

# AI-GENERATED LEARNING

April 2022

**Growth Engine** 

# IT TAKES TOO LONG TO CREATE TRAINING CURRICULA



1 Hour of Corporate Training 180 hours <sup>1</sup>



1 Online Course 5 months <sup>2</sup>

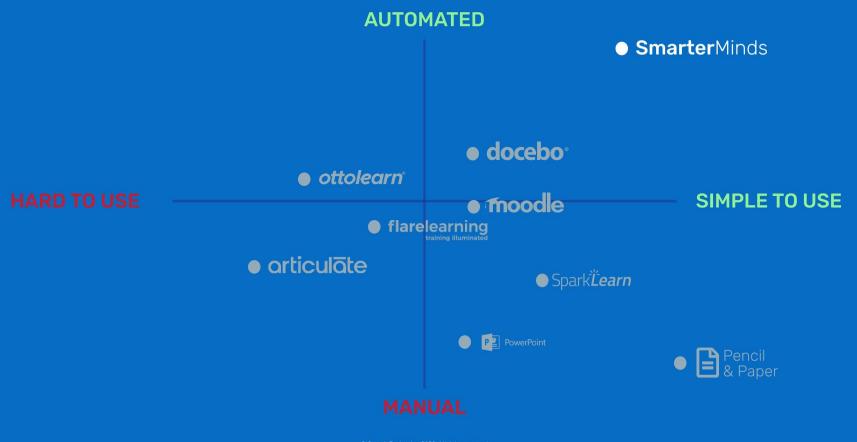


1 Academic Class
120 hours <sup>3</sup>



1 DoD Training Course
18-36 months

# CONTENT CREATION SPEED IS THE BOTTLENECK FOR EVERY EDTECH PRODUCT



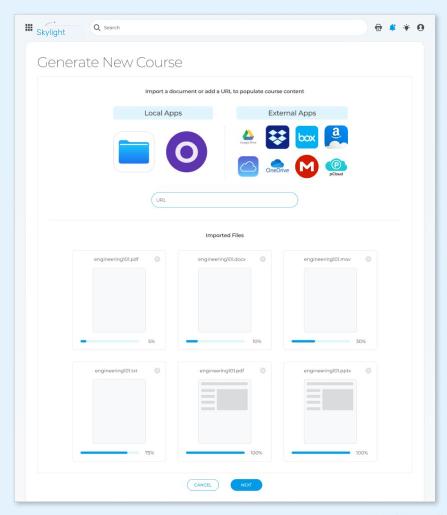
# **SmarterMinds:**

An Al-Powered Education Platform for Generating and Delivering Curricula.

