

Customer Case Study

Ministry of National Education Luxembourg. Center of Technology of Education (CTE) Flexible and Innovative Education Portal in Luxembourg

Solution:
Enterprise Portal

Products:
BEA AquaLogic™ User
Interaction, comprising,
BEA AquaLogic Interaction™
Analytics
BEA AquaLogic Interaction™
Collaboration
BEA AquaLogic Interaction™
Publisher
BEA AquaLogic Interaction™
Studio

Industry:
Education

Country:
Luxembourg

Business challenge

CTE had a vision for technology in education. The aim was to provide a multi-lingual educational working environment for teachers, principals, students, office staff, and parents. The result would be better communication, efficient collaboration, lifelong learning and fostering an understanding of the learning and knowledge society of the future.

Solution

Powered by BEA AquaLogic User Interaction, mySchool! provides access to educational resources such as multimedia e-learning facilities, virtual learning communities, and Web-based administrative applications. Students can submit homework and participate in community discussions via Collaboration tools.

Results

Users can share information and work on projects together—all by virtue of a resilient, adaptive infrastructure based on open standards. They can create database-driven applications (portlets) and actively participate in the construction of mySchool!'s learning environment. Moreover, communities can develop their own Web content and quickly design their own Web sites. Remarkably, mySchool!'s central planning and management team comprises just five people.

Customer brief

The Center of Technology of Education (CTE) is a Department of the National Ministry of Education in Luxembourg. CTE offers technical teacher training, school network operations, network security, educational audio-visual, and multimedia production services.

Business challenge

Five years ago, as part of the 'eLuxembourg' initiative to raise awareness and use of technology in education and business, the Luxembourg Ministry of Education commissioned the creation of a Web-based 'virtual digital learning place'. The project was created to promote e-learning and ensure that children were computer literate by the time they left school.

The Luxembourg Ministry of Education's concept was simple: to provide the country's students with easy access to reliable, validated educational tools and content which would assist them with their studies. And with home PC penetration topping 90 percent in Luxembourg, the Web was considered an ideal medium to bring together these disparate sources of data within a single interface on the desktop. However, the vision—or 'mySchool!' as it became known—did not end there. Ease of use, particularly with respect to navigating and searching for information was absolutely critical if mySchool! was to be a hit with students. In addition, there was a clear vision for collaboration, between students, teachers, parents, employers, and information providers all facilitated through this unified interface. And not just any interface, but one which was suitably intuitive for even the youngest users and most importantly—safe.

"We aim to democratize knowledge," says Daniel Weiler, General Portal Manager at mySchool!, CTE. "We wanted to build a virtual digital work and learning environment for the entire education community. mySchool! needed to provide personalized information—from Web content to traditional applications. It needed to offer single sign-on authorization and be as easy as possible for communities to search and find reliable information from disparate sources. We also wanted to offer collaboration and communication tools, together with intelligent alerting."

One of the first challenges was finding the appropriate applications infrastructure to support mySchool! Weiler and his team drew up some key requests, ranging from it being Web-based, open and secure, to being flexible, scalable, and extensible. "We were looking for a standards-based development and portal framework," says Weiler. "An enterprise portal would help us deliver focused, pertinent information and applications to the entitled end-user through any device. Additional rich features of the enterprise portal include collaboration, content management, integration, workflow / process management and search."

BEA AquaLogic User Interaction Suite proved the ideal basis to develop and roll out mySchool! "The fact that BEA AquaLogic Interaction is open and standards-based means that we aren't restricted in terms of content or the environment in which it is developed," says Weiler. "BEA AquaLogic Interaction Collaboration also enables us to create shared workspaces where students and teachers can meet, communicate, and exchange and create content. The solution would also enable qualified users to

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Daniel Weiler, General Portal Manager, mySchool!, CTE

manage the interface of participants to control what they see on their screens. This functionality would prove particularly useful when soliciting individual responses from a (virtual) class of students, for instance. Weiler continues, “BEA was also able to provide us with the necessary scalability and security we required, without inhibiting full and free access to mySchool!’s resources. While Web content is secured through firewalls in accordance with the international ‘SafeBorders’ content initiative, user access is gained through single sign-on. This allows users to log-in only once to gain access to all resources they need based on their identity and profile.”

