

$$P \rightarrow Q$$

$$\neg Q$$

$$\therefore \neg P$$

# LogicPath

*“Level up your thinking”*

# Table of Contents

- Team Info
- The Societal Problem
  - Background
  - Problem Statement
  - Problem Characteristics
  - Current Process Flow
- The Solution
  - Solution Statement
  - Solution Characteristics
  - Solution Process Flow
- Competition Matrix
- Development Tools
- Major Functional Components (& Diagram)
- Risks
- References
- Appendix

# Team Bio



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# Background

- Critical thinking is an essential skill
  - Spans across multiple domains like academics, civic engagement, personal decision-making, and more
  - Enables people to evaluate arguments, analyze information, and problem solve more efficiently
- Logic is the foundational bedrock of critical thinking
- *It can be viewed as a fundamental scaling stat where 'leveling it up' improves various aspects of your life.*
- Despite the value of logic and critical thinking, many of us struggle to develop it

# Problem Statement

The existing educational resources surrounding logic, especially formal logic, are often dry and intimidating. ***Despite logical thinking being an incredibly important skill, there are no engaging, accessible resources on logic.*** In an era of rampant misinformation, the ability to parse and evaluate arguments has become more important than ever (Martel et al.).

# Users/Customers/Stakeholders

- **Users**

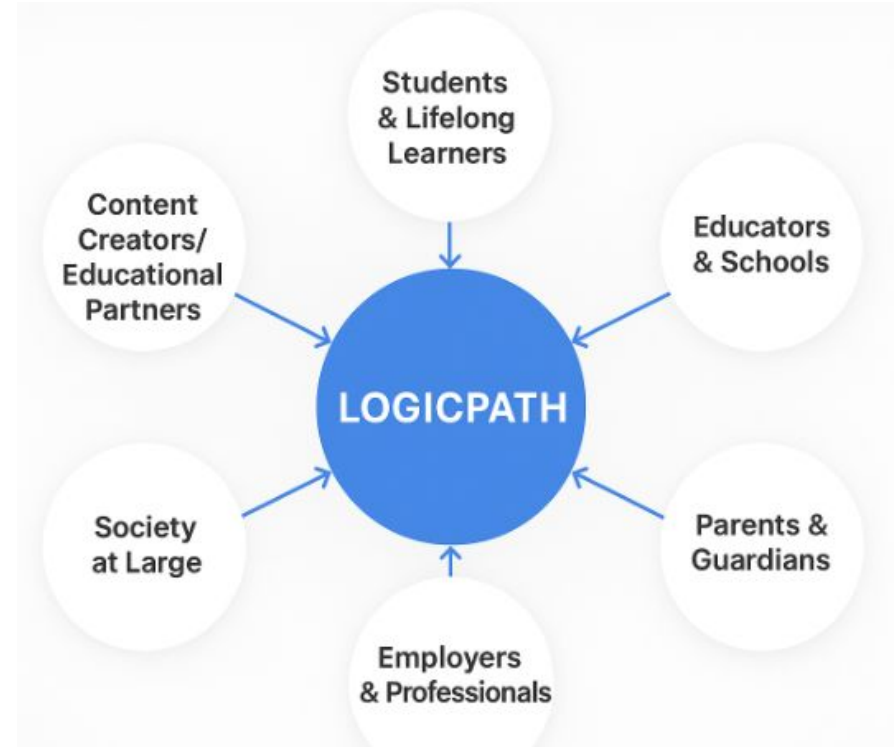
- High School & College Students
- Lifelong Learners
- Educators

