

# HIGHER EDGEICATION

Preparing University Students for an  
AI-Integrated Future

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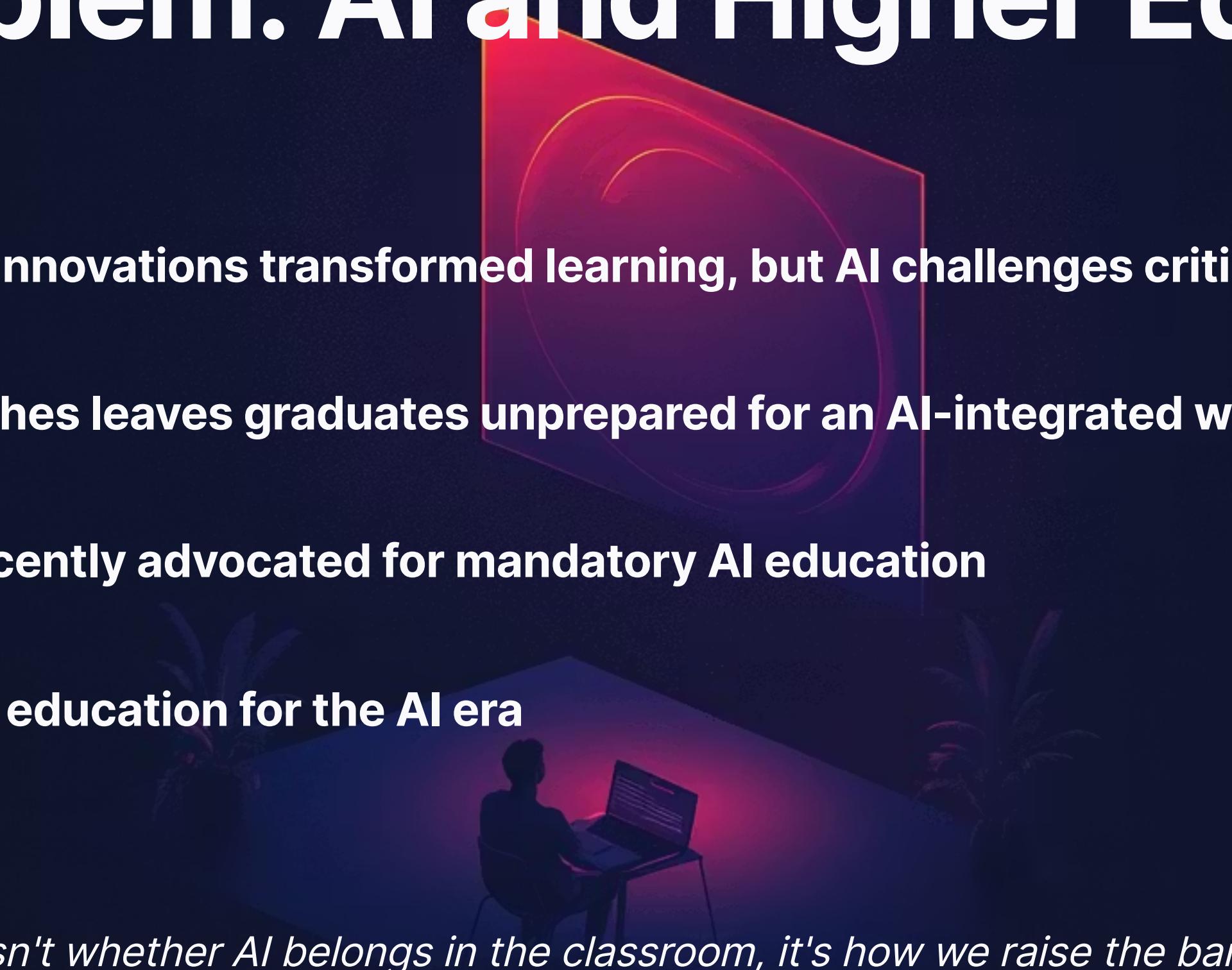
Lars Leimkuhler, Ph.D. Candidate

