29" ], "us-gaap\_ScheduleOfBusinessAcquisitionsByAcquisitionTable": { "xbrltype": "stringItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfBusinessAcquisitionsByAcquisitionTable", "presentation": [ 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Includes, but is not limited to, recognized asset and liability." } } }, "auth\_ref": [ "r52", "r53", "r430" ], "us-gaap\_ScheduleOfDefinedBenefitPlansDisclosuresTable": { "xbrltype": "stringItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfDefinedBenefitPlansDisclosuresTable", "presentation": [ "http://duolingo.com/role/EMPLOYEEBENEFITPLANDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Schedule of Defined Benefit Plans Disclosures [Table]", "label": "Defined Benefit Plan [Table]", "documentation": "Disclosure of information about individual defined benefit pension plan or other postretirement defined benefit plan. It may be appropriate to group certain similar plans. Also includes schedule for fair value of plan assets by major categories of plan assets by the level within the fair value hierarchy in which the fair value measurements in their entirety fall, segregating fair value measurements using quoted prices in active markets for identical assets or liabilities (Level 1), Significant other observable inputs (Level 2), and significant unobservable inputs (Level 3)." } } }, "auth\_ref": [ "r11", "r42", "r43", "r44", "r45" ], "us-gaap\_ScheduleOfEarningsPerShareBasicAndDilutedTableTextBlock": { "xbrltype": "textBlockItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfEarningsPerShareBasicAndDilutedTableTextBlock", "presentation": [ "http://duolingo.com/role/EARNINGSPEPERSHARETables" ], "lang": { "en-us": { "role": { "terseLabel": "Schedule of Earnings Per Share, Basic and Diluted", "label": "Schedule of Earnings Per Share, Basic and Diluted [Table Text Block]", "documentation": "Tabular disclosure of an entity's basic and diluted earnings per share calculations, including a reconciliation of numerators and denominators of the basic and diluted per-share computations for income from continuing operations." } } }, "auth\_ref": [ "r923" ], "us-gaap\_ScheduleOfEarningsPerShareDilutedByCommonClassTable": { "xbrltype": "stringItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfEarningsPerShareDilutedByCommonClassTable", "presentation": [ "http://duolingo.com/role/EARNINGSPEPERSHAREScheduleofEarningsPerShareBasicandDilutedDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Schedule of Earnings Per Share, Diluted, by Common Class, Including Two Class Method [Table]", "label": "Earnings Per Share, Diluted, by Common Class, Including Two-Class Method [Table]", "documentation": "Disclosure of information about diluted earnings per share by class of stock. Includes, but is not limited to, two-class method." } } }, "auth\_ref": [ "r28", "r30", "r189", "r193", "r195" ], "us-gaap\_ScheduleOfEffectiveIncomeTaxRateReconciliationTableTextBlock": { "xbrltype": "textBlockItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfEffectiveIncomeTaxRateReconciliationTableTextBlock", "presentation": [ "http://duolingo.com/role/INCOMETAXESTables" ], "lang": { "en-us": { "role": { "terseLabel": "Schedule of Effective Income Tax Rate Reconciliation", "label": "Schedule of Effective Income Tax Rate Reconciliation [Table Text Block]", "documentation": "Tabular disclosure of the reconciliation using percentage or dollar amounts of the reported amount of income tax expense attributable to continuing operations for the year to the amount of income tax expense that would result from applying domestic federal statutory tax rates to pretax income from continuing operations." } } }, "auth\_ref": [ "r407", "r767", "r1000" ], "us-gaap\_ScheduleOfEmployeeServiceShareBasedCompensationAllocationOfRecognizedPeriodCostsTextBlock": { "xbrltype": "textBlockItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfEmployeeServiceShareBasedCompensationAllocationOfRecognizedPeriodCostsTextBlock", "presentation": [ "http://duolingo.com/role/STOCKBASEDCOMPENSATIONTables" ], "lang": { "en-us": { "role": { "terseLabel": "Schedule of Share-based Payment Arrangement, Expensed, Amount", "label": "Share-based Payment Arrangement, Expensed and Capitalized, Amount [Table Text Block]", "documentation": "Tabular disclosure of allocation of amount expensed and capitalized for award under share-based payment arrangement to statement of income or comprehensive income and statement of financial position. Includes, but is not limited to, corresponding line item in financial statement." } } }, "auth\_ref": [ "r48" ], "us-gaap\_ScheduleOfFiniteLivedIntangibleAssetsTable": { "xbrltype": "stringItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfFiniteLivedIntangibleAssetsTable", "presentation": [ "http://duolingo.com/role/INTANGIBLEASSETSANDGOODWILLScheduleofIntangibleAssetsAmortizationExpenseDetails", "http://duolingo.com/role/INTANGIBLEASSETSANDGOODWILLScheduleofIntangibleAssetsDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Schedule of Finite-Lived Intangible Assets [Table]", "label": "Intangible Asset, Finite-Lived [Table]", "documentation": "Disclosure of information about finite-lived intangible asset. Excludes indefinite-lived intangible asset." } } }, "auth\_ref": [ "r283", "r289", "r291", "r292", "r294", "r536", "r730", "r747" ], "us-gaap\_ScheduleOfFiniteLivedIntangibleAssetsTableTextBlock": { "xbrltype": "textBlockItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfFiniteLivedIntangibleAssetsTableTextBlock", "presentation": [ "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfFiniteLivedIntangibleAssetsTableTextBlock", "presentation": [ "http://duolingo.com/role/INTANGIBLEASSETSANDGOODWILLTables" ], "lang": { "en-us": { "role": { "terseLabel": "Schedule of Intangible Assets", "label": "Schedule of Finite-Lived Intangible Assets [Table Text Block]", "documentation": "Tabular disclosure of assets, excluding financial assets and goodwill, lacking physical substance with a finite life, by either major class or business