case study

United Cerebral Palsy of Greater Chicago (UCPGC) and Infinitec empowers children with disabilities & their teachers with new technology in the classroom initiatives

technology services group

Customer
United Cerebral Palsy
Association of Greater
Chicago (UCPGC)
7550 W. 183rd Street
Tinley Park, IL 60477

Industry
Nonprofit

Solution
Document Management
Web Content Management
Online Community
Management

Products
Alfresco Enterprise 3.4.1

Liferay Portal

Adobe Connect eLearning

Amazon Elastic Compute
Cloud (Amazon EC2)

Ubuntu Lucid LTS 64-bit

Sun JDK

Tomcat

Partner
Technology Services
Group (TSG)

Challenge

The mission of United Cerebral Palsy Association of Greater Chicago (UCPGC) is to advance independence and promote inclusive opportunities for children and adults with disabilities. Infinitec is a technology program of UCPGC that works with schools and teachers to improve academic success for all students, particularly those with disabilities, by promoting the use of assistive and educational technologies.

UCPGC / Infinitec faced two major business challenges, both of which could be addressed through an improved and streamlined content management approach.

1) Myinfinitec.org — Web portal

UCPGC / Infinitec has an extensive library containing thousands of digital learning objects (documents, videos and other media) that are used to instruct teachers and provide them with important teaching resources. UCPGC / Infinitec needed a way to improve the management of this content and make it more accessible to its community of 20,000+ K-12 teachers. Previously these learning objects were presented on the Myinfinitec.org web portal through a complex set of static HTML pages. However the website was too complex for users to navigate and managing content was difficult and expensive. UCPGC's recent implementation of the Adobe Connect platform, to stream its library of training videos and *(continued)*

Results

- Empowers children with disabilities
- Online community for teachers to share ideas
- Provides continuing education for teachers
- Access to 11,000 books and classroom materials in multiple digital formats
- More than 500 school districts with over 2000 documents downloaded each month
- Supports federal mandate to ensure students with disabilities have access to curriculum
- Easy to search content repository
- Frees up time for teachers to spend with students
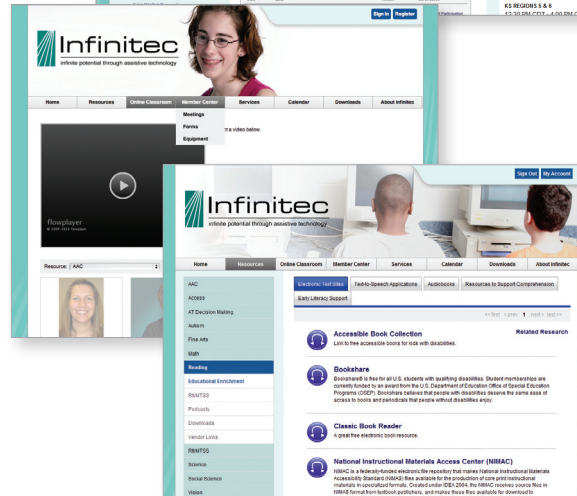- Replaced Documentum with Alfresco

> " Our motto is 'life without limits for people with disabilities' and Alfresco is helping us achieve this. By using best of breed technology like Alfresco and Liferay combined with our knowledgeable development partner, TSG, we are able to enrich the lives of children and adults with disabilities and provide teachers with the resources they need. We look forward to expanding our use of Alfresco to build communities for educators where they can collaborate and share ideas. "

— Peggy Childs, Executive Vice President, Chief Operating Officer, UCP of Greater Chicago

presentations, prompted the organization to redesign its web portal. The new web platform would be tightly integrated with Adobe Connect. In addition, UCPGC/ Infinitec wanted to create an online collaborative community within its user-base, which could not be easily accomplish with its old static webpage environment. UCPGC / Infinitec needed a web content management system that was easy to integrate, included social collaboration tools and was scalable to meet the organization's planned expansion.

2) Online Repository for digital textbooks

The second challenge was the desire to launch a new program to help schools better serve students who may have vision disabilities, lack the strength and motor skills to physically hold books and turn pages, or whose learning disability affected their ability to process printed words on a page. Most of these students are proficient working with computers and electronic books. To help these students with print disabilities, teachers often scan the curriculum and books to make the learning material digitally accessible and easier for the student to access via computer screens or through audio files. Seeing an obvious need, UCPGC wanted to develop a program within Infinitec called InfiniTEXT. Enabled by an exemption to copyright laws which makes it easier to provide the printed curriculum to students with qualifying print disabilities, this program would provide a place for schools to upload and share access to scanned books and materials for distribution exclusively to children with disabilities. This would save teachers time and allow students with print disabilities to access the same classroom materials as their peers.