*a16z Speedrun Application*

May 2025

# The Problem: AI and Higher Education

- Past technological innovations transformed learning, but AI challenges critical thinking
- Traditional approaches leaves graduates unprepared for an AI-integrated workplace
- 250+ tech CEOs recently advocated for mandatory AI education
- We must reimagine education for the AI era



*The question isn't whether AI belongs in the classroom, it's how we raise the bar for learning in the age of AI*

# Introducing Higher Edgecation

Educator-Built for the AI Era

- **Next-Gen Learning Platform:** Blends traditional teaching with AI-powered assessment
- **Gamified, "AI-Proof" Assessments:** Games that measure true understanding
- **Integrated AI Literacy:** Students learn about the strengths and limits of AI
- **Faculty Analytics:** Real-time insights into student mastery and AI reliance

*Faculty can confidently say:*

*'Use AI to learn, but we'll know what you understand'*

# Initial Rollout (UCR, 2023)

- Used by 1,000+ students at UC Riverside
- Key Concepts: tradeoffs, elasticity, tariffs, national debt, investing, etc.
- Gamified Learning: Randomized Scenarios, Leaderboards
- Success = Concept Mastery



**Virtual Econ**

Welcome, Guest!

Choose how you will allocate your time.

Age: 23	Health: 26.57	Food: 96.03
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Hunting Hours (0 - 24):

Resting Hours (0 - 24):

**Submit**

You hunted for 7 hours and rested for 17 hours. Total health change for this period: 9.02. Total food change for this period: -3.97.

Age	Health	Food	Net Health Change	Net Food Change	Hunting Hours	Resting Hours
23	26.57	96.03	9.02	-3.97	7	17
22	17.55	100.00	-11.44	10.88	13	11
21	28.99	89.12	-12.92	23.16	13	11
20	41.91	65.96	0.11	-2.94	10	14
19	41.80	68.90	-8.20	18.90	13	11

**Virtual Econ**

The Rational Hunter

Your Final Age: 26

**View Leaderboard** **Start Over**

Health and Food Status by Age

Activity Hours Over Time

Game Log

Age	Health	Food	Net Health Change	Net Food Change	Hunting Hours	Resting Hours
19	41.80	68.90	-8.20	18.90	13	11
20	41.91	65.96	0.11	-2.94	10	14
21	28.99	89.12	-12.92	23.16	13	11
22	17.55	100	-11.44	10.88	13	11
23	26.57	96.03	9.02	-3.97	7	17
24	11.55	100	-15.02	3.97	11	13
25	10.34	100	-1.2	0	9	15
26	0	100	-10.34	0	12	12