segment." } } }, "auth\_ref": [ "r747", "r955" ], "us-gaap\_ScheduleOfGoodwillTextBlock": { "xbrltype": "textBlockItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfGoodwillTextBlock", "presentation": [ "http://duolingo.com/role/INTANGIBLEASSETSANDGOODWILLTables" ], "lang": { "en-us": { "role": { "terseLabel": "Schedule of Goodwill", "label": "Schedule of Goodwill [Table Text Block]", "documentation": "Tabular disclosure of goodwill by reportable segment and in total which includes a rollforward schedule." } } }, "auth\_ref": [ "r746", "r938", "r939", "r940", "r941", "r942", "r943", "r944", "r945", "r946", "r947", "r948" ], "us-gaap\_ScheduleOfPropertyPlantAndEquipmentTable": { "xbrltype": "stringItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfPropertyPlantAndEquipmentTable", "presentation": [ "http://duolingo.com/role/PROPERTYandEQUIPMENTScheduleofPropertyandEquipmentDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Property, Plant and Equipment [Table]", "label": "Property, Plant and Equipment [Table]", "documentation": "Disclosure of information about physical assets used in the normal conduct of business and not intended for resale. Includes, but is not limited to, balances by class of assets, depreciation and depletion expense and method used, including composite depreciation, and accumulated depreciation." } } }, "auth\_ref": [ "r19", "r497" ], "us-gaap\_ScheduleOfRecognizedIdentifiedAssetsAcquiredAndLiabilitiesAssumedTableTextBlock": { "xbrltype": "textBlockItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfRecognizedIdentifiedAssetsAcquiredAndLiabilitiesAssumedTableTextBlock", "presentation": [ "http://duolingo.com/role/ACQUISITIONSTables" ], "lang": { "en-us": { "role": { "terseLabel": "Schedule of Recognized Identified Assets Acquired and Liabilities Assumed", "label": "Schedule of Recognized Identified Assets Acquired and Liabilities Assumed [Table Text Block]", "documentation": "Tabular disclosure of the amounts recognized as of the acquisition date for each major class of assets acquired and liabilities assumed. May include but not limited to the following: (a) acquired receivables; (b) contingencies recognized at the acquisition date; and (c) the fair value of noncontrolling interests in the acquiree." } } }, "auth\_ref": [ "r106" ], "us-gaap\_ScheduleOfShareBasedCompensationArrangementsByShareBasedPaymentAwardTable": { "xbrltype": "stringItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfShareBasedCompensationArrangementsByShareBasedPaymentAwardTable", "presentation": [ "http://duolingo.com/role/STOCKBASEDCOMPENSATIONNarrativeDetails", "http://duolingo.com/role/STOCKBASEDCOMPENSATIONScheduleofIncomeStatementLocationforCompensationExpenseDetails", "http://duolingo.com/role/STOCKBASEDCOMPENSATIONScheduleofPaymentAwardDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Schedule of Share-based Compensation Arrangements by Share-based Payment Award [Table]", "label": "Schedule of Share-based Compensation Arrangements by Share-based Payment Award [Table]", "documentation": "Disclosure of information about share-based payment arrangement." } } }, "auth\_ref": [ "r360", "r362", "r365", "r366", "r367", "r368", "r369", "r370", "r371", "r372", "r373", "r374", "r375", "r376", "r377", "r378", "r379", "r380", "r381", "r382", "r383", "r384", "r385", "r386", "r387", "r388", "r389", "r390" ], "us-gaap\_ScheduleOfShareBasedCompensationStockOptionsActivityTableTextBlock": { "xbrltype": "textBlockItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfShareBasedCompensationStockOptionsActivityTableTextBlock", "presentation": [ "http://duolingo.com/role/STOCKBASEDCOMPENSATIONTables" ], "lang": { "en-us": { "role": { "terseLabel": "Schedule of Share-based Payment Arrangement, Option, Activity", "label": "Share-Based Payment Arrangement, Option, Activity [Table Text Block]", "documentation": "Tabular disclosure for stock option plans. Includes, but is not limited to, outstanding awards at beginning and end of year, grants, exercises, forfeitures, and weighted-average grant date fair value." } } }, "auth\_ref": [ "r14", "r15", "r103" ], "us-gaap\_ScheduleOfShareBasedCompensationRestrictedStockAndRestrictedStockUnitsActivityTableTextBlock": { "xbrltype": "textBlockItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfShareBasedCompensationRestrictedStockAndRestrictedStockUnitsActivityTableTextBlock", "presentation": [ "http://duolingo.com/role/STOCKBASEDCOMPENSATIONTables" ], "lang": { "en-us": { "role": { "terseLabel": "Schedule of Share-based Payment Arrangement, Restricted Stock, Activity", "label": "Share-Based Payment Arrangement, Restricted Stock and Restricted Stock Unit, Activity [Table Text Block]", "documentation": "Disclosure of the number and weighted-average grant date fair value for restricted stock and restricted stock units that were outstanding at the beginning and end of the year, and the number of restricted stock and restricted stock units that were granted, vested, or forfeited during the year." } } }, "auth\_ref": [ "us-gaap\_ScheduleOfFiniteLivedIntangibleAssetsFutureAmortizationExpenseTableTextBlock" ], "xbrltype": "textBlockItem", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfFiniteLivedIntangibleAssetsFutureAmortizationExpenseTableTextBlock", "presentation": [ "http://duolingo.com/role/INTANGIBLEASSETSANDGOODWILLTables" ], "lang": { "en-us": { "role": { "terseLabel": "Schedule of Intangible Assets, Future Amortization Expense", "label": "Schedule of Finite-Lived Intangible Assets, Future Amortization Expense [Table Text Block]", "documentation": "Tabular disclosure of the amount of amortization expense expected to be recorded in succeeding fiscal years for finite-lived intangible assets." } } }, "auth\_ref": [ "r747", "r957" ], "duol\_SeattleWashingtonMember": { "xbrltype": "domainItem", "nsuri": "http://duolingo.com/20240930", "localname": "SeattleWashingtonMember", "presentation": [ "http://duolingo.com/role/LEASENarrativeDetails" ], "lang": { "en-us": { "role": { "terseLabel": "Seattle Washington Member" } } } }

