



**Business Case Study  
of  
DUOLINGO, THE EDTECH  
MASTERMIND**

By  
Oishik Biswas

# Luis Von Ahn, The Founder of Duolingo



# The Downfall of Edtech Companies

- To build a sustainable business, you need to find a huge target addressable market.
- The rarest breed of entrepreneurs are the ones who don't just have a smart brain but also a big heart.
- The reason for sudden downfall of edtech companies is their excessive spending in the marketing strategy.

# Customer Acquisition Cost



## What is CAC?

**Customer  
Acquisition  
Cost**

**=**



**+**



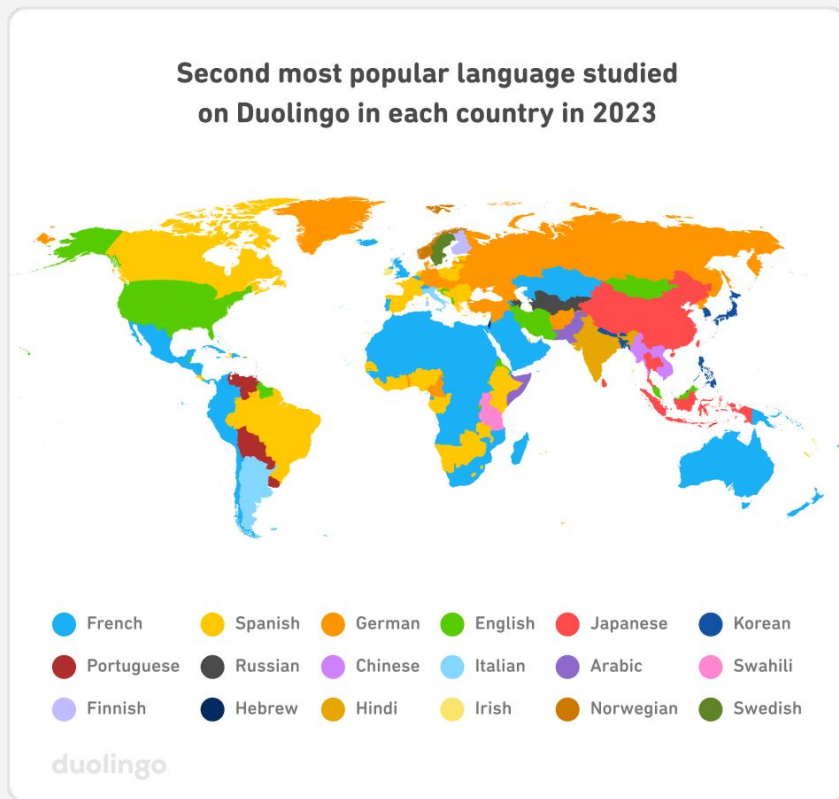
**Number of Customers Acquired**



# Duolingo, The Game Changer

- Key to Edtech market: Not customer acquisition, customer retention.
- 74.1 million monthly active users in 2023 for Duolingo.
- Founded in 2011 by Luis Von Ahn.
- Over 800 million downloads, 2 million test taker all across the world.
- Duolingo stood at 16.3 million downloads in January alone.
- Duolingo retention rate is 68% in October 2023, higher than Candy Crush (64%).

