

CASE STUDY

Lincoln Interactive – Sitefinity frees online learning provider to concentrate on creating innovative educational content



OVERVIEW

REGION

US

SECTOR

Education

CUSTOMER PROFILE

The National Network of Digital Schools (NNDS) is the sole provider of the Lincoln Interactive curriculum, and delivers online learning to more than 200 schools across the US, with fully accredited courses covering pre-school through 12th grade.

BUSINESS SITUATION

NNDS found itself constrained by its existing learning management system, which did not fit its business model. It needed a flexible web content management platform that would free its Lincoln Interactive authoring team to focus on creating innovative education experiences.

SOLUTION

Sitefinity CMS by Telerik provided a flexible web content management platform that integrated with Lincoln Interactive's existing infrastructure and provided an intuitive drag-and-drop authoring environment.

BENEFITS

- Easy to use interface frees authors to innovate with content
- Rapid development of 50 widgets to provide custom functionality
- Final implementation will support 28,000 pages, 2600 games and 260 hours of video

Online learning is exploding. However, not all online learning systems deliver the flexibility to be truly innovative. The National Network of Digital Schools (NNDS), exclusive provider of the Lincoln Interactive curriculum, found themselves constrained by the shortcomings of a traditional learning management system. Building on Sitefinity CMS by Telerik, they created their own custom solution – a next generation content authoring environment that has freed them to focus on developing innovative content.



www.lincolninteractive.org



Sitefinity has given us the freedom to innovate. Now we can focus on creating better, more engaging educational experiences for our students."

Danielle Verba,
Software Design Manager,
National Network of Digital Schools

BACKGROUND

Online learning is bringing new kinds of personalization and interactivity to education. Just as consumer technology has put individuals in control of their personal information, online delivery offers students a uniquely tailored learning experience. With a curriculum of more than 280 fully accredited courses covering pre-school to 12th grade, Lincoln Interactive is at the forefront of this movement.

For a student learning with the Lincoln Interactive curriculum, 'interactive' means more than just taking classes on a computer. Lincoln Interactive uses technology – especially interactive videos, games and learning experiences – to bring lessons to life and engage each student in the learning process. Further, classroom teachers often deploy Lincoln Interactive's content alongside their own, creating a hybrid learning environment. Courses can be paced to suit individual students, and detailed records of student attainment

means teachers can quickly identify students' needs.

"We use technology to make it possible for students to succeed," says Danielle Verba, Software Design Manager for the National Network of Digital Schools. "Wherever a student may be, and whatever situation they may be in, our technology helps them learn."

THE CHALLENGE

Every day, the Lincoln Interactive curriculum is used in more than 200 schools in 11 states across the US. The volume of material is impressive: the courseware involves 28,000 pages of content, over 2600 game instances and more than 260 hours of video. This is delivered on demand to thousands of students, teachers and other educational staff.

However, finding the right content delivery technology was not simply a matter of identifying a platform capable of handling large volumes of content. Lincoln Interactive's content creation teams needed a flexible, easy-to-use authoring environment that would not impose constraints on their way of working, while freeing them to concentrate on building innovative, engaging courses.

"We were using a very popular learning management system," says Danielle. "Unfortunately, we increasingly found it was holding us back. It assumes that individual teachers provide and manage all the coursework, but our model is to supply pre-prepared coursework which teachers can use as they please. Our customers look to us to provide the curriculum, so our content is central to what we do. In the end, we realized that our previous system didn't match our business needs and that we would have to look elsewhere."



For Lincoln Interactive, conventional off the shelf solutions involved too many compromises. However, creating a content delivery system from the ground up would have been an insurmountable obstacle. Instead, they needed to base their authoring system on a web content management (WCM) platform that could handle scale and complexity, while still providing flexibility and ease of use.

"We had a demanding set of requirements, but most of all we needed a platform that would give us the freedom to develop innovative, flexible content."

THE SOLUTION

Lincoln Interactive selected Sitefinity CMS by Telerik to provide the content publishing platform for its learning management system.

EASY AUTHORING

For the company's team of approximately 25 content authors, Sitefinity's intuitive page authoring environment makes it easy to focus on content and not the technicalities. Pages are created, edited and styled in Sitefinity's WYSIWYG page editor, with no coding skills required. Text can be pasted from troublesome sources such as Word with unnecessary formatting automatically stripped out. Deploying rich interactive functionality is simply a matter of dragging and dropping one of the custom widgets developed by Lincoln Interactive's in-house team.