# How does it work?

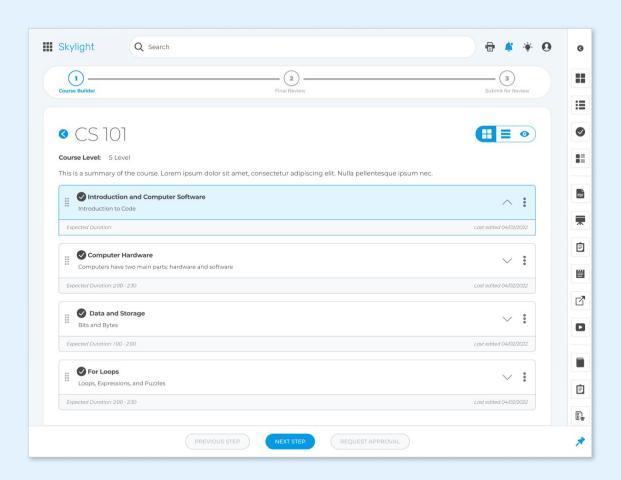
### Step 1

Upload your manuals, corporate docs, blog posts, or other doc types



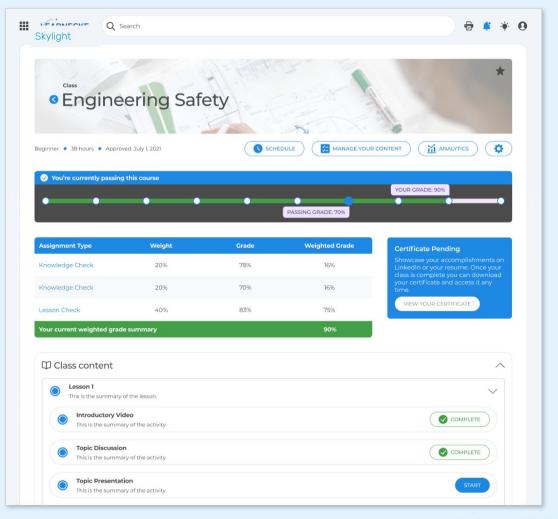
### Step 2

After key concepts are extracted, simply arrange your course.



### Step 4

Publish for students to take.



# Case Study

## **USAF: MSgt Wernecke, 90 MW**

Agents manually create all exams, quizzes, instructions, and study materials from Technical Orders and manuals.

### **PROBLEM**

### **SOLUTION**

**IMPACT** 

- Each course costs > \$660k to develop
- 18 Months to create a new course
- Each student costs \$10k-\$18k per subject to train

- Data ingestion pipeline
- Al-generated exam & assessments
- Agents reviews, edits & publishes acceptable questions

- 98% cost savings
- 800% increase in agent content output
- 97% reduction in time to develop courses

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"Fundamentally shifts instructional design, enabling the DOD/USAF to rapidly scale and modernize educational development across all levels of the Total Force."

- CMSgt. Wernecke, ICBM Field Training Manager

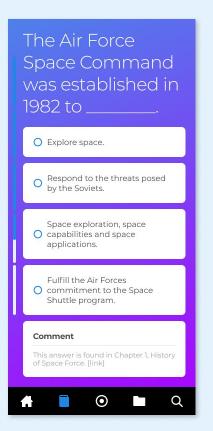
# Part 2: Course Delivery

#### **SmarterMinds App**

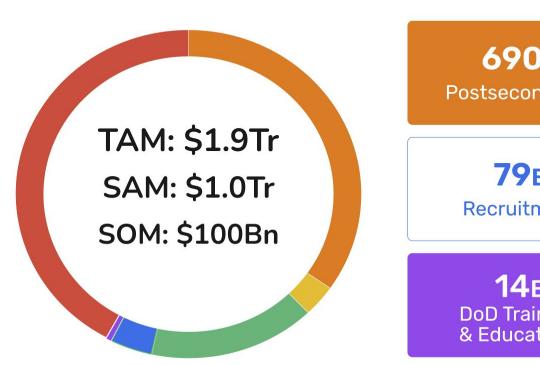
#### TikTok for Enterprise Learning

- TikTok-style content for instructors and students
- Al makes it simple to create and learn content
- Instructors can record to rapidly teach new concepts
- Learners can easily demonstrate learning





# SMARTERMINDS IMPACTS MULTIPLE SEGMENTS





# NO OTHER EDUCATION PRODUCT IS READY FOR THE FULL POTENTIAL OF AI

	GROWTH	docebo	in LEARNING	<b>U</b> Udemy	لصصا	talentims
LMS with Content Library	✓	✓	✓	✓	✓	✓
Manual Content Creation	✓	✓	✓	✓	✓	✓
Al-Generated Assessments	✓					
Al-Powered Course Creation	✓					
Al-Generated Courses	✓					
Al-Powered Microlearning	✓					
Automated Adaptive Learning	✓					

# MARKET TRACTION SHOWS CONSISTENT GROWTH

\$800k

Value of contracts earned

\$500k

Cloud credits granted

\$1.5M

Next DoD Contract (Granted)

18

Opportunities in commercial pipeline (and growing)

\$69.94M

Max potential ARR in current commercial pipeline

3

Products ready for production/sales in 2022

# COMMERCIAL SAAS MODEL FOR EASY ONBOARDING

#### **LEARNERS**

#### **TBD**

- · AI-Powered Microlearning
- In-depth Knowledge Metrics
- · Social Knowledge Sharing
- · Knowledge Certification