# Duolingo Interest of People



# Duolingo Popularity





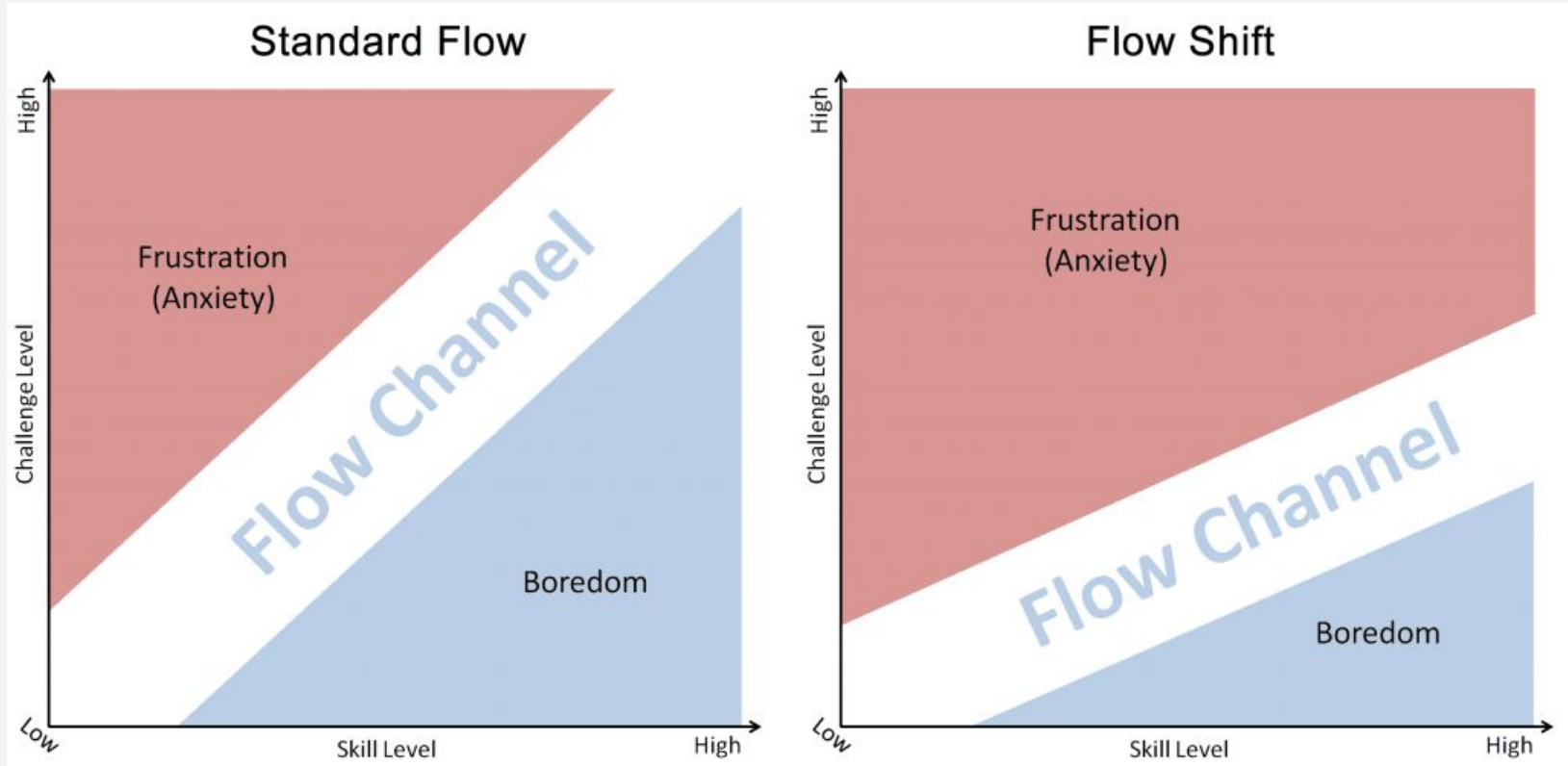
# Luis Von Ahn Observation

- Learning language is less complicated than learning physics and computer science.
- Targeted addressable market (more than 1 billion people).
- Most of them want to learn English.
- Unable to afford \$500 teaching a class.
- Get a salary hike at a job.