**Virtual Econ**

The Rational Hunter Username: matt

**Start Over** **Instructions** **Leaderboard** **Home**

Rational Hunter Leaderboard for Class 2224

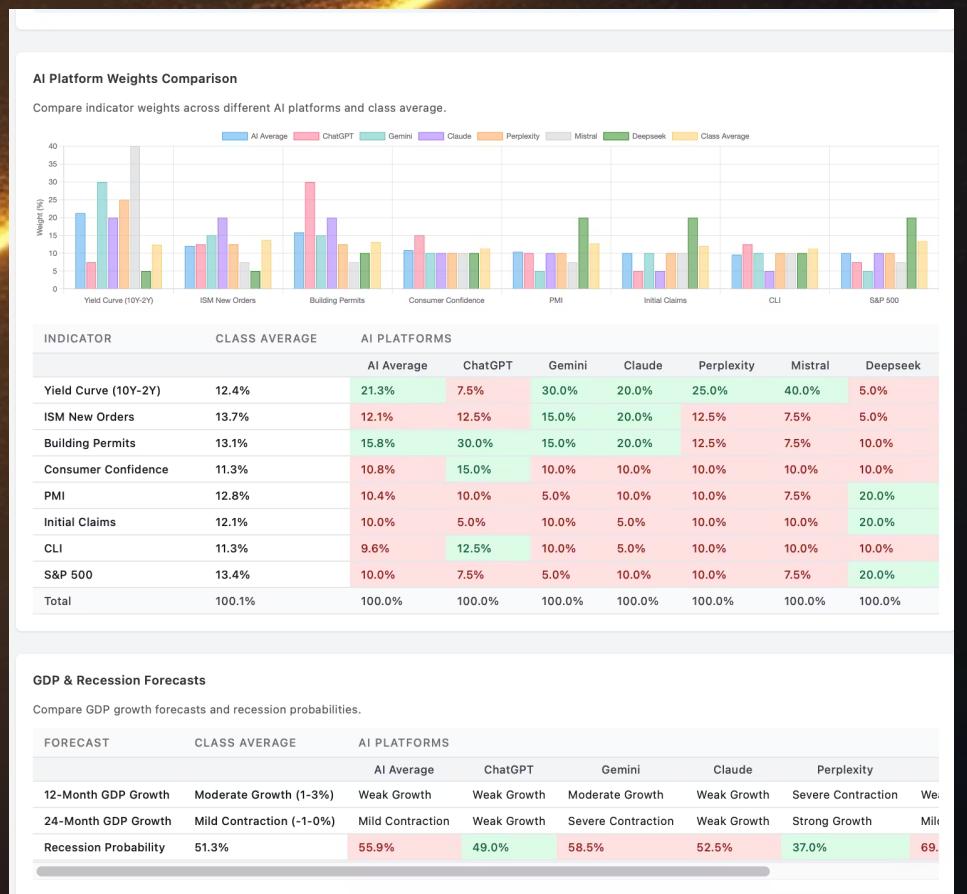