#### **INSTRUCTORS**

#### **TBD**

- · AI-Powered course Generation
- Collaboration & Approvals
- Extensive Enterprise Permissions
- · AI-Driven Organization Metrics
- License Management

#### **API ACCESS**

#### **Priced Per Call**

- · Rapid Question Bank Generation
- Education Document Extraction
- Transcript Analysis

### **FINANCIALS**

# 2021 INVESTMENT FOCUS

We have made investments in the following areas to create our scalable Al architecture and to prepare for new revenue streams beginning in 2022.

- Scalable Al Infrastructure
- Application Development Environments
- Production Deployment Pipeline
- Product & Project Management Processes
- Team Growth
- Adaptive Learning AI R&D
- Commercial Development

REVENUE	2022	2023	2024	2025		
DoD Grants	\$ 1,204,000	\$ 645,000	\$ 0	\$ 0		
DoD Revenue	0	744,000	3,350,000	6,642,000		
Commercial Revenue	250,000	3,919,000	9,516,000	20,920,000		
EXPENSES	2022	2023	2024	2025		
Infrastucture	142,000	774,500	892,000	1,010,000		
Marketing	64,200	102,000	133,000	164,000		
HR/Payroll	1,751,000	3,284,000	6,090,000	12,244,000		
G&A	81,900	146,000	201,000	260,000		
TOTAL REVENUE	1,454,000	5,308,000	12,866,000	27,562,000		
TOTAL EXPENSES	2,039,100	4,306,500	7,316,000	13,678,000		
EBITA	(585,100)	1,001,500	5,550,000	13,884,000		
YOY REVENUE GROWTH	360.02%	365.06%	242.39%	214.22%		

## **Experienced Leadership.** Deep Education and NLP Expertise.



**Alan Harris** CEO 20 Years of Tech Experience Author of 8 Patents



Tri Nguyen Chief Architect Self-taught AI Expert AMA Marketer of the Year



**Tod Eason** CFO / COO 30 Years Business, Finance Built & sold CultureMap.com



Alec Walker, MBA Stanford Grad

#### Team

**Kevin Chung Andrew Kirby Jerry Castanos** Jeremy Friedrichson

Linguistics expert turned ML Engineer NY State Public Educator turned ML Engineer Product Manager: 2 Decades of DoD contracting Retired USAF Software Security Engineer

#### **Advisory Board**

Dr. Kim William Gordon Victor Shilo Wolf Ruzicka

PhD in Education w/ Al Adaptive Learning Decades of AI/ML Architecture Experience Added 12 deals to Commercial Pipeline overnight



#### **Alan Harris**

alan@growthengineai.com

# APPENDIX

### SOURCES

- 1. <a href="https://omniplexlearning.com/blog/how-long-does-elearning-take-to-develop/">https://omniplexlearning.com/blog/how-long-does-elearning-take-to-develop/</a>
- https://www3.sunybroome.edu/online/faculty-onl ine/how-long-does-it-take-to-develop-an-onlinecourse/
- https://code.dblock.org/2012/03/14/how-long-do es-it-take-to-create-a-12-lecture-8-week-course. html
- 4. <a href="https://thebestschools.org/magazine/online-education-history/">https://thebestschools.org/magazine/online-education-history/</a>
- https://www.worldmanager.com/resources/first-l ms/
- 6. <a href="https://docsend.com/view/46re7448wryfbavh">https://docsend.com/view/46re7448wryfbavh</a>