# Problem of Educational Tools and Courses

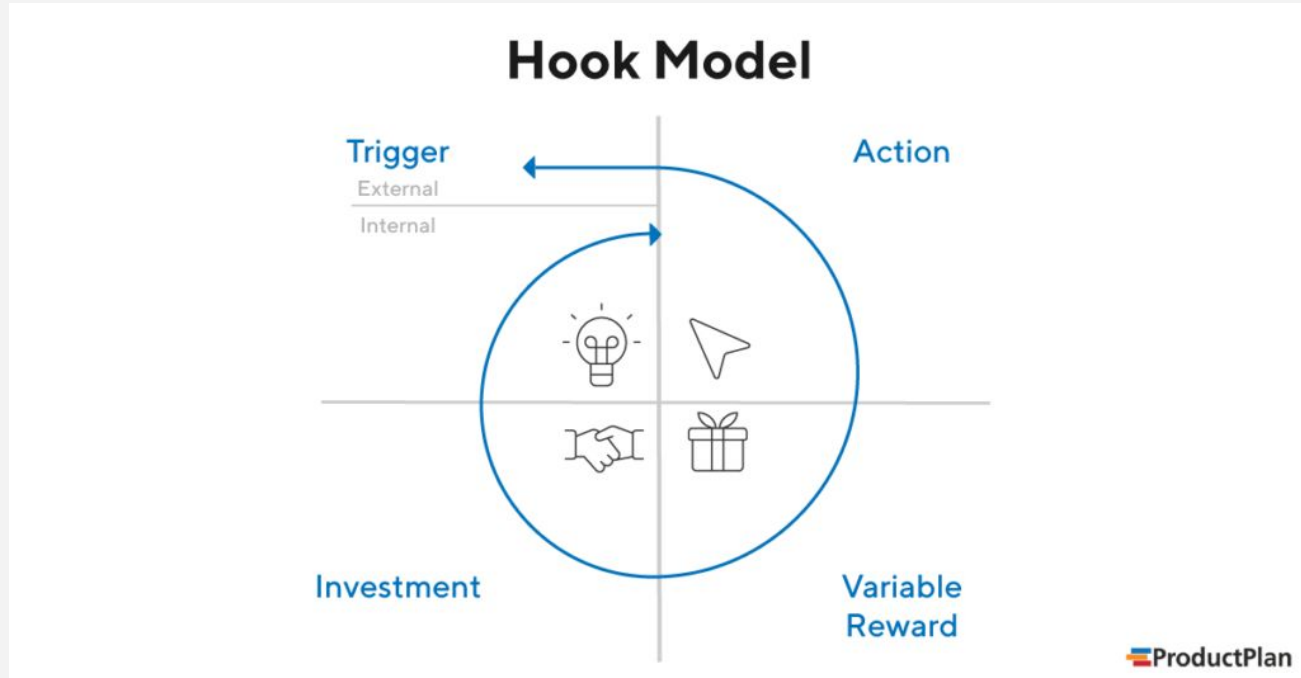
- Standard flow.
- Flow shift.
- Has to strike the perfect balance between the challenges in the course and the skill level of the students.

# Standard Flow & Flow Shift



# Hook Model

- To make a customer engaged with you, you must build a habit forming product.



# Four Step Framework

- Trigger
- Action
- Investment
- Variable reward

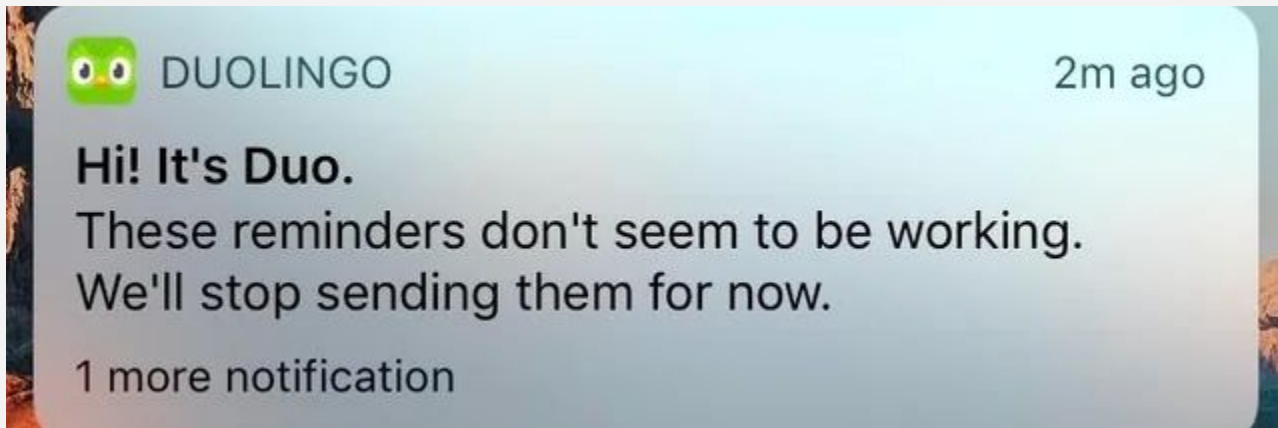
# Trigger

- Basically a nudge to action.
- Lilly and duo, the muscuts of Duolingo.
- The best time to send those notifications is exactly 24 hours after the users last session.
- Duolingo will stop sending notifications after 7 days of inactivity.
- Because they stop sending you the notifications.
- They will send you a passive aggressive notification to come back to the app and started doing the exercise.
- Meme culture was used to market their brand.