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Includes, but is not limited to, combination of market, performance or service condition." } } } , "auth\_ref": [ "r764" ] } } , "us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsAdditionalDisclosuresAbstract": { "xbrlytype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsAdditionalDisclosuresAbstract", "presentation": [ "http://duolingo.com/role/STOCKBASEDCOMPENSATIONScheduleofRestrictedStockUnitActivityDetails" ] , "lang": { "en-us": { "role": { "terseLabel": "Restricted stock units", "label": "Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Additional Disclosures [Abstract]" } } } , "auth\_ref": [ ] } } , "us-gaap\_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsForfeitedInPeriod": { "xbrlytype": "sharesItemType", 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=>HCB9H1V<5S=EX.K1FV0^>DESPOX7<XZS0H&F3VX4.M^961A2D28B91&R&K.8>H1R1BM1N.132+1>W0>4>1^>5L=Z1^R50^M=>#&S41>=>1RWHECY)A-  
>SL.PBOJ1P.VN4L6<#&=>#>F2WYVYD1(SCT57.MQF^>5LGM&OEY=IN6CB.(V9HD2H@>2QSC.(AG1G)G.H1=>#>90^>F>+9K1.M



+76UL??ID:61D1CF8+SI:A4YX3+S992+M3EH+36GJG:MPY-9FOJ8+Q0S&O574 N96:L>S.Z(0)16J(G)7A+JE"SH.M.\$=BR"+BYA""Z14JH3[4MG>SI#Z\$LHM#F?IYOY#? ...

