



N E X A



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8pt Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum is simply dummy text.

Industry Overview



BARRIERS TO ENTRY

User Base

Large, global user base creates network effects and valuable data for personalised learning experiences.

Brand Recognition and IP

Strong brand and intellectual property provide competitive edge and protect against replication.

Content & Curriculum

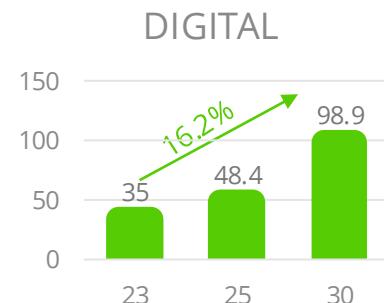
High-quality, diverse courses require significant time and investment, setting a high entry barrier for competitors.

GROWTH DRIVERS

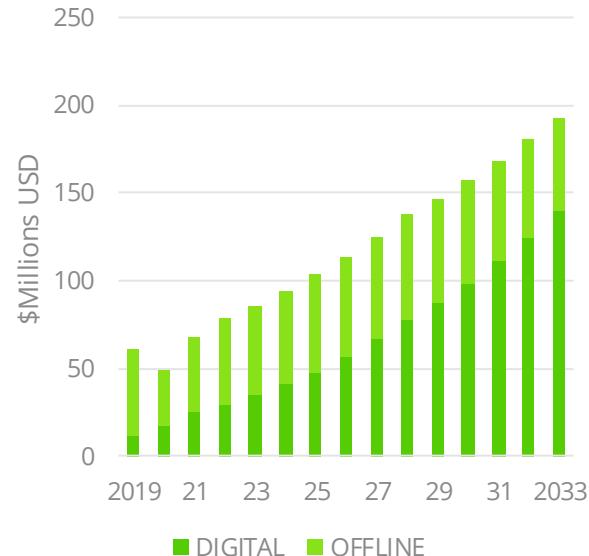
1. Growing global middle class
2. Rapid Technological Advancement

16.2% CAGR

DIGITAL CAGR: Advances in AI, Covid, Internet and Phone penetration all push consumers to **digital language learning**



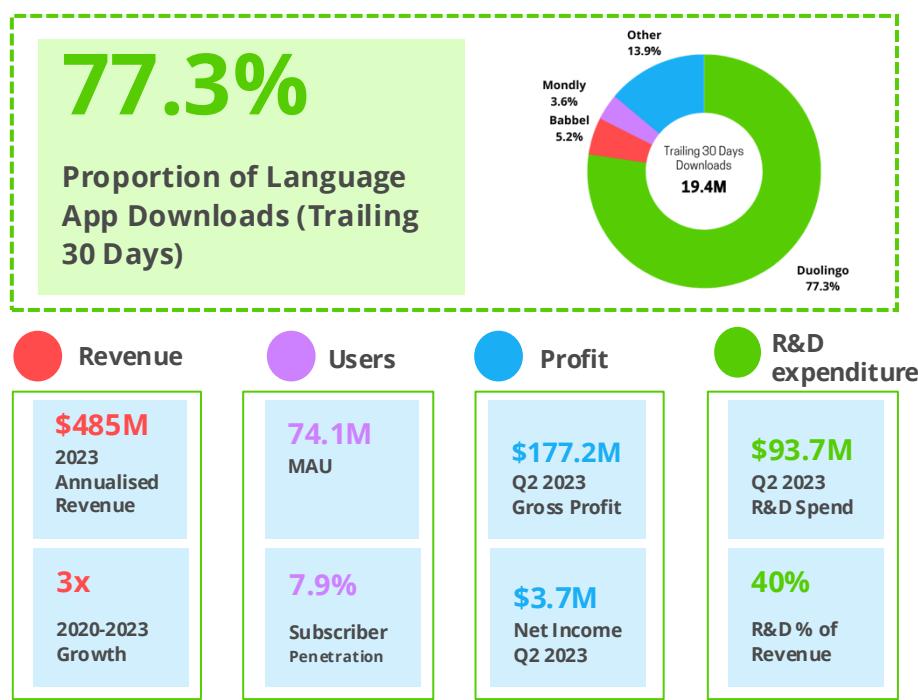
Global Language Learning Market



DuoLingo Overview



Duolingo is an app that aims to make language learning accessible and engaging through interactive lessons available on mobile and web platforms.



COMPETITIVE ADVANTAGE:

GAMIFICATION: Fostering motivation, community, consistent usage through features (winning streaks, leader-boards, virtual currency, badges, action-reward mechanisms, teamwork challenges), ultimately creating a fun and approachable learning experience

DATA DRIVEN COMPANY: Improvements based on data, using cost-benefit prioritization rules for experiments and a data-driven approach to enhance language teaching, adapting to global language trends, noting patterns in English proficiency, language growth, and study time preferences across countries.

BRANDING/SOCIAL FIRST MARKETING: acts as a significant barrier for competitors, leveraging a social-first marketing strategy, user-generated content, and AI technologies to enhance personalization and engagement, resulting in increased brand awareness and decreased marketing expenses, with insights from global brand perception informing their strategies.



Competitive Landscape



MAIN COMPETITORS



Languages Offered



36 +

25

14

Cost (\$ per Year)



\$0

\$120

\$85

SECONDARY COMPETITORS

#1 Grossing Education App

70M+ Monthly Active Users



OBSCURITY:

Duolingo offers less widely studied options:

Hawaiian

Gaelic

Navajo

Welsh

Dothraki + High Valyrian
(Game of Thrones)

BARRIERS TO ENTRY:

Content and Curriculum

Creating high-quality language courses and content requires significant resources and expertise



User Base

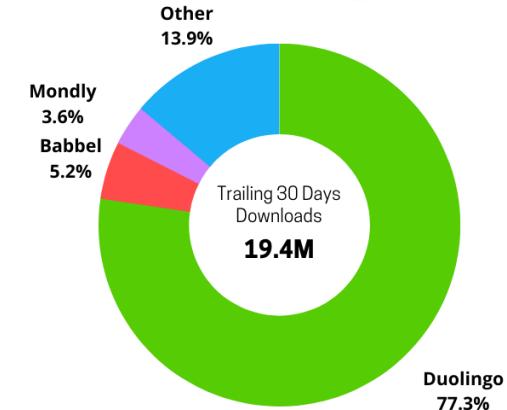
Building a user base of Duolingo's size and engagement levels would take time and resources

Technology and Algorithms

Duolingo's data driven approach to language learning relies on complex algorithms and technology.