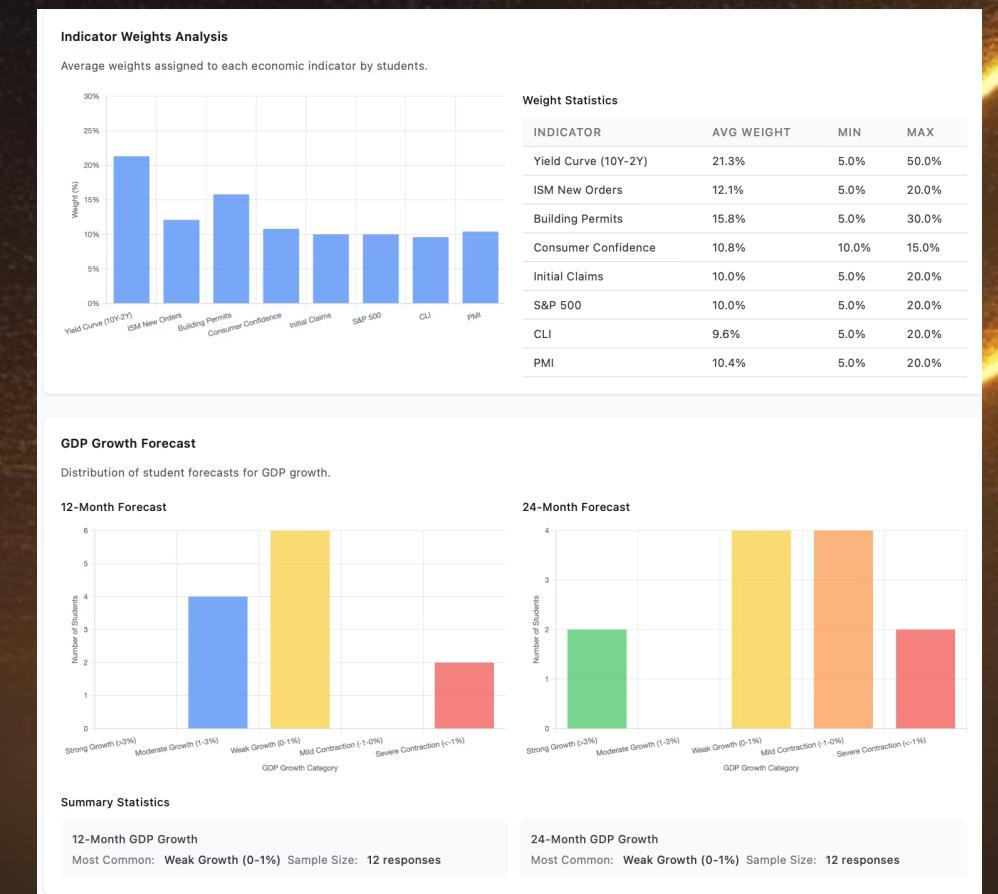
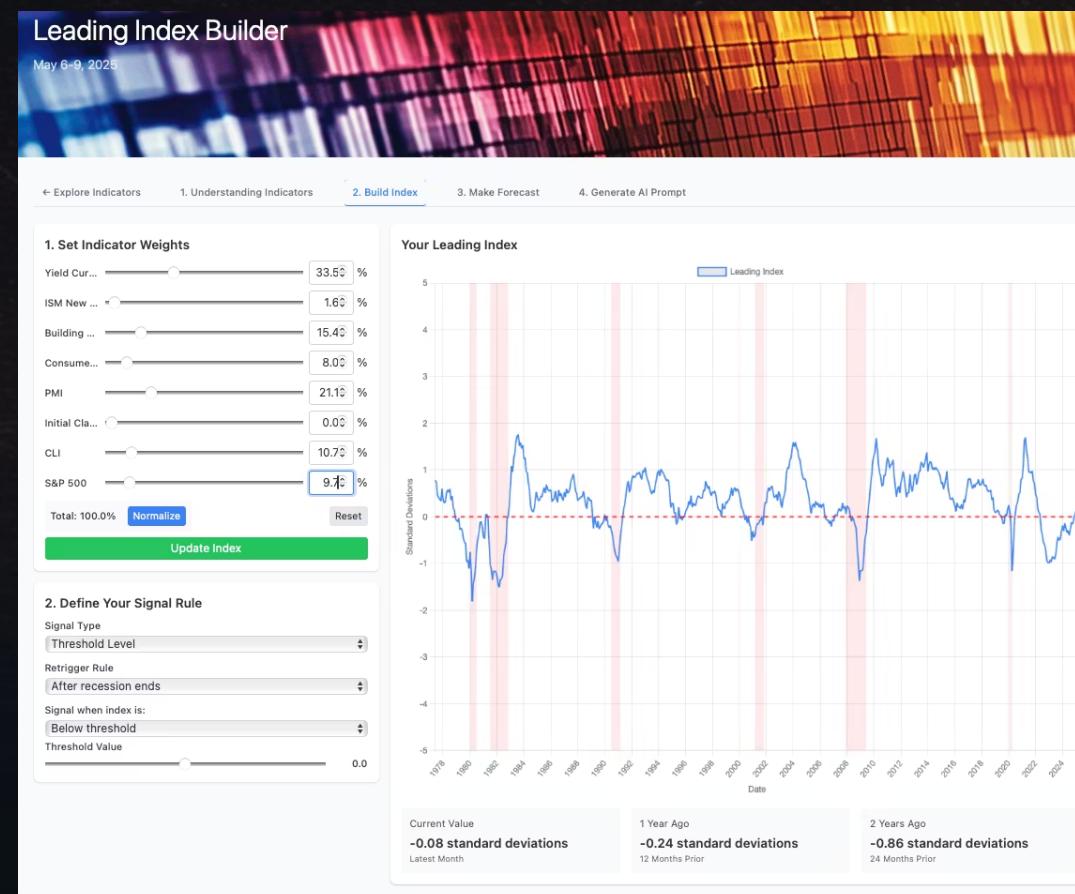
Rank	Username	High Score
1	Devonroman	44
2	23natethegreat	43
3	Atlas_05	39
4	BDub	34
5	12pm	31
6	kayley	29
7	eaiva105	23