HIGHLY CUSTOMIZABLE

"We developed more than fifty custom widgets," says Danielle. "These provide content and functionality. For example, every page shows a Student Explanation widget which tells the student 'this is what you're going to do and

this is what you'll learn by doing it'. Another popular feature is the Supplies widget which tells students what materials they need for their next lesson, so they can be prepared."

When a page has been created, it passes from authors to reviewers, who use a custom Comments widget to add notes during the revision process. When editors finally publish the page, it remains invisible to subscribers until it has passed final quality assurance. The whole process is managed through the Sitefinity interface.

Sitefinity also helps the team manage the high volume of content. With some courses running to thousands of pages, setting up the framework for a course is a challenge in itself. Lincoln Interactive has customized Sitefinity to take care of this. Administrators use a custom backend environment to specify the structure of a course, determining nodes and pages, and applying visual themes and widgets. They also define additional information such as metadata and user roles for content authors and front end users. Sitefinity does the rest. "The system automatically creates the pages and all applicable roles so that users can be assigned appropriately and course authoring can begin. This saves a lot of time and effort."

DEVELOPER-FRIENDLY

Delivering all this custom functionality did not require a large development resource.

THE SITEFINITY DIFFERENCE: HOW THE SYSTEM ADAPTS TO YOUR NEEDS

Sitefinity makes it easy to create custom solutions that are perfectly adapted to your organization.

For content creators, Sitefinity empowers users with control over functionality normally restricted to developers, including sophisticated features such as Responsive Design and Content Personalization.

For administrators, functionality can easily be locked down with Sitefinity's granular permissions control, creating a task-focused environment for users. Support for Windows Workflow Foundation means Sitefinity integrates seamlessly with business-critical processes such as mandatory pre-publication approval.

For developers, Sitefinity comes with tools that accelerate the development cycle. Sitefinity Thunder makes it possible to create and deploy extensions without leaving Visual Studio, while the Module Builder automates the creation of sophisticated content types without coding.

Sitefinity integrates with existing infrastructure. Using the Provider Model and supporting multiple providers, Sitefinity pulls in data from disparate sources, while making its own data easily accessible through its fully exposed API.

These features – and more – mean Sitefinity adapts to your organization's needs, however you like to work.



We did not know Sitefinity before starting this project. But it was easy for us to get up and running."

Danielle Verba,
Software Design Manager,
National Network of Digital Schools

Lincoln Interactive's eight-strong in-house team built and launched the system in less than a year. This included integration with existing infrastructure – Active Directory, a CRM and a grade-book system – as well as deployment to the company's own datacenter.

"We did not know Sitefinity before starting this project. We were familiar with .NET development patterns and this meant it was easy for us to get up and running."

HIGHLY SCALABLE

Front-end users benefit from Sitefinity's scalability. To date, 4,000 users have been migrated to Sitefinity. They are served by five dedicated servers which use Sitefinity's built-in load-balancing functionality. This scalable architecture will continue to support Lincoln Interactive as more courses are migrated to Sitefinity. Best of all, Sitefinity's licensing is based on the number of top-level domains and concurrent backend

users, meaning that Lincoln Interactive can deploy additional servers at any time without penalty.

THE RESULT

Lincoln Interactive has already moved its courses covering pre-school through 4th grade over to Sitefinity and all remaining course content will be delivered by Sitefinity within 3-4 years.

"The biggest benefit of Sitefinity is that we can edit content so much more easily. Previously, making changes involved a complex process. Now we can make changes quickly – if someone reports that we have provided an incorrect answer for a math question, we can fix it in minutes."

Lincoln Interactive's customers also like the change. "The site looks better and works faster," says Danielle. "We have been able to implement innovative new functionality and we have a lot more in the pipeline."

THE VERDICT

"Sitefinity has given us the freedom to innovate," says Danielle. "It supports the way we want to work, and it frees us to focus on creating better, more engaging educational experiences for our students."

ABOUT LINCOLN INTERACTIVE

Lincoln Interactive is a fully-accredited pre-school through graduation curriculum provided by the National Network of Digital Schools. The Lincoln Interactive curriculum is unique because it blends lesson content with technology in the 21st century classroom. Students learn using web casts, PowerPoint presentations, interactive labs, discussion boards, and more. Each course can be completed at a student's own pace.

ABOUT SITEFINITY

Sitefinity is Telerik's award-winning web content management and collaboration platform. Sitefinity brings an intuitive, drag and drop page design environment to business users while delivering high levels of developer productivity. Sitefinity powers more than 10,000 websites worldwide.

ABOUT TELERIK

Telerik is the market-leading provider of end-to-end solutions for application development, automated software testing, agile project management, reporting, and content management across all major Microsoft development platforms. Telerik is trusted by more than 100,000 customers worldwide for its innovation and industry-best technical support.

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