# Lilly and Duo



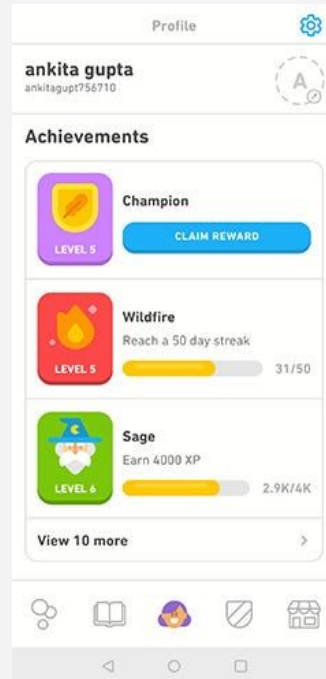
# Passive Aggressive Notification





# Action

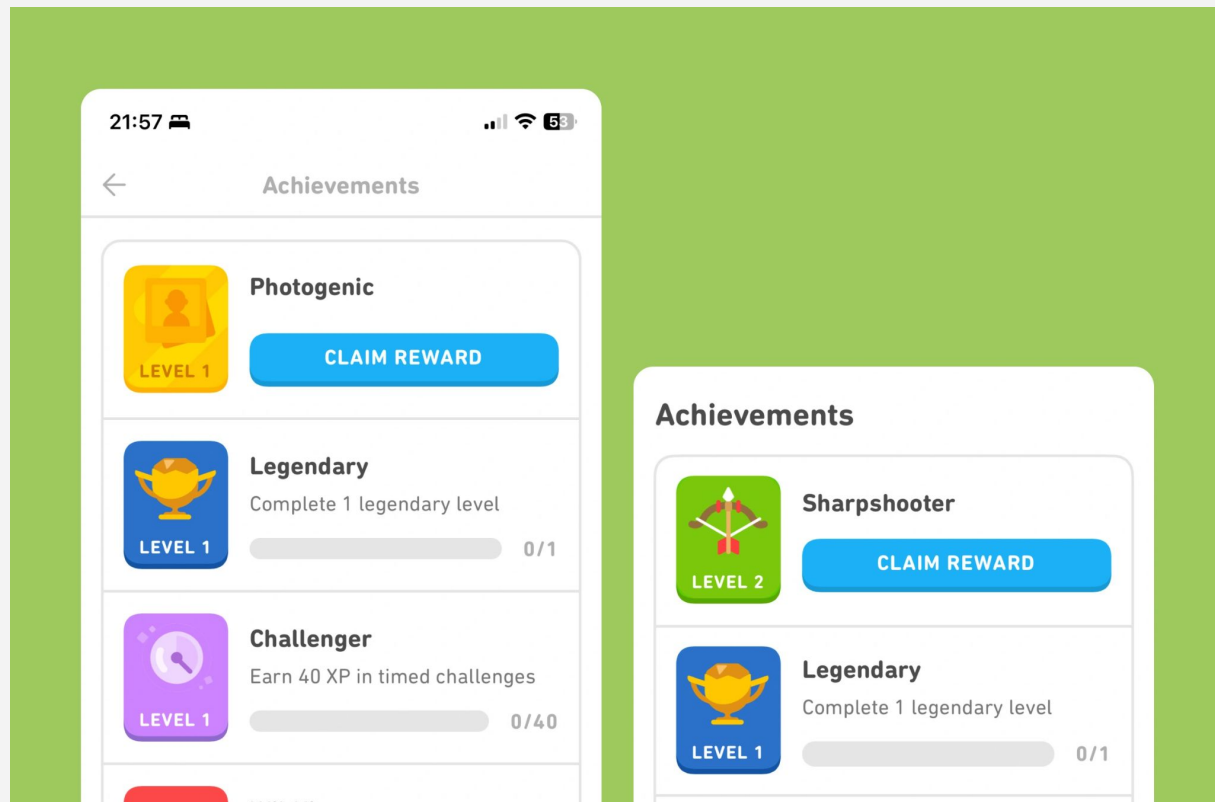
- Smallest action that a customer does in anticipation of a reward.



# Variable Reward

- Variable reward pattern is addictive from 1948 experiment.
- If a subject is given rewards in an unpredictable pattern than the subject will do the action way more frequently in anticipation of the unpredictable rewards,
- When you complete a lesson, you don't get a badge or a streak, you get experience points, which finally contributes to day streak.
- If you accomplish a certain numbers of tasks or stay consistent for a certain number of days then you even get a badge.

