

LMS Integration Guide

The Cognition Factory — HAL-E and AAE

1. Overview

This guide provides a high-level overview of how HAL-E and AAE can be integrated with Learning Management Systems (LMS). It is intended for learning leaders, IT stakeholders, and decision-makers evaluating integration options.

2. Integration Approaches

HAL-E and AAE support multiple integration patterns depending on organizational needs and technical capabilities:

Standalone Deployment

Users access HAL-E and AAE directly through our web interface. This approach requires minimal technical integration and is suitable for organizations that want to pilot the systems quickly or maintain separation from existing platforms.

LTI Integration

HAL-E and AAE can be integrated as LTI (Learning Tools Interoperability) tools within many modern LMS platforms. This allows users to launch the systems directly from within their existing learning environment while maintaining single sign-on.

API-Driven Integration

For organizations with custom learning platforms or specific workflow requirements, our APIs enable deeper integration. This approach supports automated user provisioning, progress synchronization, and custom reporting.

3. Common LMS Platforms

We have experience integrating with a range of platforms, including:

- Canvas (Instructure)
- Blackboard Learn
- Moodle
- Cornerstone OnDemand
- Docebo
- Custom or proprietary learning platforms

4. Data Flow and Security

All integrations are designed with data minimization and security in mind. Typical data exchanged includes user identifiers, course or domain mappings, and progress or assessment results. Detailed data flow diagrams and security controls are provided during the technical discovery phase of implementation.

5. Recommended Integration Patterns

For most organizations, we recommend starting with LTI integration where supported, as it offers a strong balance of user experience and implementation effort. Organizations with complex existing ecosystems or specific compliance requirements often benefit from a phased approach beginning with standalone access before moving to deeper API integration.

6. Implementation Considerations

Key factors that influence integration approach include:

- Existing identity provider (SSO) infrastructure
- Current LMS capabilities and roadmap
- Data residency or sovereignty requirements
- Desired level of automation vs. manual administration
- Timeline and internal technical resources available

7. Next Steps

Detailed technical specifications, integration architecture recommendations, and implementation timelines are developed during the Discovery phase of an enterprise deployment. We work closely with your technical and learning teams to determine the most appropriate integration pattern for your environment.

8. Version History

Version 1.0 — July 2026 — Initial release