UCPGC / Infinitec realized that at the core of both of these challenges was a need for a secure development resource focused on document management and web content management to store the learning objects and digital textbooks. The need to integrate the platform with other solutions meant it had to be flexible and based on open standards. UCPGC / Infinitec had selected Amazon Cloud and any future technology purchases needed to operate securely in this environment. Equally important, UCPGC / Infinitec is a budget conscious non-profit, so the technology had to be cost effective over its lifetime from design, deployment and ongoing maintenance.
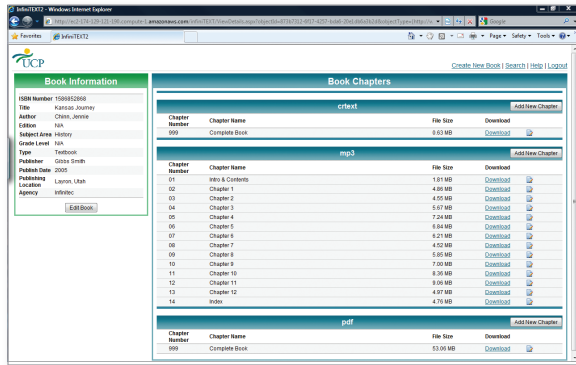
Solution

In 2009, UCPGC turned to a local open source consulting firm and donor, Technology Services Group (TSG) who was eager to get involved in the project offering its services pro bono.

InfiniTEXT — Digital Textbook Repository

TSG first built InfiniTEXT using EMC Documentum but quickly moved it to Alfresco Enterprise running on Amazon's Cloud Services. Alfresco provides UCPGC with a flexible solution that can adapt to changes quickly allowing the organization to add new features and document types as needed. It easily integrates with other technologies and has a significantly lower cost of ownership.

The current Alfresco repository has over 11,000 files each containing all or part of a K-12 textbook stored in one or more of five formats, including PDF, MP3, TXT, RTF and KES (a proprietary format compatible with a software program popular with schools). Teachers are able to easily search and download needed materials for students. Since its launch, the InfiniTEXT platform has expanded beyond its initial pilot of suburban Chicago schools and now serves more than 500 school districts in five states. Each month thousands of files are downloaded and provided to students who otherwise would not have access to the curriculum. (continued)

> We have been helping UCPGC and Infinitec fulfill their mission by leveraging Alfresco and Liferay to make content more accessible to children or adults with disabilities and their teachers. This is a great example of how nonprofits can benefit from open source and cloud technologies to provide innovative solutions while staying on budget.

— Dave Giordano, Founder and President, Technology Services Group, Inc.

Having teaching materials digitized helps to empower the students to be successful in the classroom.

Myinfinitec.org web portal

UCPGC quickly saw the benefits of Alfresco and is now leveraging it as the content repository for the newly designed Myinfinitec.org web portal which uses Liferay Portal for user management and integrates with Adobe Connect for managing and streaming on-demand eLearning modules. The combined Alfresco/Liferay/Adobe environment provides an interactive user experience and access to the thousands of digital learning objects and instructional videos to enhance the teaching of students. The platform also handles the administration of online exams for teachers, printing certificates of completion as well as an active online calendar of scheduled meetings and training events across five states.

Alfresco serves as the framework for the new social and collaborative offering that allows teachers to better share information on working with children and adults with disabilities. Future plans for the portal include leveraging the Alfresco Share interface to provide an online community for teachers to share ideas, ask questions and learn from other educators who work with students of similar age or disability.

TSG serves as lead architect for the InfiniTEXT and myinfinitec.org portal projects; not only implementing and building the Alfresco repository but also designing and developing the interfaces to Liferay and Adobe Connect as well as designing custom user interfaces. TSG also deployed innovative conversion tools that allowed UCPGC / Infinitec to automate the loading of the learning objects and associated metadata to Alfresco. TSG developers work with UCPGC between paid consulting projects and have donated almost 2000 consulting hours in the past two years.

Conclusion

InfiniTEXT Repository for Digital Textbooks

- Now used by schools in 5 states including California, Georgia, Illinois, Kansas, and Minnesota.

- Serves teachers in more than 500 school districts with over 2000 documents downloaded each month.

- Affords students with print disabilities an improved chance at academic success and enables teachers to spend more time with their students.

- Teachers can search for scanned materials by title, author, card catalog number and various other criteria.

- UCPGC / Infinitec achieved its goals of rapid development and low cost of ownership in a platform that can scale to meet the program's needs.

Myinfinitec.org web portal

- Teachers have improved access to thousands of professional development resources.

- Since its launch in August 2011, the user community has grown steadily as users continue to praise the site's content and innovation.

- UCPGC / Infinitec has a reliable, scalable and cost effective web portal that can support its goal of becoming a national program.

- Easy management of Web documents without requiring staff to be trained in HTML.

Next Steps

Infinitec is exploring methods for linking school districts, adult agencies, universities, and even households to training and education programs and other information resources using the Liferay, Alfresco infrastructure. This engaged learning community would create and refine enriched universal learning resources for use with all levels of consumers in schools and communities.

The organization anticipates continued growth of the InfiniTEXT repository as more districts participate and contribute their locally scanned documents to the repository.

> "Infinitec is an important technology in the classroom initiative that benefits both students and teachers. It is an excellent example of how enterprise content management can be used to enrich the lives of every student in the classroom."
>
> — Todd Barr, CMO Alfresco Software