# Variable Reward in Duolingo



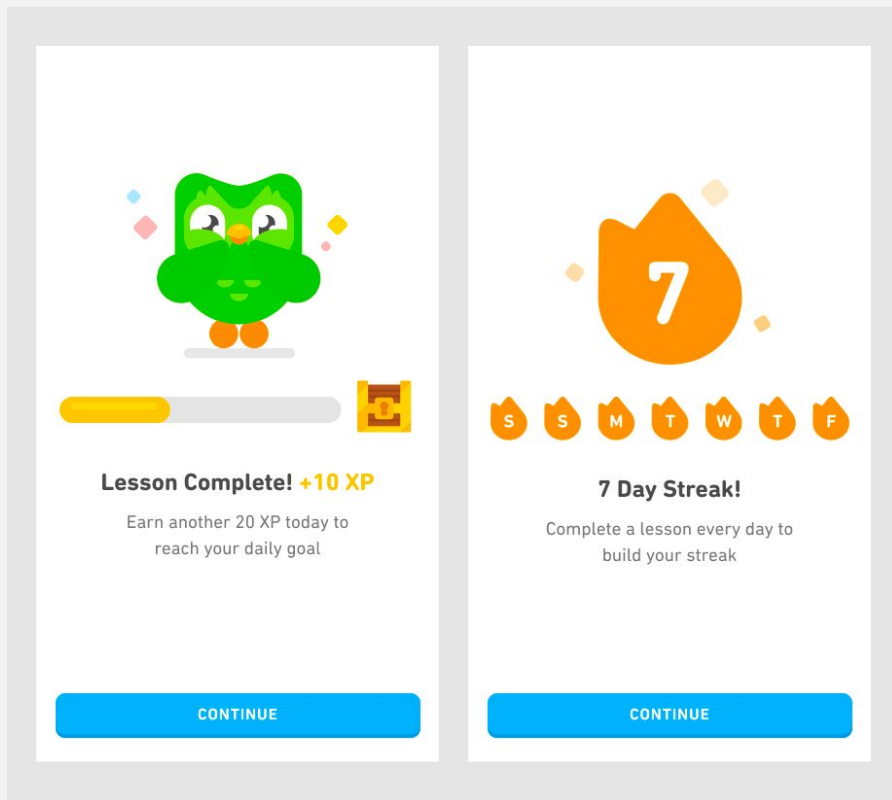
# Investment

- When we voluntarily invest efforts time or money into a product, the product automatically becomes more valuable to us.
- Duolingo has introduced a combination at multiple features that make a user psychologically invest into the app streak.
- Because you put in your efforts and time into maintaining the streak, the streak itself becomes more and more valuable with him.
- Duolingo has 3 million learners who have a streak of 365+ days.

# Investment

- Duolingo has perfected the use of positive and negative feedback such that learners are motivated to push themselves and not to be lazy.

# Day Streak in Duolingo



# Hook of the Hook Model

- Duolingo starts with a trigger, which is their push notification and reminder.
- Makes the learner take an action, which is taken in anticipation of a reward which is their experience points streak and leadership.
- Eventually it leads to a psychological investment with which further leads to a trigger for learning which then brings back users to the app again.

# English Proficiency Test Problems

- TOEFL, IELTS.
- The cost problem (test fees Rs 16000).
- Free only to 5 colleges.
- For each additional universities another 250 rupees increase the total cost to apply.
- Limited test centre access (only in big cities).
- 78 test centers for IELTS, number of test taker estimated to be around 1.3-1.4 million in India.



# English Proficiency Test Problems

- Testing centers have travel issues, vulnerable during conflict, natural disasters, public health crisis.



# Duolingo English Proficiency Test

- Low cost.
- Taken easily with laptops at house.
- Faster results.
- Send to unlimited schools for free.