**Start Over**

<https://virtualecon.ucr.edu>

# Current Iteration (UCSB, 2025)

- Students interact with real-time data and make decisions.
- Analyze and compare results with both peers and AI.
- Activities are designed to enhance critical thinking, not replace it.



<https://matthewdlang18.github.io/macroeconomics-course-website/index.html>

# Expanding the Platform

## Quarterly Game Expansion

- AI-Enhanced FOMC Role Play
- Housing Boom and Bust
- Bitcoin Mining Simulation

## Flagship Experience: *Balance of Power*

- Comprehensive economy-building simulation testing multiple concepts
- Dynamic, randomized events for unique gameplay
- Assessment based on real-world application

*A flight simulator for economics: practice real-world decision-making without real-world consequences.*

# The Market Opportunity

- **900,000+ students take Principles of Economics annually in U.S.**
- **40% of all college students encounter at least one economics course**
- **\$163B EdTech market growing at 13% annually**
- **Per-Course Pricing = consistent, scalable revenue**

## Initial Target:

- **10 UC system economics departments → 10+ U.S. universities → International expansion**

*Universities are searching for cost-effective, AI-ready solutions.*

# The Competition

	<i>Higher Edgecation</i>	MobLab	VeconLab	Textbooks
AI Integration	<i>Purpose-built</i>	None	None	Add-ons
Assessment	<i>AI-resistant games</i>	Basic Scoring	Basic Results	AI-Vulnerable
Faculty Workload	<i>Reduced</i>	Moderate	High	Consistent
Course Integration	<i>Seamless</i>	Add-on	Add-on	Static
Classroom Testing	<i>Extensive</i>	Limited	Scattered	N/A
Engagement	<i>High (gamified)</i>	Moderate	Low	Very Low

*Existing platforms were built before the AI revolution and lack the architecture to address today's challenges*

# Our Edge

**Instant Classroom Deployment: Immediate use and testing in our courses - no waiting, no barriers**

**Faculty-Led Design: Created by professors who understand both the classroom and the technology**

**Proven & Innovative: Built on established educational methods, reimagined for the AI era.**

**First Mover: Only platform addressing both AI literacy and AI-resistant assessment.**

*Our Edge: Testing with real students while competitors are still brainstorming*

# Why This Team



Bree Lang, Ph.D.  
Teaching Professor  
UCSB



Matt Lang, Ph.D.  
Teaching Professor  
UCSB



Lars Leimkuhler, MA  
Economics Ph.D. Candidate  
UCSB

**Academic Credibility:** Thousands of students taught annually at top universities.

**Relentless Experimentation:** We build, test, and refine in our classrooms.

**AI-Enhanced Development:** We combine our programming skills with AI tools for rapid innovation.

**Frontline of AI in Education:** Our solutions emerge from daily experience

*Our experience lets us see what's needed. AI helps us build it faster than ever before.*

# Roadmap: Economics, Then Expand

## Economics Foundation (Now-Q2 2026)

Complete UCSB pilot with measurable outcomes

Pilot at other UC economics departments

## First Expansion (Q3 2026 - Q2 2027)

Scale to 10+ university economics departments nationwide

Adapt platform for Mathematics, Statistics, and Finance

## Broader Expansion (2027+)

Expand to Computer Science & STEM fields

Replace outdated Learning Management Systems

*Economics provides the ideal testing ground before transforming higher education broadly*

# Why A16Z Speedrun?

## What We Bring

**Alignment with Speedrun Pillars: Technology, Entertainment, and AI**

**Real Traction: Direct Connection to UC campuses**

**Fast Execution: Rapid build and iterate cycle**

## What Speedrun Unlocks

**Go-To-Market: Expert guidance needed for us to become founders**

**Investment Strategy: Connections to education-focused investors**

**Technical Resources: Infrastructure for rapid development**

*Together, we can redefine the future of education*

# The Higher Edgecation Opportunity

**Someone will successfully merge AI into higher education – and be rewarded.**

**We are positioned to lead :**

- **We live the problem daily as instructors teaching 1000+ students annually**
- **We bring both domain expertise and technical skills**
- **We are willing to innovate while others cling to tradition**
- **We have already started testing in classrooms**
- **We see the opportunity that others are avoiding**



*We are done talking about AI's impact on education. We are doing something about it.*