Brand Recognition

Duolingo's strong brand reputation and user trust serve as a barrier



Management and Culture



93%

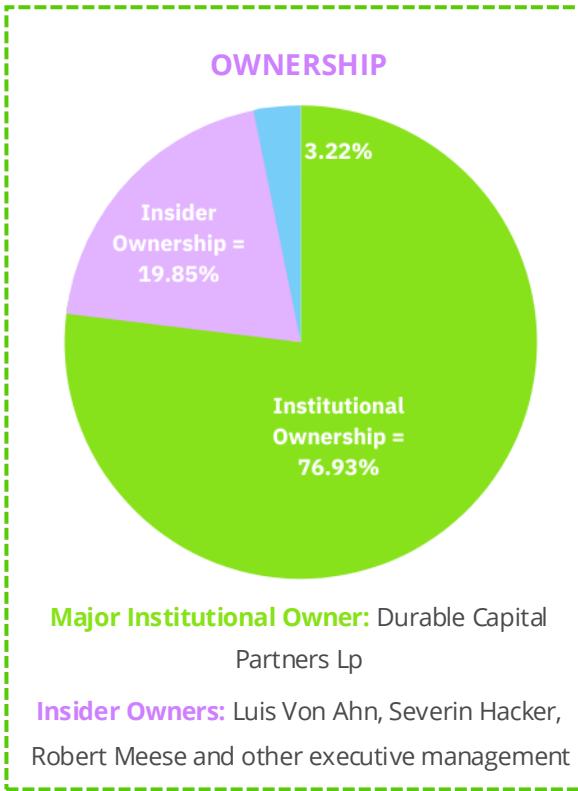
Approval Rating

Luis Von Ahn, Co-Founder,
CEO & Board Chairman



"When there's a hole in the organisation that needs to be filled, it's better to have a hole than an a-hole"

Luis Von Ahn



DUOLINGO'S MISSION:

Develop the best education in the world and make it universally available.

Key Views:

Building + maintaining an enjoyable, inclusive work environment. Collaborate with kindness, celebrate wins together + make ample time to unwind + explore new things.

Focus Areas:

Talent Engagement, Diversity and Inclusion, Employee development, Transparency & Communication

89% would recommend Duolingo as an Employer

ESG



CARBON FOOTPRINT REDUCTION:

Implement energy-efficient technologies
Transition to renewable energy + optimize data centers

FLEXIBLE WORK SCHEDULE:

Offer 3+2 Schedule with two days of remote work
Reduce commuting emissions + encourage flexibility

CARBON OFFSETS:

Purchase carbon offsets from reputable sources
(Terrapass and Pachama)
Offset will neutralize emissions



DIVERSITY AND INCLUSION:

50% of employees are female
Multilingual workforce → 30 languages
Comprehensive DEIB plan → Thrive program and resource groups

EDUCATION ACCESS:

Partnered with Ukraine Global Scholars
The Duolingo English Test (DET)

DATA PRIVACY AND SECURITY:

GDPR compliance since 2018
SOC 2 Type I Attestation in 2023
Robust data protection measures + employee training



BOARD DIVERSITY:

Promote diverse + independent leaders
Enhance governance practices
Drive accountability and fresh perspectives



ETHICAL LEADERSHIP:

Transparency with stakeholders
Commitment to ethical behaviour

SHAREHOLDER ENGAGEMENT:

Emphasise open communication + transparency
Regular two-way conversations
Biannual employee engagement surveys



Data Driven Decision Making



Duolingo's robust **data-driven culture** enables **unparalleled agility** and continuous product refinement, **solidifying its competitive edge** in the ed-tech and language learning market.



300+

The number of internal A/B tests run monthly. DuoLingo has a mature data driven culture which allows it to be agile and iterate quickly.

74x

DuoLingo has 74x the MAU of its next largest competitor, Babbel.

Competitors cannot achieve the same level of agility.



duolingo analytics

SEGMENTATION

FUNNELS

FORMULAS

EXPERIMENTS

Using UTC



Experiment Analysis Report: learning_multiplier_and_decay_web

Port of skill levels multiplier + decay to web.
Generated Oct. 13, 2019 at 02:47 AM UTC-04:00

Unique User Active



"The more users we have, the faster we can experiment, the faster we can iterate, **the better product we can build**, and then the users will come."

Karin Tsai, Senior Director of Engineering



Artificial Intelligence



Capitalising on generative AI, Duolingo has the potential to *increase (A) efficacy and (B) user retention*, thus benefiting the bottom line.



Machine Learning

USER INTERACTION:

Indirect, ML optimises “background” variables such as which exercises to serve and when to send push notifications.

Growth effect:

Utilisation of ML enhances learning efficacy, a key criticism of DuoLingo, increase user retention and gain data driven insights.

NEW INITIATIVE:

Duolingo MAX:

Powered by GPT-4 AI, Max introduces cutting-edge features like 'Explain My Answer' and 'Roleplay,' offering personalized language training and real-world conversational practice. Initially targeting English speakers learning Spanish and French.

Generative AI

USER INTERACTION:

Direct, **Gen AI** offers novel and brand new features which increase the value of the product to the customer.

Growth effect:

Exercises are more realistic, thus increasing efficacy. New and Unique features increase competitive advantage and boost retention.