# Duolingo League System

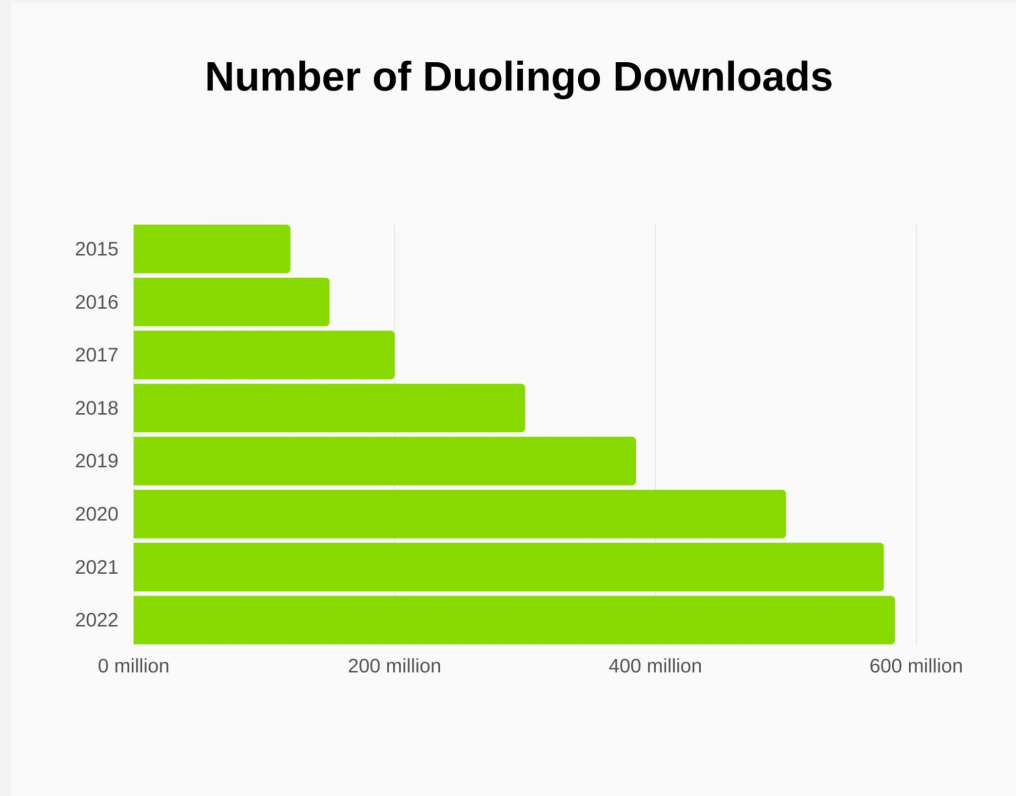
## Leaderboards

 BRONZE	 SILVER	 GOLD	 SAPPHIRE	 RUBY
1st  20	1st  25	1st  30	1st  35	1st  40
2nd  10	2nd  15	2nd  20	2nd  25	2nd  30
3rd  5	3rd  10	3rd  15	3rd  20	3rd  25

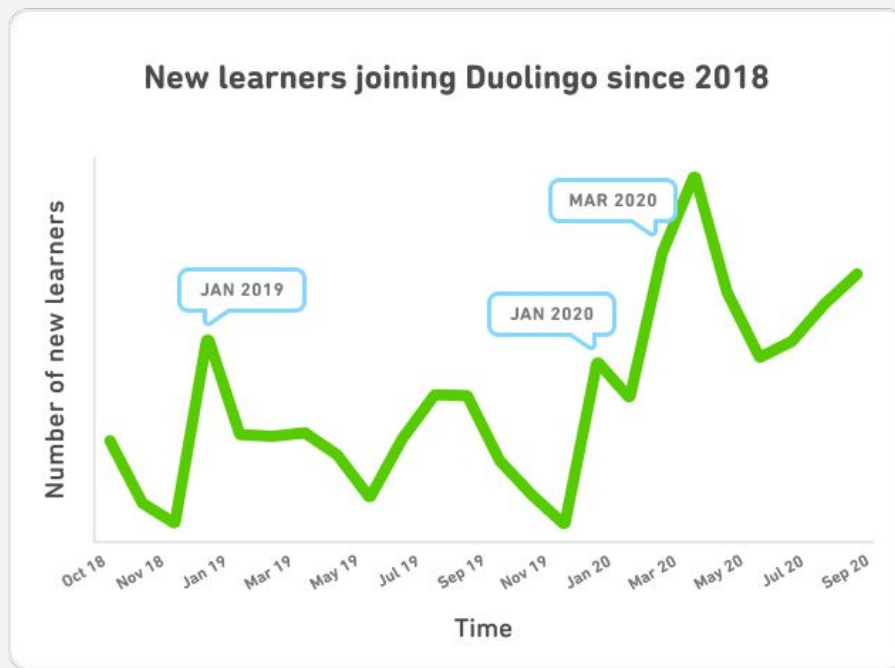
  

 EMERALD	 AMETHYST	 PEARL	 OBSIDIAN	 DIAMOND
1st  45	1st  50	1st  55	1st  60	1st  75
2nd  35	2nd  40	2nd  45	2nd  50	2nd  60
3rd  30	3rd  35	3rd  40	3rd  45	3rd  50