#0/FI=VJNW39.O0EHC(V2\$)8E@H0'BR\$0.NF.19DJ W\*4Q\* M5ZVOHZ7XZ@^O2.BT1 121&3FHG!2\*BAK@7R=JH!OY.NJST+SVH!G MG^Q>VIV-LKK/GXX?> QVDFL/0IN# L&XQ?D6B?T J9?B+E1)=?41#0M@M/ M466H?N?PCIN WOE\_&2@=0PEM(BONTQE 2#GJIGIS7C^&B17 67%(-.X\$A M<LFI&X-PBG.UEEE?9GA9\_HL\_OJ?@ \$HLLJL <84TC.HWRIS=74P# HWLVOI.MTZ(-2<)<GKVM=1+IN+7<+GRVGE(L+YU.M.CD.LA+7>+L1.D22R6%Q.(IZH160I9#9 AX55FGM2%6E2H1U0V)Y7P.MKZJW%Q%Z-AI-C)H/HLL#89A0.WLZ?3XM!L+D.F-FC@OY%&H+M3UBA9Z+G#L.L1.F5L.WPVW#32H?#N&@AXUYC8V7XZV8FC&S2AYH?#&=M1#1B&1RS'KM: <?EFWUNJ@V\$JH1\$530/K+LRUT6C=#'HHUJGLR&9-R.MSB>YIX#X#>S^2?7&E\*1)LT3V?>\$\$%A 63"004XR^-.U&#=#@?76DIBNJ MJK=#6#>?>D4P2!HISK9+#+V=UCM@2DTH2IFSMI,B>H@O.ZV.A(2TVFMH+G;YO)1J1T+&V=F8173?>9J.P4^<Z?Z"X/MSTSR;SFH#LB#M#H@89#BR\*;DN8N M1&ZWR8(W=5?T.6IN=9F>HRGBN&A#SV@/L^A^&J8&@VPS&P&I+UF@?16H+&6#M+&B#CZ26'OPSLNAU#&ZLGVK\$00#<#ER #JY.PB.3%#HNA<.#7CW+VYO.2 M?>7^4ZIHG1L^L=SDA9G^0T214A+L@?PBK\$&GK7IBU/UFU;IN>+18 M#LZZZ?1X^Z>UUFKNX/ W.7?VKS8ALM1H.FOIN.#^LH+OBB7^+0+8.M<2\$30R7?P\_H\_@U@ MG.OF<^<90S"TB0E@F3.OH.H)4BEHXIQY/R.R.E.^<W>+170#41 M08KMA.6\$W!LH\_@.AFS2<5P!GNIO7ACH.G.%&8 Z>A7)2E0;4K;4K0'KR10HKIW7PY1.BN>#M^<R8JTI@=!86TP.LL5E2W1" M89.6!#F=I& )4V\_H<^W HW5B!\_@IY#M7;%RK+P.2 @Y%=WUSGPB(INHVV-MTE-? @U.PHF60I0\_@#F<^YXN9B2A0\$610?P4FKR1QZC2SR#E.F26EYF+W.MT=;W3.A?^71?27?FB4?42260+{S0A^W32+2(HKGV;EMV+GAU.M?6)20^<? H3JNYO604H#E8B8DC@<^<Z\$5.6%\$532^1.C^<UAMM^M.M52FN10V10Y5V0H" G9F?<2\_NH=RK0(HGG0G^>RIR#9%#6&0BZF7M^ZCFE.WFJF18>74L0.K4C(2.(O=2)A^\_1.HLH.L9.(MBI+CH6^G^&5 M80A.M&Bd3S10%RR2=GD+Y)6A"O#E=8\$1J@B.C+PZ?O@6T^ID62..MOP..A?>4^<@FRM..B?Y#X<@P.%145C5P.3KYV.SHYV=L>YJ6(C.3YK5V.M4BB>1^&1@O@L.CXDIDY^>33(RRAC<^IK;NGHIOEZUS^S85M^6L.C.J.M<1G^<4/W3YJG(L.LB0B6% CB>7R.BTH@P2C#RP+AWX&)NU(%N?7-W1.MKXB.VKFE75<6D.-P.E#RF?7WV^IZ(3\$B&CMO&8159Z-1A52'NS(I%8E.M1-WBW<2'3VAO?C^/O.SI)->ZV2H%AE9OJH50+ <?..7PQ7M1+X6P5CUBP.M9.K06'6HSS.O^<S.^>2VY>5^<6T@Y1#B=8KET+C#&Q2D0V.W.PW(C?7M.RM7C5E>V.A#<@P.E?BLC=GNWU+1M5!GIAE^>BKPZ-LI^#<8L+<6'RE MS?E74" PV<=40P@N\$W.4B?WJWJWC^<0N33+P5<3<0.RQ>R/S>Q5ALH.MCGFDX.W.J#HUP^CAUL.D132N.<39V&+UT^NH4NK>S+<4+P+DW>1 S ME^>1BV70.GE^B19U(HJ3? OOXE(AS1Y\$3@2AL9.P2H4 &Q^<=KJWA?T.ML>#M.ZL.BUN+M.WYS10?2A^G11?3V1.WQJ<1V^X4T^>DSIP.N594V%>GK.M.S.W+4HY?2.L @.N.R.D7^>9.1+P00.M44?F@C1<241A.1>+W/B^>K&VJ6=O^NHLX31?CGC.92BLUN@4TR^E.M7\$P3KVB^CG.T.#<4^4H@>2K!NEB18%)(PUAZ798KDR^&T.EO.(M1 M66.P=+02&6^=(EB)DK7^3ZFHZ>JM?D&DCL(=,;YIGH"\$GB&("R+A8ED.M.E9SR">1\$F817XOTXP^AK1^#1\$0<^<1^!#=#>DV4+^AB.J2+(V)LL.MO(HBOK?+>?EFZK.E) I#WQ&B.L)@>MXPX.L54A.S?7^40H<0YIHF1+ MA^H&C..5P45^M9S&I^&DZ=3=(?T1^1201V^L^F@#B3+>I#(8A#9IU14MFG.M=#KMKL-WZD;IQ?<+TKL@XJHFW: I#WQ(RAA)=@?FXN9J0)(PKL.MT.H4&N148>#%V3.JR.RD2&25.BLJZ1.KJHGXP49I<6.3.G1.D.&#WY1E^<O^&S&RG?O^<M.R=RMPS4@GFG+(C%#>@>400%\$?& (O=2)A^\_1.HLH.L9.(MBI+CH6^G^&5 M80A.M&Bd3S10%RR2=GD+Y)6A"O#E=8\$1J@B.C+PZ?O@6T^ID62..MOP..A?>4^<@FRM..B?Y#X<@P.%145C5P.3KYV.SHYV=L>YJ6(C.3YK5V.M4BB>1^&1@O@L.CXDIDY^>33(RRAC<^IK;NGHIOEZUS^S85M^6L.C.J.M<1G^<4/W3YJG(L.LB0B6% CB>7R.BTH@P2C#RP+AWX&)NU(%N?7-W1.MKXB.VKFE75<6D.-P.E#RF?7WV^IZ(3\$B&CMO&8159Z-1A52'NS(I%8E.M1-WBW<2'3VAO?C^/O.SI)->ZV2H%AE9OJH50+ <?..7PQ7M1+X6P5CUBP.M9.K06'6HSS.O^<S.^>2VY>5^<6T@Y1#B=8KET+C#&Q2D0V.W.PW(C?7M.RM7C5E>V.A#<@P.E?BLC=GNWU+1M5!GIAE^>BKPZ-LI^#<8L+<6'RE MS?E74" PV<=40P@N\$W.4B?WJWJWC^<0N33+P5<3<0.RQ>R/S>Q5ALH.MCGFDX.W.J#HUP^CAUL.D132N.<39V&+UT^NH4NK>S+<4+P+DW>1 S ME^>1BV70.GE^B19U(HJ3? OOXE(AS1Y\$3@2AL9.P2H4 &Q^<=KJWA?T.ML>#M.ZL.BUN+M.WYS10?2A^G11?3V1.WQJ<1V^X4T^>DSIP.N594V%>GK.M.S.W+4HY?2.L @.N.R.D7^>9.1+P00.M44?F@C1<241A.1>+W/B^>K&VJ6=O^NHLX31?CGC.92BLUN@4TR^E.M7\$P3KVB^CG.T.#<4^4H@>2K!NEB18%)(PUAZ798KDR^&T.EO.(M1 M66.P=+02&6^=(EB)DK7^3ZFHZ>JM?D&DCL(=,;YIGH"\$GB&("R+A8ED.M.E9SR">1\$F817XOTXP^AK1^#1\$0<^<1^!#=#>DV4+^AB.J2+(V)LL.MO(HBOK?+>?EFZK.E) I#WQ&B.L)@>MXPX.L54A.S?7^40H<0YIHF1+ MA^H&C..5P45^M9S&I^&DZ=3=(?T1^1201V^L^F@#B3+>I#(8A#9IU14MFG.M=#KMKL-WZD;IQ?<+TKL@XJHFW: I#WQ(RAA)=@?FXN9J0)(PKL.MT.H4&N148>#%V3.JR.RD2&25.BLJZ1.KJHGXP49I<6.3.G1.D.&#WY1E^<O^&S&RG?O^<M.R=RMPS4@GFG+(C%#>@>400%\$?& (O=2)A^\_1.HLH.L9.(MBI+CH6^G^&5 M80A.M&Bd3S10%RR2=GD+Y)6A"O#E=8\$1J@B.C+PZ?O@6T^ID62..MOP..A?>4^<@FRM..B?Y#X<@P.%145C5P.3KYV.SHYV=L>YJ6(C.3YK5V.M4BB>1^&1@O@L.CXDIDY^>33(RRAC<^IK;NGHIOEZUS^S85M^6L.C.J.M<1G^<4/W3YJG(L.LB0B6% CB>7R.BTH@P2C#RP+AWX&)NU(%N?7-W1.MKXB.VKFE75<6D.-P.E#RF?7WV^IZ(3\$B&CMO&8159Z-1A52'NS(I%8E.M1-WBW<2'3VAO?C^/O.SI)->ZV2H%AE9OJH50+ <?..7PQ7M1+X6P5CUBP.M9.K06'6HSS.O^<S.^>2VY>5^<6T@Y1#B=8KET+C#&Q2D0V.W.PW(C?7M.RM7C5E>V.A#<@P.E?BLC=GNWU+1M5!GIAE^>BKPZ-LI^#<8L+<6'RE MS?E74" PV<=40P@N\$W.4B?WJWJWC^<0N33+P5<3<0.RQ>R/S>Q5ALH.MCGFDX.W.J#HUP^CAUL.D132N.<39V&+UT^NH4NK>S+<4+P+DW>1 S ME^>1BV70.GE^B19U(HJ3? 