- **Customers**

- Individuals
- Schools / Educational Institutions

- **Stakeholders**

- Students & Learners
- Schools & Educators
- Parents
- Employers
- Society



# Problem Characteristics

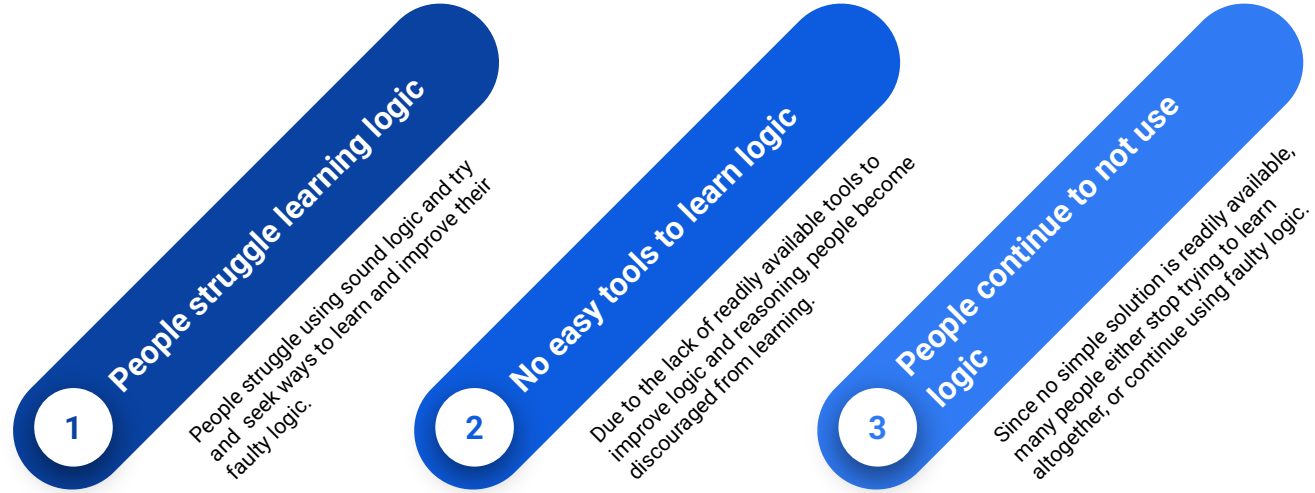
- **No engaging resources in Logic**

- Traditional logic resources are text-heavy and dry due to a lack of interactive and engaging content
- Learners lose their motivation, reducing skill development

- **Poor real-world application**

- Logic resources often focus on the theory, or at most, applies it to distilled, non-relevant arguments
- Learners may struggle to apply formal reasoning skills to real-world situation

# Current Process Flow





# Solution

**LogicPath** is an interactive learning platform designed to make learning formal logic engaging, accessible, and fun. Delivered as both a web and mobile app, **LogicPath** blends education with interactivity and gamification to create a dynamic learning environment.

# Solution Characteristics

- **Interactive Learning Modules:** Step-by-step lessons that gradually introduce concepts from everyday reasoning to formal logic.
- **Gamified Exercises & Puzzles:** Logic quests, challenges, and streak rewards to motivate continued practice.
- **Visual Aids & Simulations:** Diagrams and flowcharts to make abstract concepts easier to understand.
- **Real-World Applications:** Lessons tied to analyzing news, debates, and personal decision-making.

# Competition Matrix

	Brilliant.org	Khan Academy	Lumosity	LogicPath
Reasoning	✓	✓	✓	✓
Informal/Formal Logic	✗	✗	✗	✓
Engagement	✗	✗	✓	✓
Skill Development	✗	✗	✗	✓
Theory Development	✗	✗	✗	✓

# Glossary

- **Logic:** the systematic use of symbolic and mathematical techniques to determine the forms of valid deductive argument.
- **Formal/Informal Logic:** Formal logic is based off deductively valid reasoning. Informal logic is based off natural languages.

# References

Martel, Cameron, et al. "Reliance on Emotion Promotes Belief in Fake News." *Cognitive Research: Principles and Implications*, vol. 5, no. 1, 7 Oct. 2020, pp.1–20,  
[cognitiveresearchjournal.springeropen.com/articles/10.1186/s41235-020-00252-3](https://cognitiveresearchjournal.springeropen.com/articles/10.1186/s41235-020-00252-3),  
<https://doi.org/10.1186/s41235-020-00252-3>.

# Appendix\*