Revenue & Margin Forecast



REVENUE FORECAST

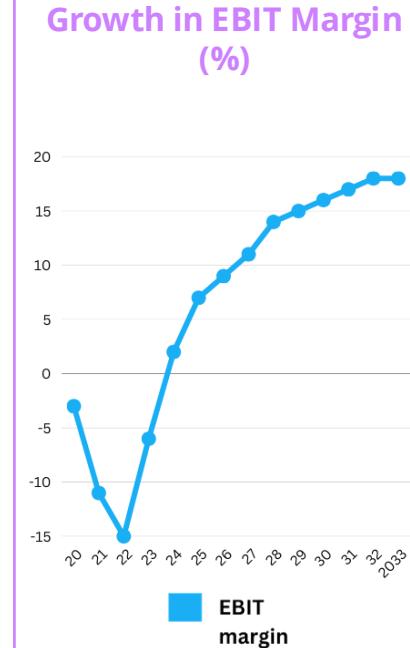
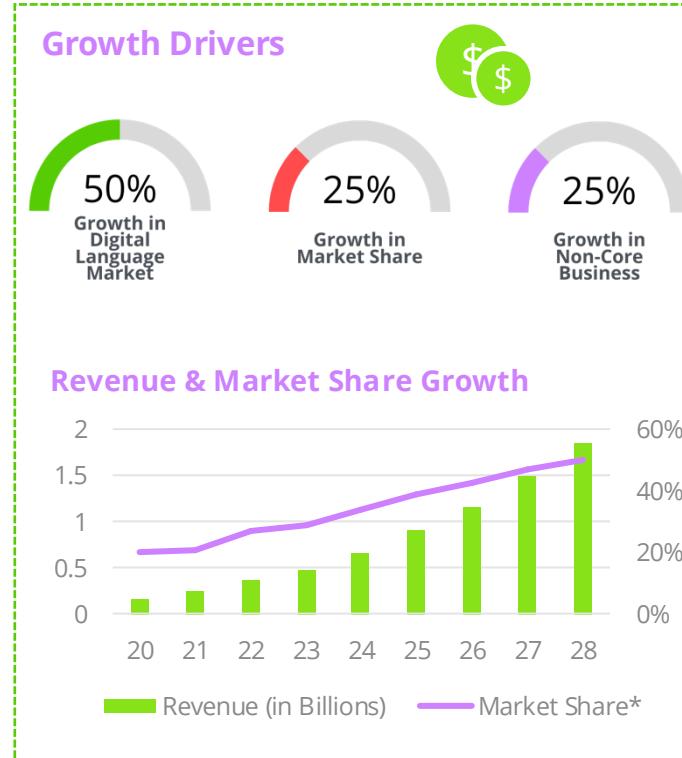
Market Share Method:

1. Use Previously Projected Market Growth
2. Forecast Market Share based on historical growth and DuoLingo's growth opportunities
3. Estimate Revenue as a proportion of Market

MARGIN GROWTH

KEY CHANGES:

1. Rapidly Growing Revenues
2. Growth in R&D outpaced by growth in Revenue
3. Slowing S&M expense





Valuation



\$171	22.8%	33%
Target Price	Upside on VWAP	10 year FCF CAGR

	Bear	Base	Bull
Probability	10%	65%	25%
Price	\$127	\$164	\$208
Upside/downside	-9.0%	17.5%	49.1%



Football Field Analysis

1 Month VWAP:
\$139.5

Target Price:
\$164.04



Sensitivity Analysis

	WACC	12.40%	13.40%	14.40%	15.40%	16.40%	17.40%
Terminal Exit Multiple							
4.5	\$ 177.07	\$ 164.66	\$ 143.00	\$ 143.00	\$ 133.56	\$ 124.92	
5	\$ 189.82	\$ 176.33	\$ 164.03	\$ 152.80	\$ 142.55	\$ 133.17	
5.5	\$ 202.58	\$ 188.00	\$ 174.72	\$ 162.60	\$ 151.54	\$ 141.42	
6	\$ 215.33	\$ 199.67	\$ 185.41	\$ 172.40	\$ 160.53	\$ 149.68	
6.5	\$ 228.08	\$ 211.34	\$ 196.10	\$ 182.20	\$ 169.52	\$ 157.93	
7	\$ 240.83	\$ 223.02	\$ 206.79	\$ 192.00	\$ 178.51	\$ 166.19	
7.5	\$ 253.59	\$ 234.69	\$ 217.48	\$ 201.80	\$ 187.50	\$ 174.44	

IRR and Exit



13.2x



6x

Current EV/Revenue multiple Exit EV/Revenue multiple

Based on a 4-year time horizon and a 1-month VWAP of \$139.5, Duolingo shows an IRR of 20.9% per annum.

Exit Multiple Rationale

Expected IRR (2027 Exit)

Strong Market Growth Expectations



Based on strong growth in revenue and profit metrics the market has priced in high growth rates, **inflating current multiples**

Higher than Comparable Companies



In 2023, Software Companies averaged revenue multiples of 2.3-2.6

Strong Growth Opportunity



A combination of AI implementation, expansion into new markets, margin expansion and strong growth through 2030



SCENARIO	EXIT SHARE PRICE (2027)	IRR (%)
BEAR	230.93	13.43
BASE	298.03	20.9
BULL	378.73	28.36

Scenario Analysis



THREE SCENARIOS

We considered three scenarios for the holding period:

BULL

Macroeconomics: Easing inflation lowers operational costs, freeing up capital for growth initiatives.

AI: Enhanced user engagement from AI boosts conversion to paid subscriptions, driving high revenue growth.

New Markets: Quick success in maths and literacy expands revenue and offers cross-selling opportunities.

Margins: Improved via AI-optimized marketing and higher customer retention.

BASE

Macroeconomics: Mild benefit from easing inflation, with balanced operational costs and user spend.

AI: Modest improvements in engagement and conversion rates.

New Markets: Steady but unremarkable growth in maths and literacy segments.

Margins: Stable, with benefits from lower inflation offset by new investments.

BULL

Macroeconomics: Despite easing inflation, competitive pressures limit pricing power.

AI: Unexpected challenges, such as privacy issues or low engagement, increase costs.

New Markets: Slow adoption in maths and literacy due to strong competition.