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OOXE(AS1Y\$3@2AL9.P2H4 &Q^<=KJWA?T.ML>#M.ZL.BUN+M.WYS10?2A^G11?3V1.WQJ<1V^X4T^>DSIP.N594V%>GK.M.S.W+4HY?2.L @.N.R.D7^>9.1+P00.M44?F@C1<241A.1>+W/B^>K&VJ6=O^NHLX31?CGC.92BLUN@4TR^E.M7\$P3KVB^CG.T.#<4^4H@>2K!NEB18%)(PUAZ798KDR^&T.EO.(M1 M66.P=+02&6^=(EB)DK7^3ZFHZ>JM?D&DCL(=,;YIGH"\$GB&("R+A8ED.M.E9SR">1\$F817XOTXP^AK1^#1\$0<^<1^!#=#>DV4+^AB.J2+(V)LL.MO(HBOK?+>?EFZK.E) I#WQ&B.L)@>MXPX.L54A.S?7^40H<0YIHF1+ MA^H&C..5P45^M9S&I^&DZ=3=(?T1^1201V^L^F@#B3+>I#(8A#9IU14MFG.M=#KMKL-WZD;IQ?<+TKL@XJHFW: I#WQ(RAA)=@?FXN9J0)(PKL.MT.H4&N148>#%V3.JR.RD2&25.BLJZ1.KJHGXP49I<6.3.G1.D.&#WY1E^<O^&S&RG?O^<M.R=RMPS4@GFG+(C%#>@>400%\$?& (O=2)A^\_1.HLH.L9.(MBI+CH6^G^&5 M80A.M&Bd3S10%RR2=GD+Y)6A"O#E=8\$1J@B.C+PZ?O@6T^ID62..MOP..A?>4^<@FRM..B?Y#X<@P.%145C5P.3KYV.SHYV=L>YJ6(C.3YK5V.M4BB>1^&1@O@L.CXDIDY^>33(RRAC<^IK;NGHIOEZUS^S85M^6L.C.J.M<1G^<4/W3YJG(L.LB0B6% CB>7R.BTH@P2C#RP+AWX&)NU(%N?7-W1.MKXB.VKFE75<6D.-P.E#RF?7WV^IZ(3\$B&CMO&8159Z-1A52'NS(I%8E.M1-WBW<2'3VAO?C^/O.SI)->ZV2H%AE9OJH50+ <?..7PQ7M1+X6P5CUBP.M9.K06'6HSS.O^<S.^>2VY>5^<6T@Y1#B=8KET+C#&Q2D0V.W.PW(C?7M.RM7C5E>V.A#<@P.E?BLC=GNWU+1M5!GIAE^>BKPZ-LI^#<8L+<6'RE MS?E74" PV<=40P@N\$W.4B?WJWJWC^<0N33+P5<3<0.RQ>R/S>Q5ALH.MCGFDX.W.J#HUP^CAUL.D132N.<39V&+UT^NH4NK>S+<4+P+DW>1 S ME^>1BV70.GE^B19U(HJ3? OOXE(AS1Y\$3@2AL9.P2H4 &Q^<=KJWA?T.ML>#M.ZL.BUN+M.WYS10?2A^G11?3V1.WQJ<1V^X4T^>DSIP.N594V%>GK.M.S.W+4HY?2.L @.N.R.D7^>9.1+P00.M44?F@C1<241A.1>+W/B^>K&VJ6=O^NHLX31?CGC.92BLUN@4TR^E.M7\$P3KVB^CG.T.#<4^4H@>2K!NEB18%)(PUAZ798KDR^&T.EO.(M1 M66.P=+02&6^=(EB)DK7^3ZFHZ>JM?D&DCL(=,;YIGH"\$GB&("R+A8ED.M.E9SR">1\$F817XOTXP^AK1^#1\$0<^<1^!#=#>DV4+^AB.J2+(V)LL.MO(HBOK?+>?EFZK.E) I#WQ&B.L)@>MXPX.L54A.S?7^40H<0YIHF1+ MA^H&C..5P45^M9S&I^&DZ=3=(?T1^1201V^L^F@#B3+>I#(8A#9IU14MFG.M=#KMKL-WZD;IQ?<+TKL@XJHFW: I#WQ(RAA)=@?FXN9J0)(PKL.MT.H4&N148>#%V3.JR.RD2&25.BLJZ1.KJHGXP49I<6.3.G1.D.&#WY1E^<O^&S&RG?O^<M.R=RMPS4@GFG+(C%#>@>400%\$?& (O=2)A^\_1.HLH.L9.(MBI+CH6^G^&5 M80A.M&Bd3S10%RR2=GD+Y)6A"O#E=8\$1J@B.C+PZ?O@6T^ID62..MOP..A?>4^<@FRM..B?Y#X<@P.%145C5P.3KYV.SHYV=L>YJ6(C.3YK5V.M4BB>1^&1@O@L.CXDIDY^>33(RRAC<^IK;NGHIOEZUS^S85M^6L.C.J.M<1G^<4/W3YJG(L.LB0B6% CB>7R.BTH@P2C#RP+AWX&)NU(%N?7-W1.MKXB.VKFE75<6D.-P.E#RF?7WV^IZ(3\$B&CMO&8159Z-1A52'NS(I%8E.M1-WBW<2'3VAO?C^/O.SI)->ZV2H%AE9OJH50+ <?..7PQ7M1+X6P5CUBP.M9.K06'6HSS.O^<S.^>2VY>5^<6T@Y1#B=8KET+C#&Q2D0V.W.PW(C?7M.RM7C5E>V.A#<@P.E?BLC=GNWU+1M5!GIAE^>BKPZ-LI^#<8L+<6'RE MS?E74" PV<=40P@N\$W.4B?WJWJWC^<0N33+P5<3<0.RQ>R/S>Q5ALH.MCGFDX.W.J#HUP^CAUL.D132N.<39V&+UT^NH4NK>S+<4+P+DW>1 S ME^>1BV70.GE^B19U(HJ3? 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Unless otherwise specified, all dollar amounts (other than per share amounts) are referred to in thousands. </span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—The Unaudited Condensed Consolidated Financial Statements include the accounts of the Company and subsidiaries over which the Company has control. All intercompany transactions and balances have been eliminated. </span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—Basis of Presentation</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—The accompanying Unaudited Condensed Consolidated Financial Statements have been prepared in accordance with generally accepted accounting principles in the U.S. ("GAAP") from the Company's accounting records and reflect the consolidated financial position and results of operations for the three and nine months ended September 30, 2024 and 2023. Unless otherwise specified, all dollar amounts (other than per share amounts) are referred to in thousands. </span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">Accounting Principles</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—The Unaudited Condensed Consolidated Financial Statements and accompanying notes are prepared in accordance with GAAP. </span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES</span><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">Accounting Principles</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—The Unaudited Condensed Consolidated Financial Statements and accompanying notes are prepared in accordance with GAAP. </span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">Use of Estimates</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—The preparation of Unaudited Condensed Consolidated Financial Statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the Unaudited Condensed Consolidated Financial Statements and accompanying notes. Significant estimates and assumptions reflected in the Unaudited Condensed Consolidated