### **PRODUCT VIDEOS**

#### **SmarterMinds: 60-Second Overview**

https://docsend.com/view/eufv7dw25ky5qq2p

#### **How to Drive a Russian Tank**

https://youtube.com/shorts/8S1vLvxxq9s

#### **Document Parsing**

https://youtu.be/6Pta-1vYi 0

#### **Course Creation**

https://youtu.be/kEaMTVXeeqY

#### **Instructor LMS Navigation**

https://youtu.be/mw HywkJ57U

#### **Knowledge Graph Demo (no audio)**

https://youtu.be/Y2HYNIP4gEs

#### **Schedule A Product Demo**

https://calendly.com/alec-growth-engine/30min

# SAMPLE OF GENERATED QUESTIONS

\* Generating questions for documents matching the query 'Missile Maintainence' WITH EMBEDDINGS

hes: 100% 1/1 [00:00<00:00, 15.78it/s]

#### Generated questions:

- What is secured to the missile stand from underneath?
- What is torqued to secure the missile to the stand?
- Who is directly responsible for maintaining the stand itself?
- How is the guided missile hoisting beam used?
- What is the MHU-186/E?
- How many different positions can the sling link and shackle be installed on the beam?
- What must be maintained in normal technical order configuration?
- How is the designed-in hardness of each wing kept?
- What section provides a look at what happens during a nuclear detonation?
- What are hardened to withstand each effect?
- What will provide a frame of reference and prepare for later discussions?
- What are the overarching goals of the AF?
- What is achieved through ample planning and resourcing of the logistics infrastructure?
- The AF forecasts what parts will be needed to repair and maintain the weapon system partly by using what?
- How long ago were air launched cruise missiles fielded?
- What is the day-to-day sustainment of these processes?
- What is the primary purpose of the Level I test?
- What is performed after all missile component replacement and servicing is complete?
- How is the Level 1 test performed?
- How many test options are on the Level I test disk?
- What is another name for the weapon storage area?
- How many support rings and assemblies are in the RS handling fixture?
- Where is the payload transporter driven?
- What is the MF door referred to as?
- What must be securely closed so that it remains closed when the PT is driven over the pit?
- All snow and ice must be removed from what?
- What must not fall into MF pit and possibly onto personnel, equipment, or the RS?
- How long has the Minuteman ICBM been operational?
- What does the word "deployment" mean?
- What is the basic component of the ICBM weapon system?
- What does the missile need support in form of?
- What does the MMT replace when a missile quidance set reaches a certain number of hours?
- Where is Hill Air Force Base located?
- What is materiel management and stock commonly referred to as?
- What ensures that America's ICBM force remains a credible deterrent?
- What was much easier to periodically stitch up a tear in a sail than to wait until the wind tore a large hole in the sail?
- What should your primary focus always be on?
- Which concept is one of the most effective ways we can be proactive rather than reactive?
- What is critical to a successful mission?
  - What must a team do if their timeline does not allow it?
  - What gives the ICBM the capability to deliver its payload precisely to its designated target?
- What is the low vulnerability characteristic of the weapon system?
- How are the LFs and LCCs hardened to withstand attack?
- How many missiles are in a single squadron?

