

Case Study

Global Education Company

Enabling 13 million students to realize their academic promise

Background

A global education company offers one of the leading K–12 learning management systems (LMS) that includes customizable curriculum, assessment and administration tools in one seamless, personalized solution. The company wanted the platform to exceed the expectations of students, teachers, administrators and parents, while also serving as a robust and reliable technology base for future product innovation.

The LMS provides access to the company's rich library of digital textbooks, educational videos and supplemental exercises across subjects ranging from mathematics to foreign languages, and it enables students to receive instant feedback on performance – one of the most immediate and effective benefits of digital learning.

In addition, the platform enables primary and secondary educators to organize and share individual assignments and assessments and track student success, freeing precious time for one-on-one teaching. The solution enables administrators to compile district performance reports and view the progress of students and teachers alike.

Challenges

With more than 13 million users, the LMS platform is strategically important to the company, but the organization's development team was largely absorbed addressing product maintenance and user support issues. This monopolized valuable manpower that might otherwise have been focused on the timely delivery of feature enhancements.

The company wanted to outsource maintenance and support and reduce the need for eight full-time engineers to be dedicated to quality assurance who might otherwise be focused on building new features. The company also needed a methodical process for improving product performance and reliability before these issues affected end user satisfaction. And, the company was interested in prototyping new innovative products for the K–12 education market.

Solution

Ness Software Engineering Services first tackled maintenance and support for the LMS using a rigorous process to document and eliminate bug issues one at a time, proceeding through more than15,000 quality assurance test cases. Next, Ness established process improvements to streamline the early identification and correction of potential QA issues, freeing the company's internal development team to concentrate on feature enhancements and new product development.

> *"The Ness team helped our company take another step into the future of education and learning. You guys have done an amazing job. Keep it up!"*

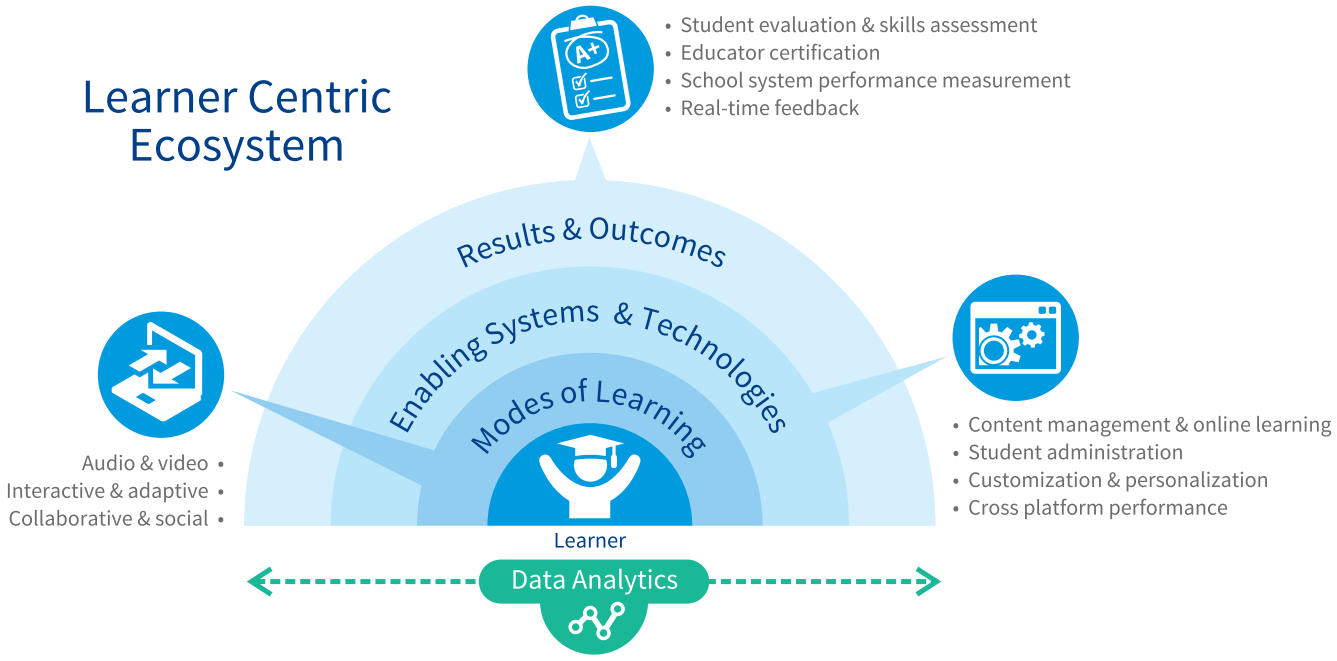
Ness also analyzed and made any needed product architecture changes to improve the integrity of the platform. This assured that it would perform as expected, gaining the trust of users and laying the groundwork for future feature additions that capitalized on data analytics to provide an individually tailored user experience that worked flawlessly across mobile, tablet, laptop and desktop devices.

Ness developed a proof of concept (POC) solution for the education publisher for a mobile application targeted at English as Second Language (ESL) learners that incorporated entertaining and engaging game-play features.

With several states proposing or implementing education reforms that include teacher evaluations, the publisher saw a market opportunity to introduce a performance evaluation system for new educators that could evaluate not only subject matter knowledge, but also competency in the classroom. Ness collaborated with the internal engineering team to architect and build this multi-dimensional performance review solution using an Agile SCRUM development approach. The solution integrates with the industry-leading open source content management system (CMS) and internal and third-party school registration systems.

Results

- Established a 'follow the sun' model for managed application support and monitoring services that is available 24/7, minimizing downtime and assuring the rapid resolution of customer issues
- Increased productivity of the Quality Assurance team by 50 percent
- Reduced maintenance and support manpower requirements from eight down to two
- Freed development resources to focus on feature enhancement and new product innovation
- Implemented a Continuous Integration development process that generated automated builds and enforced acceptance testing from the start
- Reduced the development time for new features by 50 percent using Agile SCRUM practices
- Sped the introduction of new features and products by 88 percent by shifting to an incremental, iterative development process
- Built a 'self-funding' model through efficiencies to enable development of more product features for no extra spend



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