

Transforming Workforce Readiness with an AI-Powered Learning Ecosystem



About the Client

ACI Learning is a professional training company located in Colorado. They focus on the concept of "lifetime learning" in the fields of Audit, Cybersecurity, and IT.

Operational in the global Edtech industry, the organization offers specialized learning solutions which include browser-based Skill Labs, on-demand video contents, and instructor-led bootcamps that prepared to build job-ready competencies.

ACI Learning caters to individual learners, enterprise teams and government agencies. For example, the U. S. Department of Defence is just one of the many government customers ACI Learning works with. These clients benefit from services that help ensure compliance with certification requirements and facilitate closing of workforce skill gaps on a large scale.

A total of more than 250,000 professionals from six continents have been trained by ACI Learning and an industry leading 80%+ course completion rate, ACI Learning continues to bring measurable learning outcome through innovation and tech-led training models.

Business Requirements

As the number of learners continues to grow around the world at different time zones, ACI Learning needed a scalable and intelligent way to help learners in real time, increase completion rates, and have consistently high certification outcomes.

The present support model had relied on instructor-led interactions and traditional helpdesk systems. However, this method failed to provide learners needing quick access to immediate technical assistance or feedback on lab exercises. As enrollment numbers around the world continued to rise, the human-based support model became unsustainable.

The lack of modernization posed significant risks for ACI Learning that may impact student success and operational efficiency thus jeopardizing their leadership position in the AI enabled education system.



Key Requirements Included:

1 Missed Career Milestones

Lack of immediate clarification on complex concepts impacted learners' readiness for certification exams and delayed career progression.

2 High Operational Support Overhead

Mentors spent significant time addressing repetitive foundational queries, limiting their capacity to provide advanced coaching and strategic guidance.

3 Inconsistent Knowledge Validation

Manual assessment processes introduced variability in evaluating learner progress and readiness.

4 Limited Scalability

Global expansion required proportional increases in instructor headcount, creating constraints on operational scalability.

5 Reduced Certification Success Rates

Delayed access to support slowed learner progression through certification pathways, affecting overall success rates.

6 Competitive Risk

Incompetence to adopt AI-driven personalization at scale presents a risk to sustaining market leadership in a competitive EdTech landscape.

Happiest Minds Solution

Happiest Minds designed and implemented an AI-powered learning ecosystem that delivers real-time mentorship and scalable support through Generative AI and Retrieval-Augmented Generation (RAG) architecture.

The solution enables contextual, accurate, and interactive learning assistance by grounding AI responses in faculty-approved course materials while providing a seamless digital learning experience across global learners.

AI-Powered Learning Intelligence

1 Conversational AI Mentorship (Coach Maci)

The platform is created on an event-driven architecture which can give seamless processing of streaming data with low latency and high availability

2 Course-Level Summarization

The platform generates concise summaries of course modules, enhancing knowledge retention and simplifying complex concepts for faster comprehension.

3 Interactive Knowledge Validation

AI-powered interactions and assessments enable continuous validation of learner understanding, improving readiness for certification outcomes.

4 Guided Learning Pathways

The system dynamically delivers structured learning journeys tailored to individual progress and identified knowledge gaps.

Scalable Learning Architecture

1 Personalized, Always-On Learning Support

Continuous, AI-driven engagement ensures improved student completion and retention rates through real-time assistance and adaptive learning

2 Outcome-Driven Learning Enablement

Timely guidance and ongoing validation mechanisms enhance certification pass rates and improve overall job readiness.

3 Global Scalability without Headcount Expansion

The platform delivers consistent learning support across geographies and time zones without increasing instructor dependency, enabling efficient global

Integrated Learning Data Ecosystem

1 Centralized Knowledge Repository

All course content is securely stored, indexed, and made accessible, enabling accurate AI-driven retrieval and context-aware response generation.