Margins: Reduced due to failed new market entries and costly AI implementations

IMPACT ON DCF MODEL

Three parameters were modified for each case as below:

	BEAR	BASE	BULL
WACC	16.4%	15.4%	14.4%
EXIT MULTIPLE	5X	6X	7X
REVENUES AS % OF BASE CASE	90%	100%	110%



General Risks



SOCIAL

USER ENGAGEMENT:

Decline in interest could negatively impact its growth



COMPETING TECHNOLOGIES:

Emergence of VR and AR learning could reduce relevance



DATA SECURITY:

Hackers **have leaked personal information of 2.6M MAU** → posing risk of targeting phishing attacks and data breaches



ECONOMIC

ECONOMIC DOWNTURN:

Economic recessions mean consumers **cut costs** on **discretionary spending**



PRICE SENSITIVITY:

Users may be price sensitive, affecting Duolingo's ability to increase premium fees



LEGAL

DATA PRIVACY REGULATIONS:

Stricter privacy laws (GDPR, CPRA), may impact the ability to collect and use data for personalisation



INTELLECTUAL PROPERTY:

Legal disputes over content ownership/copyrights could disrupt operations



INTERNATIONAL OPERATIONS:

Additional risk in **international markets** → compliance, currency fluctuations, geopolitical instability

MITIGATIONS:

Constant innovation, Diversification, Data Security Measures, Compliance, Legal Expertise, Risk Management in International markets

Business Risks



Market Share & Profitability

CYCICAL DEMAND:

Economic cycles may impact language learning demand



COST ESCALATION:

Rising operational costs can squeeze profitability



MITIGATIONS:

Differentiation, Cost Management

Operational

TECHNICAL ISSUES:

Downtime, bugs, or data breaches harm user trust



TALENT & LEADERSHIP RISK

Key personnel losses and competency gaps → replacing with the correct fit



MITIGATIONS:

Robust IT Infrastructure, Succession Planning



Marketing & Mission Based Metrics

FLUCTUATING METRICS:

Quarterly results may vary due to marketing, international expansion and technology



MISSION-BASED RISKS:

Maintaining a free version aligned with Duolingo's mission may challenge revenue and trust



MITIGATIONS:

Predictive Analytics, Clear Communication



Recommendation



\$150

Current Price



BUY



\$171

Upside on VWAP

Thesis



Strong growth opportunities

Valuation



22.8% upside and 20.9% expected IRR

Risks



Minimal risks and strong mitigations

Appendix



Main Deck

1. [Executive summary](#)
2. [Industry Overview](#)
3. [DuoLingo Overview](#)
4. Duolingo Business Model
5. [Competitive Landscape](#)
6. [Management & Culture](#)
7. [ESG](#)
8. [Investment Thesis 1](#)
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11. [Revenue Forecast](#)
12. [Valuation](#)
13. [IRR](#)
14. [Scenario Analysis](#)
15. [General Risks](#)
16. [Business Risks](#)
17. [Recommendations](#)



Appendix A: Hamilton Helmer's Seven powers



BADGES INCREASED PURCHASES BY 13%

INCREASED NUMBER OF FRIENDS ADDED BY 16%

SOCIAL FIRST MARKETING

- Organic user acquisition that has a focus on virality
 - Utilise pop culture and social media
 - Low-cost, indirect sales strategy
- Drives engagement and offers global brand perception insights



¾ OF DUOLINGOS TEAM WORKS ON
ENGINEERING, DESIGN, PRODUCT OR
RESEARCH

Counter Positioning

Branding

Cornered Resource



GAMIFICATION

- Drive consistent usage habits through competitiveness
 - Sustaining interest
- Provides a judgment-free environment for learning
- Users are motivated by action-reward mechanisms
- **STREAK** = goal, **XP** = progress tracking, **TEAM PLAY** = social aspect



ONE OF THE MOST FOLLOWED BRANDS
ON TIKTOK (7.5M)

ACHIEVED 50% YoY GROWTH IN SOCIAL
MEDIA IMPRESSIONS



DATA DRIVEN COMPANY

- Emphasise continuous product improvement
- Enhance language teaching and adapt to global language trends
- Use simple rules to prioritise experiments, assess potential impact and experiment duration
- Global brand perception insights + valuable metrics

Appendix B: WACC



1 / 1

CAPM		Notes							
rf:	4.27%	10 year yield on US federal reserve treasury bond							
Market Premium:	5.70%	return on S&P500 index less RFR							
Beta:	1.96	Average Beta of last 13 months							
Cost of Equity	15.44%								
Cost of Debt	n/a								
WACC	15.44%								
LIABILITIES, CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY									
Current liabilities									
Accounts payable									
Deferred revenues									
Income tax payable									
Accrued expenses and other current liabilities									
Total current liabilities									
Long-term obligation under operating leases									
Total liabilities									
\$ 1,504 \$ 7,818									
128,194 98,267									
92 113									
17,536 12,933									
147,326 119,131									
25,505 29,124									
172,831 148,255									
Beta calculation									
Year-Month	Beta	S&P500 Return	Duolingo Return	Duolingo Risk Adjusted Return	Notes				
1/9/2022	1.26	0.52	-0.22	-0.07					
1/10/2022	1.33	-0.21	1.00	0.18					
1/11/2022	0.99	-0.25	0.76	0.17					
1/12/2022	1.81	0.31	0.02	0.01					
1/1/2023	0.87	-0.37	-1.55	-0.76					
1/2/2023	1.13	0.22	-0.54	-0.10					
1/3/2023	1.17	-0.18	-1.06	-0.37					
1/4/2023	0.56	-0.05	0.15	0.09					
1/5/2023	2.96	-0.05	-0.37	-0.08					
1/6/2023	3.08	-0.26	0.43	0.13					
1/7/2023	5.15	-0.13	-0.27	-0.07	Especially high, explored in sensitivities				
1/8/2023	2.98	0.06	0.15	0.05					
1/9/2023	2.18	0.48	-1.58	-1.08					
		1.96							