Financial Statements include, but are not limited to, useful lives of property and equipment and intangible assets, valuation of deferred tax assets and liabilities, stock-based compensation, common stock valuation, operating lease right-of-use assets and liabilities, capitalization of internally developed software and associated useful lives, contingent liabilities, fair value of investments and valuation of goodwill and intangible assets from acquisitions. Actual results may differ materially from such estimates. Management </span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">believes that the estimates, and judgments upon which they rely, are reasonable based upon information available to them at the time that these estimates and judgments are made. To the extent that there are material differences between these estimates and actual results, the Company's Unaudited Condensed Consolidated Financial Statements will be affected. </span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">Cash and Cash Equivalents </span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—Cash consists primarily of cash on hand and bank deposits. Cash equivalents consist primarily of money market accounts with maturities of three months or less at the date of acquisition and are stated at cost, which approximates fair value. The Company maintains cash deposits with financial institutions that may exceed federally insured limits at times. </span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">Investments </span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—Investments consist primarily of corporate debt securities and U.S. Treasury securities. Management determines the appropriate classification of investments at the time of purchase based upon management's intent with regard to such investments. The Company's investments are classified as held-to-maturity at the time of purchase, and such classifications are reevaluated as of each balance sheet date. All highly liquid investments with an original maturity of 90 days or less when purchased are considered to be cash equivalents. Investments with remaining contractual maturities of one year or less from the balance sheet date, which are not considered cash equivalents, are classified as short-term investments, and those with remaining contractual maturities greater than one year from the balance sheet date are classified as long-term investments. All investments are recorded at amortized cost. Realized gains and losses on sales and maturities of investments are determined based on the specific identification method and are recognized in the Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income. </span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">We perform periodic evaluations to determine whether any declines in the fair value of investments below cost are other than temporary. The evaluation consists of qualitative and quantitative factors regarding the severity and duration of the unrealized loss, as well as the Company's ability and intent to hold the investments until a forecasted recovery occurs. The impairments are considered to be other than temporary if they are related to deterioration in credit risk or if it is likely that the underlying securities will be sold or mature prior to a full recovery of their cost basis. Other than temporary fair value impairments, if any, are determined based on the specific identification method and are reported in Other income (expense), net in the Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income. </span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">Acquisitions</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—The Company uses the acquisition method of accounting for business combination transactions, and, accordingly, recognizes the fair values of assets acquired and liabilities assumed in the Company's Unaudited Condensed Consolidated Financial Statements. The excess of the fair value of purchase consideration over the values of these identifiable assets and liabilities is recorded as goodwill. Transaction costs related to the acquisition of the acquired company are expensed as incurred. The allocation of fair values may be subject to adjustment after the initial allocation for up to a one-year period as more information becomes available relative to the fair values as of the acquisition date. The Unaudited Condensed Consolidated Financial Statements include the results of operations of any acquired company since the