2 Analytics-Driven Insights (myACI Platform)

Provides real-time visibility into learner engagement, behavior, and performance, enabling continuous optimization of training programs and measurable

3 Secure and Compliant Infrastructure

Robust data security frameworks ensure controlled access, encryption, and compliance with enterprise and regulatory standards.

Success Metrics (KPIs) and Performance

Course completion rate $\geq 80\%$

1

Achieve high completion rates significantly above industry benchmarks

Active courses: 3

Learner engagement metrics

3

Track chatbot interaction frequency and overall engagement levels

Monthly queries: ~400 per course

Improved assessment performance

5

Enhance learner preparedness through continuous validation

Monthly output tokens: ~400K

Job placement success $\geq 70\%$

2

Ensure learners achieve measurable career outcomes.

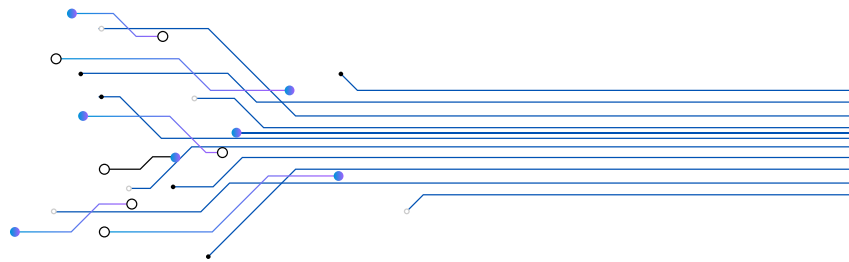
Total content assets: ~750 PDFs

Reduced time-to-completion

4

Accelerate learning progression through real-time guidance

Monthly input tokens: ~1.2M



Technology Stack

- **Generative AI & Retrieval:** Amazon Bedrock, Retrieve and Generate
- **Storage & Content Management:** Amazon S3
- **Search & Indexing:** OpenSearch Serverless
- **Security & Encryption:** IAM, KMS
- **Application Hosting:** Amazon ECS Fargate
- **Automation & Processing:** AWS Lambda
- **Monitoring & Observability:** CloudWatch
- **Analytics Platform:** myACI Dashboard



Value Delivered

✓ Improved course completion rates

Achieved 80–85% completion rates, significantly exceeding industry

✓ 24/7 learner support at scale

Enabled real-time assistance across global time zones

✓ Enhanced learner engagement

AI-driven interactions reduced dropout rates and improved content consumption

✓ Operational efficiency gains

Automated resolution of learner queries reduced instructor dependency

✓ Data-driven decision making

Analytics dashboards provided insights to optimize training effectiveness and ROI

✓ Improved certification readiness

Real-time validation and guidance enhanced learner preparedness

✓ Scalable growth without headcount increase

Enabled expansion of global learning operations without proportional staffing requirements



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Happiest Minds Technologies Limited (BSE, NSE: HAPPSTMNDS) is an AI First, customer-centric digital engineering company committed to delivering 'Happiest People . Happiest Customers'. With an integrated approach that spans from chip to cloud, Happiest Minds delivers secure and scalable solutions across product engineering, cybersecurity, analytics , and automation platforms. Happiest Minds brings purpose and precision to every engagement, helping enterprises solve complex business challenges and fast-track their digital evolution across industry sectors such as Banking, Financial Services & Insurance (BFSI), EdTech, Healthcare & Life Sciences, Hi-Tech and Media & Entertainment, Industrial, Manufacturing, Energy & Utilities, and Retail, CPG & Logistics.

Happiest Minds has been honored by both the Golden Peacock Awards and the Institute of Company Secretaries of India (ICSI) for its exemplary Corporate Governance practices. Guided by its mission of 'Happiest People . Happiest Customers' and consistently recognized as a great place to work, Happiest Minds is headquartered in Bengaluru, India, with a global presence across the Americas, UK, Europe, Australia, the Middle East, Africa, and Asia.

To know more about our offerings. Please write to us at business@happiestminds.com