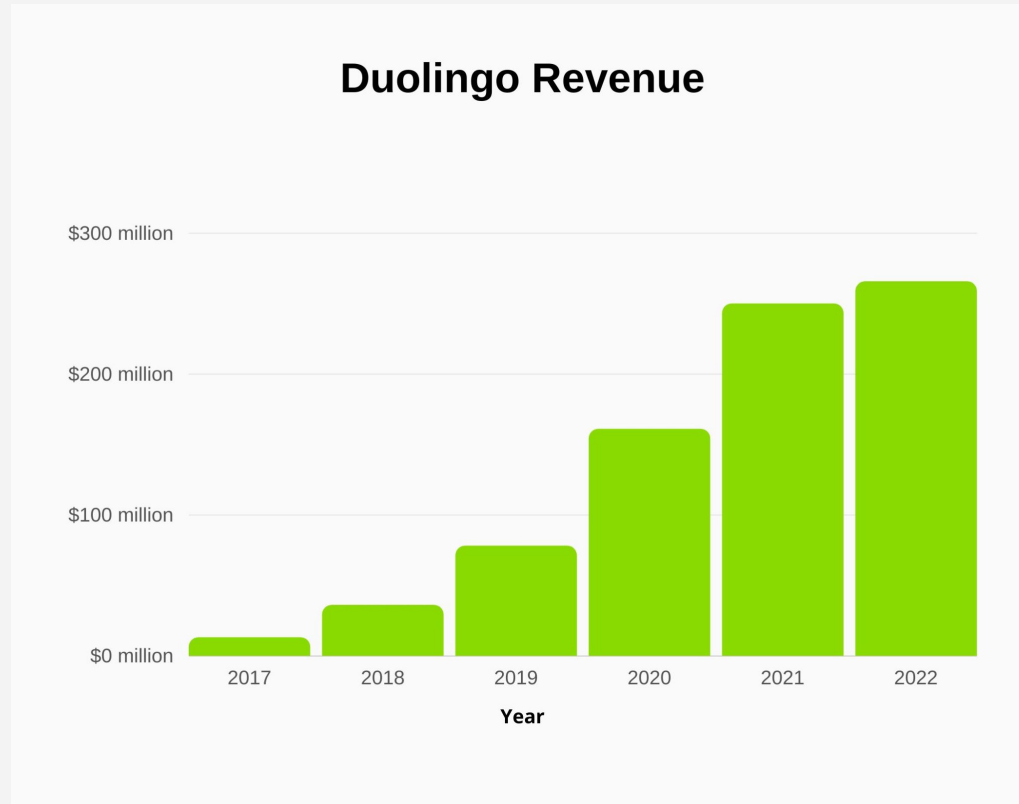
# Duolingo Popularity



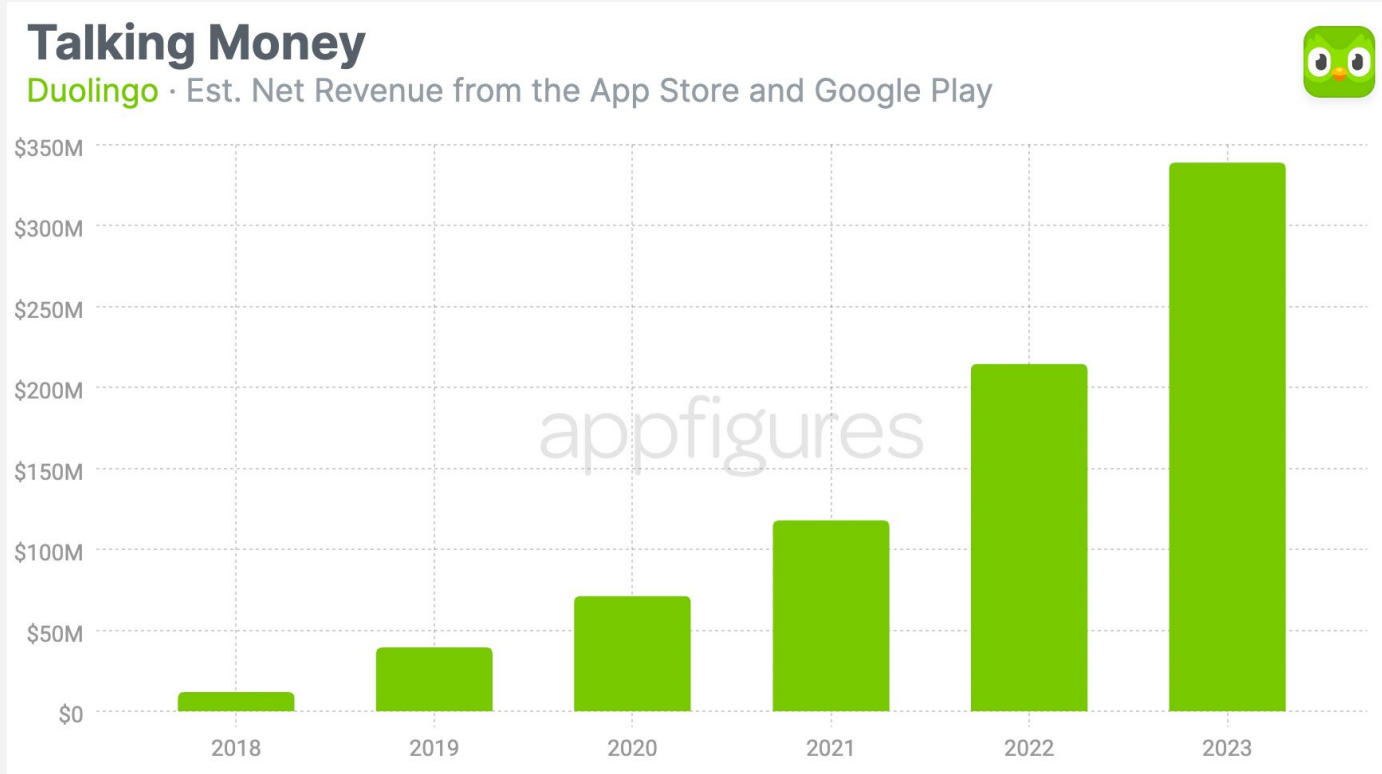
# Duolingo Popularity



# Duolingo Revenue Growth



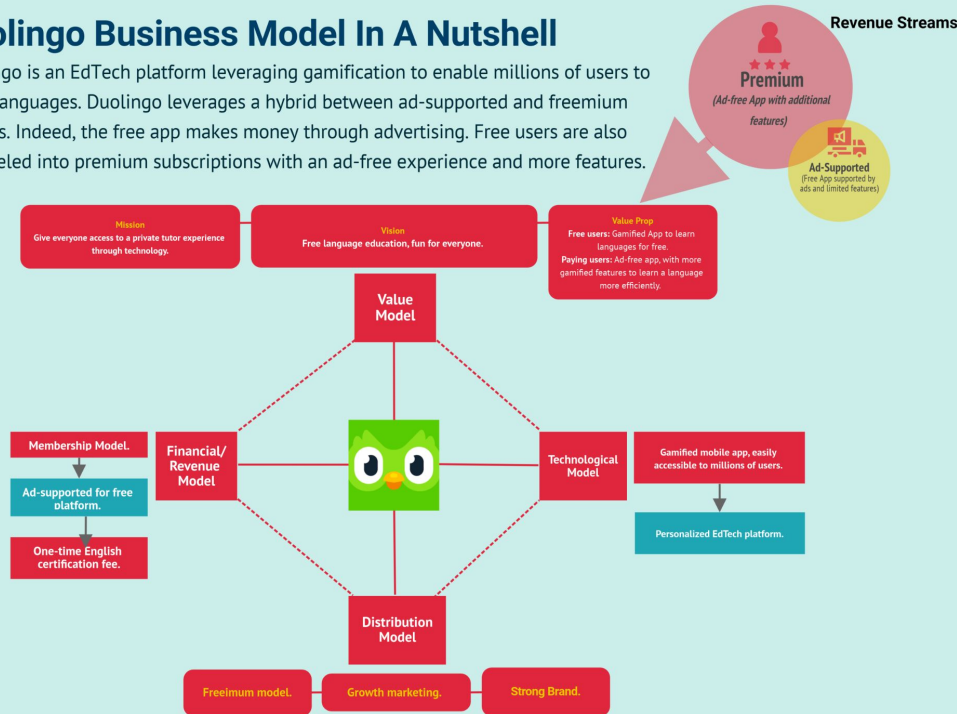
# Duolingo Revenue Growth



# Duolingo Business Model

## Duolingo Business Model In A Nutshell

Duolingo is an EdTech platform leveraging gamification to enable millions of users to learn languages. Duolingo leverages a hybrid between ad-supported and freemium models. Indeed, the free app makes money through advertising. Free users are also channeled into premium subscriptions with an ad-free experience and more features.





# Duolingo SWOT Analysis

## SWOT ANALYSIS OF **duolingo**



# Business Lessons

- Most edtech companies are obsessed with customer acquisition great edtech companies obsess with customer retention.
- If you want to sustain in this crowded market of apps and products, you have to find a way to become a habit forming product.
- You need to understand that there is a huge target address in India, Africa and South America which still need life changing solutions and each of these problems are a stepping stone to help us find a million dollar business opportunity.