acquisition date. </span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">Advertising Costs</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">Advertising costs were approximately \$18,149 and \$45,617 for the three and nine months ended September 30, 2024, and \$16,229 and \$39,528 for the three and nine months ended September 30, 2023, respectively, and are included within Sales and marketing in the Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">Income Taxes</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">The Company's provision for income taxes is computed by using an estimate of the annual effective tax rate, adjusted for discrete items taken into account in the relevant period, if any. Each </span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">quarter, the annual effective income tax rate is recomputed and if there are material changes in the estimate, a cumulative adjustment is made.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">Concentration of Credit Risk</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">The Company's concentration of credit risk relates to financial institutions holding the Company's cash and cash equivalents and platforms with significant accounts receivable balances and revenue transactions.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">The Company maintains cash deposits with financial institutions that may exceed federally insured limits at times. Management believes that the financial institutions that hold the Company's deposits are financially credit worthy and, accordingly, minimal credit risk exists with respect to those balances.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">The majority of revenue comes through the subscriptions and advertising streams, and payments are made to Duolingo through service providers. Two service providers, Apple and Google, accounted for 69.7% and 15.0% of total Accounts receivable as of September 30, 2024, respectively. Three service providers, Apple, Google, and Stripe accounted for 65.2%, 20.7%, and 10.7% of total Accounts receivable as of December 31, 2023, respectively.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">Impairment of long-lived assets</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">The Company reviews its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If the sum of the estimated undiscounted future cash flows expected to result from the use and eventual disposition of an asset is less than the carrying amount of the asset, an impairment loss is recognized. Measurement of an impairment loss is based on the fair value of the asset. No assets were impaired during the three and nine months ended September 30, 2024 and 2023.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">Allowance for Credit Losses</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">The Company evaluates its cash equivalents, accounts receivable and held-to-maturity marketable securities financial assets for expected credit losses. Expected credit losses represent the portion of the amortized cost basis of a financial asset that an entity does not expect to collect. An allowance for expected credit losses is meant to reflect a risk of loss even if remote, irrespective of the expectation of collection from a particular issuer or debt security. The Company has not historically experienced any credit losses on any of its financial assets.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">With respect to cash equivalents and accounts receivable, given consideration of their short maturity, lack of historical losses and the current environment, the Company concluded there is generally no expected credit losses for these financial assets. With respect to held-to-maturity marketable securities which are comprised of debt securities, the Company evaluates expected credit losses on a pooled basis based on issuer-type which have similar credit risk characteristics. The allowance for credit losses is immaterial for all periods presented.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">Recently Issued Pronouncements Not Yet Adopted</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">In November 2023, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2023-07, </span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">Segment Reporting (Topic 280), </span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">which improves reportable segment disclosure requirements, primarily through enhanced disclosures about significant segment expenses. The standard is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. Early adoption is permitted. The Company does not expect the adoption of the new guidance will have a material impact on the Company's consolidated financial statements and related disclosures.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">In December 2023, the FASB issued ASU 2023-09, </span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">Income Taxes (Topic 740) </span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">which includes improvements to income tax disclosures. The standard is effective for public entities in fiscal years beginning after December 15, 2024. Early adoption is permitted. The Company does not expect the </span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">adoption of the new guidance will have a material impact on the Company's consolidated financial statements and related disclosures.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">Recently Adopted Accounting Pronouncements</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">There are no recently adopted accounting pronouncements.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">Use of Estimates</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">The preparation of Unaudited Condensed Consolidated Financial Statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the Unaudited Condensed Consolidated Financial Statements and accompanying notes. Significant estimates and assumptions reflected in the Unaudited Condensed Consolidated Financial Statements include, but are not limited to, useful lives of property and equipment and intangible assets, valuation of deferred tax assets and liabilities, stock-based compensation, common stock valuation, operating lease right-of-use assets and liabilities, capitalization of internally developed software and associated useful lives, contingent liabilities, fair value of investments and valuation of goodwill and intangible assets from acquisitions. Actual results may differ materially from such estimates. Management </span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">believes that the estimates, and judgments upon which they rely, are reasonable based upon information available to them at the time that these estimates and judgments are made. 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All highly liquid investments with an original maturity of 90 days or less when purchased are considered to be cash equivalents. Investments with remaining contractual maturities of one year or less from the balance sheet date, which are not considered cash equivalents, are classified as short-term investments, and those with remaining contractual maturities greater than one year from the balance sheet date are classified as long-term investments. All investments are recorded at amortized cost. Realized gains and losses on sales and maturities of investments are determined based on the specific identification method and are recognized in the Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">We perform periodic evaluations to determine whether any declines in the fair value of investments below cost are other than temporary. The evaluation consists of qualitative and quantitative factors regarding the severity and duration of the unrealized loss, as well as the Company's ability and intent to hold the investments until a forecasted recovery occurs. The impairments are considered to be other than temporary if they are related to deterioration in credit risk or if it is likely that the underlying securities will be sold or mature prior to a full recovery of their cost basis. Other than temporary fair value impairments, if any, are determined based on the specific identification method and are reported in Other income (expense), net in the Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">Acquisitions</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">The Company uses the acquisition method of accounting for business combination transactions, and, accordingly, recognizes the fair values of assets acquired and liabilities assumed in the Company's Unaudited Condensed Consolidated Financial Statements. The excess of the fair value of purchase consideration over the values of these identifiable assets and liabilities is recorded as goodwill. Transaction costs related to the acquisition of the acquired company are expensed as incurred. The allocation of fair values may be subject to adjustment after the initial allocation for up to a one-year period as more information becomes available relative to the fair values as of the acquisition date. The Unaudited Condensed Consolidated Financial Statements include the results of operations of any acquired company since the acquisition date.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">Advertising Costs</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">Advertising costs were approximately \$18,149 and \$45,617 for the three and nine months ended September 30, 2024, and \$16,229 and \$39,528 for the three and nine months ended September 30, 2023, respectively, and are included within Sales and marketing in the Unaudited Condensed Consolidated Statements of Operations and Comprehensive Income.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">Income Taxes</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">The Company's provision for income taxes is computed by using an estimate of the annual effective tax rate, adjusted for discrete items taken into account in the relevant period, if any. Each </span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">quarter, the annual effective income tax rate is recomputed and if there are material changes in the estimate, a cumulative adjustment is made.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">Concentration of Credit Risk</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">The Company's concentration of credit risk relates to financial institutions holding the Company's cash and cash equivalents and platforms with significant accounts receivable balances and revenue transactions.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">The Company maintains cash deposits with financial institutions that may exceed federally insured limits at times. Management believes that the financial institutions that hold the Company's deposits are financially credit worthy and, accordingly, minimal credit risk exists with respect to those balances.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">Impairment of long-lived assets</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">The Company reviews its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If the sum of the estimated undiscounted future cash flows expected to result from the use and eventual disposition of an asset is less than the carrying amount of the asset, an impairment loss is recognized. Measurement of an impairment loss is based on the fair value of the asset.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">Allowance for Credit Losses</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">—</span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">The Company evaluates its cash equivalents, accounts receivable and held-to-maturity marketable securities financial assets for expected credit losses. Expected credit losses represent the portion of the amortized cost basis of a financial asset that an entity does not expect to collect. An allowance for expected credit losses is meant to reflect a risk of loss even if remote, irrespective of the expectation of collection from a particular issuer or debt security. The Company has not historically experienced any credit losses on any of its financial assets.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">With respect to cash equivalents and accounts receivable, given consideration of their short maturity, lack of historical losses and the current environment, the Company concluded there is generally no expected credit losses for these financial assets. With respect to held-to-maturity marketable securities which are comprised of debt securities, the Company evaluates expected credit losses on a pooled basis based on issuer-type which have similar credit risk characteristics. The allowance for credit losses is immaterial for all periods presented.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:700;line-height:130%">Recently Issued Pronouncements Not Yet Adopted</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">In November 2023, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2023-07, </span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">Segment Reporting (Topic 280), </span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">which improves reportable segment disclosure requirements, primarily through enhanced disclosures about significant segment expenses. The standard is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. Early adoption is permitted. The Company does not expect the adoption of the new guidance will have a material impact on the Company's consolidated financial statements and related disclosures.</span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">In December 2023, the FASB issued ASU 2023-09, </span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">Income Taxes (Topic 740) </span><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">which includes improvements to income tax disclosures. The standard is effective for public entities in fiscal years beginning after December 15, 2024. Early adoption is permitted. The Company does not expect the </span></div><div style="margin-bottom:9pt"><span style="color:#000000;font-family:'Arial',sans-serif;font-size:10pt;font-weight:400;line-height:130%">adoption of the new guidance will have a material impact on the Company's consolidated financial statements and related disclosures.</span></div></div></div>

































