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	Category	Client	Contact	Summary	Value Proposition to Client	Calculation	Learners	Instructors	Annual Deal Size	Probability	Weighted Annual Deal Size
	Smarter Minds	Kroger	CIO	Our advisor has worked with Kroger's CIO before, and the firm is looking to potentially revamp the knowledge management system for the 8k engineers under the CTO. Part of this involves updating the education content.		\$80 * 420k ppl * 98.5% + \$750 * 420k ppl * 1.5%	413700	6300	\$29,547,000.00	5%	\$1,477,350.00
		Maryland State System (V&W)	(Advisor connection, senior leadership in area of partnerships)	Shopping for an LMS and focused on efficiency of content creation. Just took in a lot of private capital and need to spend on innovation. ~185k students and ~2k instructors.		\$60 * 165k ppl + \$750 * 2k ppl	165000	2000	\$11,400,000.00	10%	\$1,140,000.00
	Smarter Minds	SAP (K)	Chief Expert for Knowledge Graph and Semantic Technology to the Al Unit at SAP	Felix is looking for the right internal product team to begin with and is also exploring HR. 122k people in SAP.	Reduce resources required to make quality training programs, have quality training programs available faster to those who need them, enable individual learners to comprehend content faster.	\$80 * 122k ppl * 98.5% + \$750 * 122k ppl * 1.5%	120170	1830	\$8,582,700.00	30%	\$2,574,810.00
	Smarter Minds		Team Leader	Barry is exploring using Smarter Minds to help engineers in the US with safety training, 75,000 people in Chevron.		\$60 * 75k ppl * 98.5% + \$750 * 75k ppl * 1.5%	73875	1125	\$5,276,250.00	5%	\$263,812.50
		Deutsche Bank (K)	Consultant working for Deutsche Bank helping them determine Al solutions to work with.	Kader is setting up a meeting with their training development team. 71,000 people in Deutsche Bank.		\$60 * 72k ppl * 98.5% + \$750 * 72k ppl * 1.5%	70920	1080	\$5,065,200.00	10%	\$508,520.00
	Smarter Minds			Meeting with head of data science to prove out our capabilities. 24k people in KBR.		\$60 * 24k ppl * 98.5% + \$750 * 24k ppl * 1.5%	23640	360	\$1,681,200.00	5%	\$84,080.00
		Johns Manville (A)	Director of Compliance	The organization, 8k people, is reeling from impact of sanctions on their supply chain, and they are devoting more capital to strengthening internal training on documantation and protocol.		\$60 * 8k ppl * 98.5% * \$750 * 8k ppl * 1.5%	7880	120	\$582,800.00	5%	\$28,140.00
	Smarter Minds	Cooley (V&W)	EVP, Global Business Development	Our advisors are connected to Cooley through this EVP. They have an initiative to increase internal training efficiency. 3,000 people at Cooley.  DCRA wants to democratize the inspection business via an uber-like		\$60 * 3k ppl * 98.5% + \$750 * 3k ppl * 1.5%	2955	45	\$211,050.00	5%	\$10,552.50
	Smarter Minds	DCRA (V&W)	Head consulting developer	model. The agency will need to educate and certify all the inspectors on their platform. Currently ~100 inspectors on the platform, and each will need admin privileges.  MBA students submit videos and written assignments that must be		\$750 * 100 ppl	0	100	\$75,000.00	15%	\$11,250.00
	API	Kira Talent	сто	evaluated both in their linguistic effectiveness and efficiency. The organization is dealing with 1.8bn assignments every year. Perhaps 10% of these are eligible to be processed by GEAI APIs.	Each assignment is automatically given a scoring based on its difficulty to comprehend, drastically reducing the time it takes humans to score assignments.	\$0.15 * 180M + \$2400		\$27,002,400.00	5%	\$1,350,120.00	
COMMERCIAL PIPELINE	API	Blackboard (V&W)	Lead investors	Blackboard's investors are our most likely path into the firm. Their LMS system may sell better and for more if they can speed up the content ingestion and question creation components. ~17k schools use Blackboard, each with ~26 lasses using the system, each with ~100 calls for content ingestion and question generation.	Every time an LMS gets used by a school district, we can become part of that kind of installation. Don't have to make all the heavy lifts.	\$.15 * 17k * 25 * 100 * \$2400		\$8,377,400.00	10%	\$637,740.00	
COMMERCIAL PIPELINE	API	GMAC (V&W)	Head GMAT Algorithm Developer	Meeting with team lead for question acquisition. Currently, we assume they are charged \$1 per question, and each question can only be used once. About 250k people take the GMAT each year, each paying \$250, and there are 80 questions per exam.	Reduce the costs to acquire questions to stock the GMAT exams.	\$.15*250k*80 + \$2400		\$3,002,400.00	15%	\$450,380.00	
