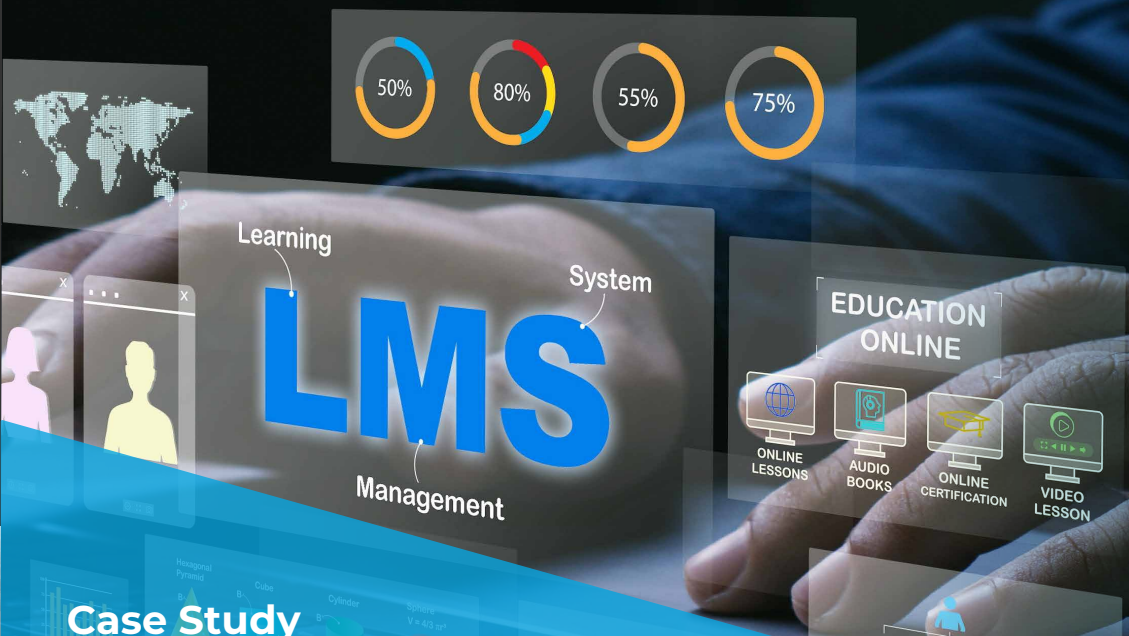




Telliant Systems
3180 North Point Pkwy
Alpharetta, GA 30005

678-892-2800
www.telliant.com

Case Study

Advancing Digital Learning with AI-Powered Lessons and Seamless LMS Integration

The Client

The client is an online learning platform created through collaboration among educators, scientists, and researchers at the Sana Project at MIT, Woods Hole.

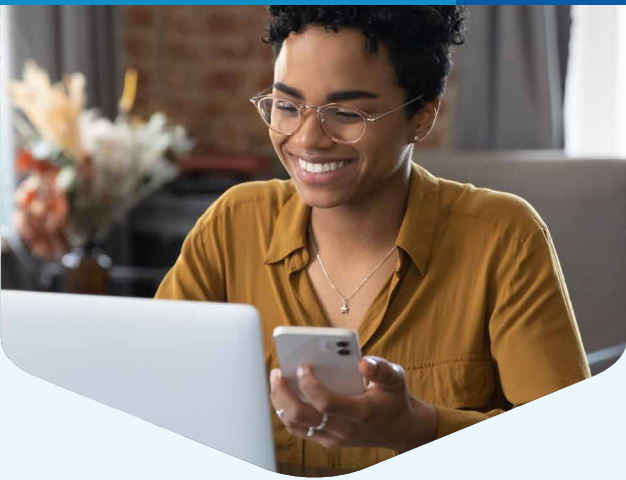
Oceanographic Institution, and 4pt0 Schools. Supported by the Office of Naval Research Education and Workforce and the Naval STEM Coordination Office, the platform was designed to advance effective and equitable learning outcomes.

Since launching in 2018, the platform has grown to support more than 3,000 teachers across STEM, CTE, Art, Music, and Special Education. Educators use it to create, deliver, and assess differentiated, project-based lessons for diverse learners.

The Challenge

The client inherited a platform built by a previous vendor that had become difficult to use and support. An outdated interface, recurring service issues, limited requirements documentation, integration gaps, and the absence of modern AI capabilities were creating friction for educators and learners. The client needed a more reliable, intuitive platform that could support evolving learning workflows.

- ✓ **User Experience:** Modernize an outdated, inconsistent interface to improve navigation and adoption.
- ✓ **Platform Reliability:** Reduce downtime, delayed fixes, and support disruptions affecting learning delivery.
- ✓ **Requirements Definition:** Establish priorities and scope despite incomplete documentation from the prior solution.
- ✓ **Learning Integrations:** Connect securely with LMS platforms and third-party learning tools.
- ✓ **AI Enablement:** Introduce AI-assisted content creation and responsive support for students.



Technology Environment

Telliant worked with the client to identify/create the most suitable tech-stack for the project to include:

LANGUAGES

- .NET Framework 4.6
- Angular 2
- HTML, CSS, JavaScript

API / DATA

- Web API
- Entity Framework
- MS SQL

CLOUD

- Azure

LANGUAGES

- ChatGPT-based AI

About Us

Telliant Systems, offers a diverse selection of custom software product development services, such as product strategy, software design, application development, QA/Testing, & application management services. Expert teams are available to develop web, enterprise, & mobile app, including iOS & Android development.

Solution Highlights

Following a comprehensive assessment, Telliant established a modernization strategy focused on usability, stability, integration, and continuous stakeholder feedback. The engagement combined platform improvements with AI-enabled learning capabilities to create a more flexible digital learning experience.

- ✔ **Discovery & Requirements:** Performed gap analysis, stakeholder sessions, workshops, and iterative reviews to define evolving priorities.
- ✔ **Modern UI/UX:** Redesigned the application with a responsive, user-friendly interface, simpler navigation, and fewer clicks for key tasks.
- ✔ **AI-Powered Learning:** Integrated ChatGPT-based AI to help educators generate lessons and assignments while providing students AI-assisted support.
- ✔ **LTI & Classroom Integration:** Implemented LTI, Google Classroom integration, and Google/Microsoft authentication with SSO and grade synchronization.

Insights and Results

Improved the day-to-day experience for educators and learners while making the platform more reliable, and easier to evolve.

- ✔ **80% reduction in downtime** through platform stabilization and proactive support.
- ✔ **55% increase in learner engagement** following the redesigned user experience.
- ✔ **40% reduction in content creation time** for educators through AI-assisted lesson and assignment generation.