Appendix C: Sensitivity Analysis



WACC + Exit multiple

	WACC	12.40%	13.40%	14.40%	15.40%	16.40%	17.40%	
Terminal	Exit	4.5	\$ 177.07	\$ 164.66	\$ 143.00	\$ 143.00	\$ 133.56	\$ 124.92
		5	\$ 189.82	\$ 176.33	\$ 164.03	\$ 152.80	\$ 142.55	\$ 133.17
		5.5	\$ 202.58	\$ 188.00	\$ 174.72	\$ 162.60	\$ 151.54	\$ 141.42
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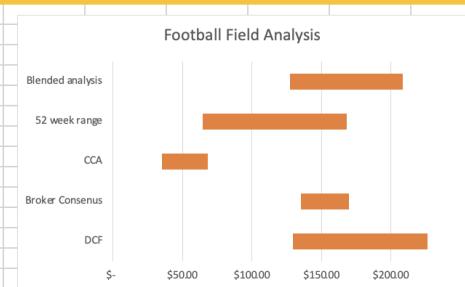
Case Reconciliation

Notes:	Scale factor	Parameters	Original Price	Final Price	
	Approximate bear case:	90% 16.4%, 5x	\$ 152.80	\$ 137.52	Above sensitivity is conducted on base case revenues, this is an approximate reconciliation to bear and bull cases which have revenues adjusted as well
	Approximate bull case:	110% 15.4%, 7x	\$ 206.79	\$ 227.47	

Appendix D: Football Field



Broker Consensus		Target Price 2023		
Broker				
Needham & company		\$ 160		
Piper Sandler		\$ 170		
Barclays		\$ 149		
Bank of America		\$ 160		
Evercore		\$ 135		
Average Target Price		\$ 154.8		
Blended analysis				
Method	Min Value	Base Value	Max Value	Weighting
DCF	\$ 129.45	\$ 172.40	\$ 226.04	75%
Broker Consensus	\$ 135.00	\$ 154.80	\$ 170.00	20%
CCA2 (software)	\$ 68.27	\$ 84.47	\$ 105.81	4%
CCA1 (edutech)	\$ 35.18	\$ 40.31	\$ 48.99	1%
Blended Target Price		\$ 127.17	\$ 164.04	\$ 208.25
Football field analysis				
Method	Minumum	Difference	Maximum	
DCF	\$ 129.45	\$ 96.59	\$ 226.04	
Broker Consensus	\$ 135.00	\$ 35.00	\$ 170.00	
CCA	\$ 35.18	\$ 33.10	\$ 68.27	
52 week range	\$ 64.73	\$ 103.67	\$ 168.40	
Blended analysis	\$ 127.17	\$ 81.08	\$ 208.25	
1 Month VWAP		139.5		



Appendix E: DCF1 Part 1





Appendix E: DCF1 Part 2



4 year exit price and IRR											
	Discounted cash flows					\$ 450.04	\$ 450.68	\$ 482.33	\$ 503.10	\$ 520.13	\$ 530.26
		EV	\$ 16,716.35								
		Cash	\$ 1,765.52								
Current Share price		Equity Value	18481.87								
139.5		#shares	48.8								
		Fair value	378.7269113								
2027 exit	2023	2024	2025	2026	2027						
Cash flows	\$ (139.50)					378.7269113					
NPV	\$ 0.00										
4 Year IRR	28.36%	2023	2024	2025	2026	2027	\$ 450.04				
2026 Exit	\$ (139.50)										
2025 Exit	2023	2024	2025	2026	2027						
	\$ (139.50)										

(Amounts in millions, except share price)

	Price as of June 30, 2023	Weighted-average exercise price	Shares
Share price	\$142.94		
Common stock outstanding as of June 30, 2023	41.5		
Founder awards (1)	1.8		
Dilutive effect of stock options outstanding (2)	\$ 15.31	3.1	
RSUs outstanding	2.4		
Total estimated diluted shares outstanding	48.8		

BEAR CASE			BASE CASE			BULL CASE		
WACC		16.40%	WACC		15.40%	WACC		14.40%
Terminal Exit Multiple		5	Terminal Exit Multiple		6	Terminal Exit Multiple		7
Revenues as % of base case		90%	Revenues as % of base case		100%	Revenues as % of base case		110%
Fair Value			Fair Value			Fair Value		
EV		5638.63	EV		7734.47	EV		10352.25
Cash		678.67	Cash		678.67	Cash		678.67
(Total Debt)		0	(Total Debt)		0	(Total Debt)		0
Equity Value		6317.3	Equity Value		8413.14	Equity Value		11030.92
Diluted Shares Outstanding		48.8	Diluted Shares Outstanding		48.8	Diluted Shares Outstanding		48.8
Value per share		129.45	Value per share		172.40	Value per share		226.04