proceedings, regardless of the merits, is inherently uncertain. The Company is not currently party to any material legal proceedings.

2024-2023

Letters of Credit

The Company has a standby letter of credit obtained in connection with an operating lease. This letter of credit acts as security for the faithful performance by us of all terms, covenants and conditions of the lease agreement. The amount of the letter of credit is equal to six months rent of \$442, totaling \$2,656. The cash collateral for the letter of credit has been recognized as restricted cash in the Unaudited Condensed Consolidated Balance Sheet and is equivalent to 103% of the letter of credit and totaled \$2,735. For more information, refer to Note 8, Leases.

EMPLOYEE BENEFIT PLAN

The Company sponsors a profit sharing plan with a 401(k) feature, the Duolingo Retirement Plan (the "Plan"), for eligible employees. The current plan, effective January 1, 2024, provides for Company safe harbor matching contributions of 100% of the first 4% of the employees' elective deferrals and 50% of the next 2%, with vesting starting upon the first day of employment. The Company also has the option to make discretionary matching or profit sharing contributions. The Company made safe harbor matching contributions of approximately \$1,807 and \$1,563 during the three months ended September 30, 2024 and 2023, respectively, and \$5,095 and \$4,433 during the nine months ended September 30, 2024 and 2023, respectively. The Company did not make any discretionary matching or profit sharing contributions during the three and nine months ended September 30, 2024 or 2023.

EARNINGS PER SHARE

Basic and diluted net income per share attributable to common stockholders is presented in conformity with the two-class method required for participating securities.

Basic net income per share attributable to common stockholders is calculated by dividing the net income by the weighted-average number of shares of common stock outstanding during the period, less shares subject to repurchase. The diluted net income per share attributable to common stockholders is calculated by giving effect to all potential dilutive common stock equivalents outstanding for the period. The rights, including the liquidation and dividend rights, of the holders of Class A and Class B common stock are identical, except with respect to voting and conversion. Each share of Class A common stock is entitled to one vote per share and each share of Class B common stock is entitled to 20 votes per share. Each share of Class B common stock is convertible into a share of Class A common stock voluntarily at any time by the holder, and automatically upon certain events. The Class A common stock has no conversion rights. As the liquidation and dividend rights are identical for Class A and Class B common stock, the undistributed earnings are allocated on a proportional basis and the resulting net income per share attributable to common stockholders will, therefore, be the same for both Class A and Class B common stock on an individual or combined basis.

	2024	2023
Basic	37.361%	0.1%
Diluted	0.441%	0.1%
Weighted-average number of shares	13,803%	13,803%
Net income	23,360	3,950
Weighted-average shares	74,667	41,719
Basic	312.5	94.7
Diluted	312.5	94.7

Effect of dilutive securities

Dilutive effect of stock options outstanding (1)

Denominator

Weighted-average shares in computing net income per share attributable to Class A and Class B common stockholders, basic and diluted

43,707

41,190

41,190

43,253

3,004

2,054





2024. The estimated dilutive effect is calculated as the number of shares expected to be issued upon vesting or exercise, adjusted for the strike price proceeds that are received by the Company and assumed to be used to repurchase shares of Duolingo common stock.

EVENTS

On September 10, 2024, Dr. Severin Hacker, Chief Technology Officer and Director, entered into a 10b5-1 sales plan (the "Hacker 10b5-1 Sales Plan") intended to satisfy the affirmative defense of Rule 10b5-1(c) of the Exchange Act and providing for the potential exercise of vested stock options and the associated sale of up to 504,248 shares of the Company's Class A common stock. The Hacker 10b5-1 Sales Plan will remain in effect until the earlier of (1) December 4, 2025, (2) the date on which all trades set forth in the Hacker 10b5-1 Sales Plan have been executed, or (3) such time as the Hacker 10b5-1 Sales Plan is otherwise terminated according to its terms. September 10, 2024 Dr. Severin Hacker Chief Technology Officer and Director true 504248 December 4, 2025 false false