	API	Learn to Win (A)	CEO	Generating a backlog of deals that they cannot execute because too slow to get material into their system. ~10 clients, ~10 use cases, ~5k curriculum calls and ~5k question calls per use case.	Speed up material ingestion and question generation.	\$.15 * 10 * 50 * 10k + \$2400		\$752,400.00	30%	\$225,720.00	
	API	Gather Voices (A)	CEO	They capture video interviews of their clients' end-user customers. Currently discussing pricing. They have ~200 clients, each with ~1000 video transcripts, each requiring ~5 API calls per year. Starting with 200 videos.	They want to white label some of our NLP capabilities to augment their product offering.	\$0.15 * 200 * 1k * 5 + \$2400		\$152,400.00	70%	\$108,680.00	
	API	MIDAS Education	CEO via shared angel investor	MIDAS Education has 600k students on their platform, LinkedIn for K-12. They offer microcredentials for students and are exploring how they could be powered by our QA API. ~5 API calls per question, ~1000 questions per section, and ~200 sections per year.	Supplement existing service with question generation.	\$0.15 * 200 * 1k * 5 + \$2400		\$152,400.00	10%	\$15,240.00	
	API	Warrior Centric Health (A)	CEO	They provide training for health professionals, and the content is dynamic. One of their cilents has 800k learners, each dealing with at least one patient. The recurring bottleneck is getting relevant content about the patients into the Warrior Centric Health instruction system in a timely manner.	Speed up material ingestion and question generation.	\$.15 ° 800k + \$2400		\$122,400.00	5%	\$8,120.00	
	API	Prior Art Discovery (A)	Former Digital Data Senior Manager - Accenture Digital	Chris is exploring how he can use our NLP to augment his solutions for patent services organizations. ~20 firms, each with ~100 clients per year, each requiring ~200 API calls. Would start with just one client.	Use our topic identification APIs to reduce the time it takes to find overlapping prior art.	\$.30 * 20 * 100 * 200 + \$2400		\$62,400.00	5%	\$3,120.00	
	API	Intelligence Squared (A)	Former Senior Program Manager, Google for Education	Dan is exploring how intelligence Squared can use our NLP to pull out factual quiz questions (e.g., numbers and dates) from the research brief sources. 4 debates per month, 100 calls per debate. Opportunity to spread to more podcasts. Good publicity.	Augment the service currently provided by Intelligence Squared.	\$.30 * 48 * 100 + \$2400		\$3,840.00	10%	\$384.00	
	R&D	Stanford Human-Centered AI (A)	Managing Director	Panos is helping us look for a professor with whom we can apply for a government STTR grant to explore the merits of our adaptive learning capabilities in the Air Force versus traditional one-speed one-curriculum fits-all education model. Grant size is ~\$150k.	For Stanford: Support case for adaptive learning through applies-to-apples study. For Air Force: Build evidence to revamp education system for better defense capabilities.		\$150k		\$150,000.00	10%	\$15,000.00
	R&D	LumiShield Tech (A)	CEO	Hunaid has received feedback from the Air Force that they would like to use his product if they can apply it to their equipment directly themselves rather than have his people do it. What holds this back is his creating effective training from their processes and from his.	For LumiShield: Transition them from a support service provider to a product company. For Air Force: Train their people on safe and effective use of LumiShield's product.		\$50k		\$50,000.00	10%	\$5,000.00
	R&D	Clarabridge/Qualtrics (V&W)	Chief Strategy Officer	experiment. Estimate \$30k per year to support R&D/POC.	Want to augment their offerings through white labeling the capabilities of others.		\$50k		\$50,000.00	15%	\$7,500.00
	R&D	Airflow/Astronomer (V&W)	Head of Business Operations	Our advisors tell us Airflow is constantly looking for APIs to explore through third parties. Good opportunity to experiment. Estimate \$30k per year to support R&D/POC.	Want to augment their offerings through white labeling the capabilities of others.		\$50k		\$50,000.00	15%	\$7,500.00
© Growth Engine, Inc. 2021. All rights reserved.	R&D	Tivian (V&W)	CEO	Our advisors tell us Tivian is constantly looking for APIs to explore through third parties. Good opportunity to experiment. Estimate \$30k per year to support R&D/POC.	Want to augment their offerings through white labeling the capabilities of others.		\$50k		\$50,000.00	15%	\$7,500.00