Appendix F: Financial Statements



Metrics		2022		2023		% growth
DAU		13200	21400	62%		
MAU		49500	74100	50%		
DAU/MAU		27%	29%	8%		
Subscriber Penetration		0.072	0.079	10%		
Income Statement						
		Six Months Ended June 30, 2022	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022	Six Months Ended June 30, 2023	
Item						Item
Revenues	\$46,123	\$114,163	\$109,800	\$125,500	\$109,803	Revenues
Cost of Revenues	\$20,023	\$31,156	\$45,350	\$65,520	\$45,351	Cost of Revenues
Gross Profit	\$46,100	\$83,007	\$24,247	\$17,772	\$20,222	Gross Profit
Total Operating Expenses	\$50,473	\$96,899	\$15,128	\$19,060	\$15,128	Total Operating Expenses
Loss from Operations	(\$2,373)	(\$13,892)	(\$26,881)	(\$13,944)	(\$26,881)	Loss from Operations
Other Expense, net/(Other Income)	\$202	\$262	(\$351)	(\$96)	(\$351)	Other Expense, net/(Other Income)
Loss before Interest and Income Taxes			\$20,7732	\$13,9470		Loss before Interest and Income Taxes
Interest Income			\$702	\$13,182	\$13,182	Interest Income
Income (Loss) before Income Taxes	(\$2,171)	(\$13,630)	(\$27,030)	(\$288)	(\$27,030)	Income (Loss) before Income Taxes
(Benefit) Provision for Income Taxes	\$22	\$18	\$169	(\$1,431)	(\$1,431)	(Benefit) Provision for Income Taxes
Nethincome (Loss) and Comprehensive Income (L)	(\$2,149)	(\$13,612)	(\$27,199)	\$1,143	\$1,143	Nethincome (Loss) and Comprehensive Income (L)
Netincome (Loss) Per Share Attributable to Class Aand Class B Common Stockholders, Basic	(\$0.16)	(\$1.05)	(\$0.70)	\$0.03	\$0.03	Netincome (Loss) Per Share Attributable to Class Aand Class B Common Stockholders, Basic
Netincome (Loss) Per Share Attributable to Class Aand Class B Common Stockholders, Diluted	(\$0.18)	(\$1.05)	(\$0.70)	\$0.02	\$0.02	Netincome (Loss) Per Share Attributable to Class Aand Class B Common Stockholders, Diluted
Year Ended December 31,	2022	2021	2020			
Revenues	\$369,495	\$250,772	\$161,696			
Cost of Revenues	\$99,431	\$61,916	\$43,987			
Gross Profit	\$270,064	\$188,856	\$117,709			
Operating Expenses:						
Research and Development	\$150,444	\$103,833	\$53,024			
Sales and Marketing	\$66,967	\$59,170	\$34,983			
General and Administrative	\$117,846	\$78,950	\$43,713			
Other General Expenses	\$33,655	\$24,195	\$13,720			
Loss from Operations	(\$61,195)	(\$60,677)	(\$11,511)			
Other Income	\$613	\$318	\$157			
Other Expense	(\$807)	(\$268)	(\$85)			
Other (Expense) Income, net	(\$867)	\$38	\$72			
Loss before Interest and Income Tax and Provision for Inc Tax			(\$97,077)	(\$11,507)		
Interest Income			\$7,235	\$18	\$18	Interest Income
Loss before Provision for Income Taxes	(\$55,636)	(\$59,958)	(\$16,708)			Loss before Provision for Income Taxes
Provision for Income Taxes	\$938	\$177	\$68			Provision for Income Taxes
Net Loss and Comprehensive Loss	(\$59,574)	(\$60,135)	(\$16,776)			Net Loss and Comprehensive Loss
Net Loss per Share Attributable to Class Aand Class B Common Stockholders, Basic	(\$1.51)	(\$2.07)	(\$1.24)			Net Loss per Share Attributable to Class Aand Class B Common Stockholders, Basic
Net Loss per Share Attributable to Class Aand Class B Common Stockholders, Diluted	(\$1.51)	(\$2.07)	(\$1.24)			Net Loss per Share Attributable to Class Aand Class B Common Stockholders, Diluted

Appendix G: Schedules Part 1



A horizontal row of four solid-colored circles. From left to right, the colors are blue, purple, light green, and dark green.

NetWorking Capital Schedule															
	As at June 30, 2020	As at June 30, 2021	As at June 30, 2022	As at June 30, 2023	2024	2025	2026	2027	2028	2029	2029	2029	2029		
Depreciation est.	1022	1236	1944	3396											
PPE + Capitalised	\$ 2,316	\$ 3,634	\$ 5,713	\$ 4,783											
Accounts Receivable	\$ 20,450	\$ 25,129	\$ 28,209	\$ 53,406	\$ 80,655	\$ 109,217	\$ 141,492	\$ 180,975	\$ 224,477	\$ 263,921	\$ 308,945	\$ 360,215	\$ 418,472	\$ 484,535	
DSO	54.8	40.2	30.4	40.2											
Deferred cost	\$ 13,585	\$ 17,168	\$ 29,218	\$ 42,720	\$ 64,582	\$ 87,452	\$ 113,296	\$ 144,910	\$ 179,743	\$ 211,327	\$ 247,378	\$ 288,431	\$ 335,079	\$ 387,976	
%CoGs	34%	28%	32%	33%											
Accounts Payable	2196	4266	1504	2305	\$ 3,266.54	\$ 4,423.30	\$ 5,730.45	\$ 7,329.48	\$ 9,091.31	\$ 10,688.81	\$ 12,512.26	\$ 14,588.72	\$ 16,948.13	\$ 19,623.66	
DPO	20.02	24.99	6.05	6.44											
Deferred revenue	54792	70997	128194	192753	\$ 294,392	\$ 398,643	\$ 516,448	\$ 660,558	\$ 819,340	\$ 963,313	\$ 1,127,649	\$ 1,314,786	\$ 1,527,424	\$ 1,768,553	
%sales	40%	31%	38%	40%											
NWC	(\$22,953)	(\$32,966)	(\$72,271)	(\$98,932)	(\$152,421)	(\$206,397)	(\$267,390)	(\$342,003)	(\$424,212)	(\$498,754)	(\$583,838)	(\$680,728)	(\$790,821)	(\$915,865)	
Assume DSO remains at 40 into the future															
Assume Deferred cost/revenues remains 32.5% of CoGs															
Assume DPO remains at 6 into the future															
assume deferred revenues remains 40% of sales															
Depreciation Schedule															
intangible assets as at June 30 depreciation +	22,967		Useful life:	4.00 years											
		7.5			Capex	18.40	21.93	24.53	26.42	26.63	31.31	28.19	32.87	38.19	44.21
					2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
					5.74175	5.74175	5.74175	5.74175							
					4.59987198	4.59987198	4.59987198	4.59987198							
					5.481345612	5.481345612	5.481345612	5.481345612							
					6.132814398	6.132814398	6.132814398	6.132814398							
					6.60557988	6.60557988	6.60557988	6.60557988							
					6.657139412	6.657139412	6.657139412	6.657139412							
					7.826917219	7.826917219	7.826917219	7.826917219							
					7.047803419	7.047803419	7.047803419	7.047803419							
					8.21740959	8.21740959	8.21740959	8.21740959							
					9.55										
					D+A	5.74175	10.34162198	15.82296759	21.95578199	22.8196119	24.8768793	27.22245091	28.13743993	29.7492696	24.8116136

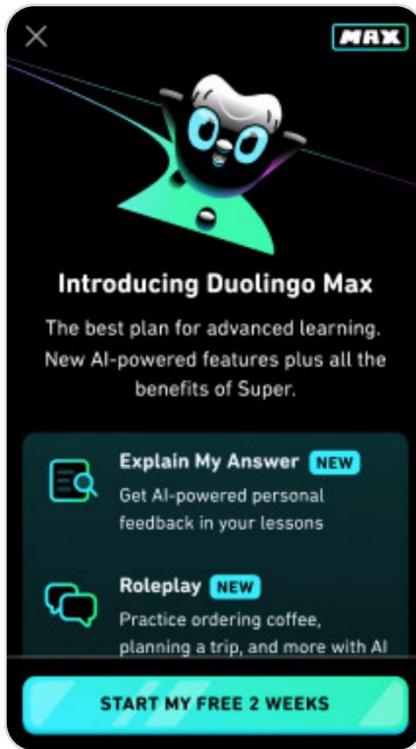


Appendix G: Schedules Part 2



Revenue Growth Schedule															
				CAGR		Conversion rate		Market Share							
				7.7%		8%		60%							
https://www.example.com/revenue-growth															
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
TAM	\$ 61,000.0	\$ 49,000.0	\$ 68,000.0	\$ 78,079.8	\$ 85,407.4	\$ 94,030.0	\$ 103,414.2	\$ 113,734.0	\$ 125,085.7	\$ 137,560.2	\$ 147,171.5	\$ 157,444.1	\$ 168,433.7	\$ 180,150.4	\$ 192,767.7
Digital proportion	20%	34%	36%	37%	40%	44%	47%	50%	53%	56%	60%	63%	66%	69%	71%
Digital Language market % growth	\$ 12,000	\$ 16,660	\$ 24,480	\$ 29,046	\$ 34,541	\$ 40,997	\$ 48,398	\$ 56,867	\$ 66,548	\$ 77,589	\$ 87,714	\$ 98,875	\$ 111,166	\$ 124,692	\$ 139,564
SAM	\$ 976.00	\$ 1,332.80	\$ 1,958.40	\$ 2,323.65	\$ 2,765.27	\$ 3,279.77	\$ 3,871.83	\$ 4,549.40	\$ 5,233.65	\$ 6,207.12	\$ 7,017.14	\$ 7,909.99	\$ 8,893.30	\$ 9,975.34	\$ 11,165.10
SOM	\$ 585.60	\$ 799.68	\$ 1,175.04	\$ 1,394.19	\$ 1,657.96	\$ 1,967.86	\$ 2,323.20	\$ 2,729.64	\$ 3,194.19	\$ 3,724.27	\$ 4,210.28	\$ 4,746.00	\$ 5,335.98	\$ 5,985.20	\$ 6,699.06
%growth	37%	47%	19%	19%	18%	18%	17%	17%	13%	13%	12%	12%	12%	12%	12%
Market Share (%forecast)	20%	21%	27%	29%	34%	39%	43%	47%	50%	52%	54%	56%	58%	60%	62%
(forecast) revenue	161,696	250,2	369,495	485,000	668,07	906,01	1,178,74	1,501,27	1,862,14	2,189,35	2,562,84	2,988,15	3,471,42	4,015,44	26.85%
	55%	47%	31%	38%	35%	30%	28%	24%	18%	17%	17%	16%	16%	16%	16%
	0.05	0.05	0.04	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
EBIT MARGIN	-4.342	-27.26	-55.464	-26.94	12,513,983	61,600,057	110,521,786	169,220,070	266,268,505	336,258,914	415,967,942	506,226,448	607,880,263	721,778,375	CAGR 0.16235717
EBIT MARGIN	-3%	-11%	-15%	-6%	2%	7%	9%	11%	14%	15%	16%	17%	18%	18%	18%
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	161,696	20	0.161698	250,772	21	0.250772	369,495	22	0.369495	485,000	23	0.485	906,01	24	0.68607
Year	EBIT Margin (%)	20	-3	21	-11	22	-15	23	-6	24	2	25	9	26	17
	24	2	25	7	26	9	27	11	28	14	29	16	30	18	20
	28	15	29	16	30	17	31	18	32	18	33	19	34	20	21
	30	16	31	17	32	18	33	19	34	20	35	21	36	22	23
	31	17	32	18	33	19	34	20	35	21	36	22	37	23	24
	32	18	33	19	34	20	35	21	36	22	37	23	38	24	25
	33	19	34	20	35	21	36	22	37	23	38	24	39	25	26
	34	20	35	21	36	22	37	23	38	24	39	25	40	26	27
	35	21	36	22	37	23	38	24	39	25	40	26	41	27	28
	36	22	37	23	38	24	39	25	40	26	41	27	42	28	29
	37	23	38	24	39	25	40	26	41	27	42	28	43	29	30
	38	24	39	25	40	26	41	27	42	28	43	29	44	30	31
	39	25	40	26	41	27	42	28	43	29	44	30	45	31	32
	40	26	41	27	42	28	43	29	44	30	45	31	46	32	33
	41	27	42	28	43	29	44	30	45	31	46	32	47	33	34
	42	28	43	29	44	30	45	31	46	32	47	33	48	34	35
	43	29	44	30	45	31	46	32	47	33	48	34	49	35	36
	44	30	45	31	46	32	47	33	48	34	49	35	50	36	37
	45	31	46	32	47	33	48	34	49	35	50	36	51	37	38
	46	32	47	33	48	34	49	35	50	36	51	37	52	38	39
	47	33	48	34	49	35	50	36	51	37	52	38	53	39	40
	48	34	49	35	50	36	51	37	52	38	53	39	54	40	41
	49	35	50	36	51	37	52	38	53	39	54	40	55	41	42
	50	36	51	37	52	38	53	39	54	40	55	41	56	42	43
	51	37	52	38	53	39	54	40	55	41	56	42	57	43	44
	52	38	53	39	54	40	55	41	56	42	57	43	58	44	45
	53	39	54	40	55	41	56	42	57	43	58	44	59	45	46
	54	40	55	41	56	42	57	43	58	44	59	45	60	46	47
	55	41	56	42	57	43	58	44	59	45	60	46	61	47	48
	56	42	57	43	58	44	59	45	60	46	61	47	62	48	49
	57	43	58	44	59	45	60	46	61	47	62	48	63	49	50
	58	44	59	45	60	46	61	47	62	48	63	49	64	50	51
	59	45	60	46	61	47	62	48	63	49	64	50	65	51	52
	60	46	61	47	62	48	63	49	64	50	65	51	66	52	53
	61	47	62	48	63	49	64	50	65	51	66	52	67	53	54
	62	48	63	49	64	50	65	51	66	52	67	53	68	54	55
	63	49	64	50	65	51	66	52	67	53	68	54	69	55	56
	64	50	65	51	66	52	67	53	68	54	69	55	70	56	57
	65	51	66	52	67	53	68	54	69	55	70	56	71	57	58
	66	52	67	53	68	54	69	55	70	56	71	57	72	58	59
	67	53	68	54	69	55	70	56	71	57	72	58	73	59	60
	68	54	69	55	70	56	71	57	72	58	73	59	74	60	61
	69	55	70	56	71	57	72	58	73	59	74	60	75	61	62
	70	56	71	57	72	58	73	59	74	60	75	61	76	62	63
	71	57	72	58	73	59	74	60	75	61	76	62	77	63	64
	72	58	73	59	74	60	75	61	76	62	77	63	78	64	65
	73	59	74	60	75	61	76	62	77	63	78	64	79	65	66
	74	60	75	61	76	62	77	63	78	64	79	65	80	66	67
	75	61	76	62	77	63	78	64	79	65	80	66	81	67	68
	76	62	77	63	78	64	79	65	80	66	81	67	82	68	69
	77	63	78	64	79	65	80	66	81	67	82	68	83	69	70
	78	64	79	65	80	66	81	67	82	68	83	69	84	70	71
	79	65	80	66	81	67	82	68	83	69	84	70	85	71	72
	80	66	81	67	82	68	83	69	84	70	85	71	86	72	73
	81	67	82	68	83	69	84	70	85	71	86	72	87	73	74
	82	68	83	69	84	70	85	71	86	72	87	73	88	74	75
	83	69	84	70	85	71	86	72	87	73	88	74	89	75	76
	84	70	85	71	86	72	87	73	88	74	89	75	90	76	77
	85	71	86	72	87	73	88	74	89	75	90	76	91	77	78
	86	72	87	73	88	74	89	75	90	76	91	77	92	78	79
	87	73	88	74	89	75	90	76	91	77	92	78	93	79	80
	88	74	89	75	90	76	91	77	92	78	93	79	94	80	81
	89	75	90	76	91	77	92	78	93	79	94	80	95	81	82
	90	76	91	77	92	78	93	79	94	80	95	81	96	82	83
	91	77	92	78	93	79	94	80	95	81	96	82	97	83	84
	92	78	93	79	94	80	95	81	96	82	97	83	98	84	85
	93	79	94	80	95	81	96	82	97	83	98	84	99	85	86
	94	80	95	81	96	82	97	83	98	84	99	85	100	86	87
	95	81	96	82	97	83	98	84	99	85	100	86	101	87	88
	96	82	97	83	98	84	99	85	100	86	101	87	102	88	89
	97	83	98	84	99	85	100	86	101	87	102	88	103	89	90
	98	84	99	85	100	86	101	87	102	88	103	89	104	90	91
	99	85	100	86	101	87	102	88	103	89	104	90	105	91	92
	100	86	101	87	102	88	103	89	104	90	105	91	106	92	93
	101	87	102	88	103	89	104	90	105	91	106	92	107	93	94
	102	88	103	89	104	90	105	91	106	92	107	93	108	94	95
	103	89	104	90	105	91	106	92	107	93	108	94			

New Initiatives – DuoLingo MAX

MAX

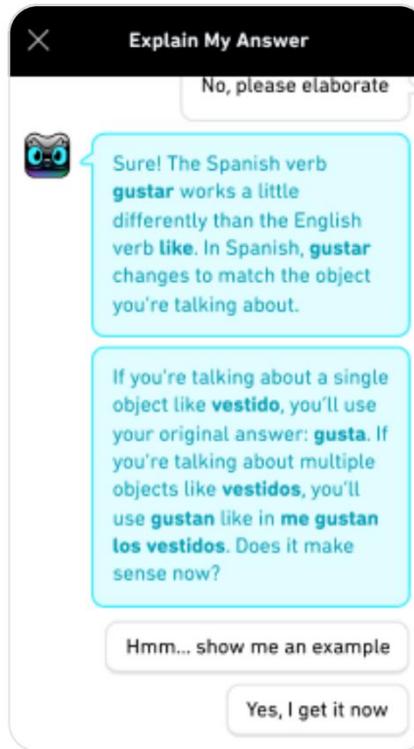
Introducing DuoLingo Max

The best plan for advanced learning.
New AI-powered features plus all the
benefits of Super.

Explain My Answer NEW
Get AI-powered personal
feedback in your lessons

Roleplay NEW
Practice ordering coffee,
planning a trip, and more with AI

START MY FREE 2 WEEKS



Explain My Answer

No, please elaborate

Sure! The Spanish verb **gustar** works a little differently than the English verb like. In Spanish, **gustar** changes to match the object you're talking about.

If you're talking about a single object like **vestido**, you'll use your original answer: **gusta**. If you're talking about multiple objects like **vestidos**, you'll use **gustan** like in **me gustan los vestidos**. Does it make sense now?

Hmm... show me an example

Yes, I get it now



Bonjour bienvenue. Que voulez-vous boire ?

Je **voudrais** un café

Super ! Vous le voulez avec du lait ou du noir ?

Respond in French...



Comparable Company Analysis – Software Companies