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Solution

From a potential universe of 60,000 users, mySchool! currently supports 30,000 users. Individual schools can create their own local Intranet on mySchool!, providing a specific view of and access rights to the portal. mySchool! now also incorporates a security and administrative framework for managing applications in separate domains, each with a separate audience, and a separate set of administrators. This enables local schools to effectively manage their own portal environment. Specifically, the portal provides the following features and services:

- Advanced and federated search
- eLearning tools
- Decentralized administration
- Knowledge directory
- Library management system
- Online library
- Room and asset reservation system
- Personal Webtop
- Personal space
- Smart Web site generator
- Subject rooms
- Thematic rooms
- Working communities.

The Webtop is particularly impressive. Users can change the portal according to their personal needs, including the ability to define their personal view, subscribe/unsubscribe to portlets and communities, define the portlet’s settings and create their own individual portal/community pages (with own branding, layout, content, and applications). The portal is also highly adaptive. It knows the schedule and workflow of users, it saves common things users do and delivers the applications they need. Local communities can also be established within individual schools themselves. Each community can function as a separate site, with its own branding and layout, a community knowledge base, community-level search and a secure

sub-community hierarchy, which allows pupils and teachers to create communities within communities. This enables very targeted and focused working environments. Scores of individual communities can be established within each school, representing classes, subject areas, and interest groups. “All of this is managed through a single, standards-based BEA portal framework,” says Weiler.

Teachers are also better able to manage what content and applications pupils’ access during a class. Each user receives a locally managed, personalized view of mySchool! based on their profile. An enhanced personalization engine determines which applications each user sees, the scheme that controls his/her navigation between applications, the branding of the start page, and even highlights the most relevant topics to be consulted. As a result, different types of users or those from different communities receive distinct experiences of the education Web, based on the applications and content relevant to them.

Results

The delivery of approved teaching materials via the Internet to students and pupils has virtually eliminated traditional delivery costs. The flexibility and ease of use of the portal enabled teachers and pupils to develop new collaborative tools and ways of working on line. A key group to benefit were disabled children and those unable to regularly attend school, who could now access and participate in the conventional curriculum delivered through mySchool!

The visionary system has also dramatically reduced the burden on mySchool!’s central planning and management team: just five people now manage the entire portal. In reality, this team is supported by a series of ‘content maintainers’ based in local schools and charged with keeping the content up-to-date. Using BEA AquaLogic Interaction Publisher, content maintainers without Web programming skills can create, validate, and publish content across their local mySchool! portals in a controlled, consistent way. From an administrative perspective, this localization represents a major breakthrough as all content was previously created, managed and updated centrally for the entire portal.

These new features of mySchool! New Generation are complemented by a range of additional options including:

- Enhanced collaboration enables classes to share information, work on projects together and collaborate more effectively using BEA AquaLogic Interaction Collaboration.
- A ‘Knowledge Trainer’ has been developed. Directed at teachers and students, it provides online evaluation tools.

- With intuitive, Wizard-driven portlet creation, users can create and share database-driven applications (portlets). In this way, they can actively participate in the construction of mySchool!'s learning environment using BEA AquaLogic Interaction Studio.

“We strongly believe that by devolving ownership and responsibility to local schools and—in some cases—individual pupils, mySchool! has been establishing itself as a principal education resource across Luxembourg,” says Weiler. “Students have unprecedented access to indexed and validated reference materials, text books, images, on-line tests, and exercises, in addition to the option of contacting education providers, teachers or other students to collaborate further. It doesn’t stop there. The system was also recently extended to parents. They can now take advantage of secure, live contact with teachers using Voice over IP (VoIP) and email. They can also share documents concerning students’ learning and development. It’s all part of making mySchool! more valuable, appealing and important in the development of student learning.

“It’s the Web page you would always turn to first,” says Weiler. “We’ve federated all the content and applications a user needs to do his work, teaching, research, approved recreation, and their outside interests. Users can access all their projects and administrative systems, and—depending on their access rights—simultaneously access, delete, and update files.” He concludes, “The scalability of BEA AquaLogic User Interaction means that local communities can quickly be established and managed without placing any additional burden on the central administrative function. mySchool! is as rigorous and demanding as any traditional corporate application and is a great example of a portal that is enhancing learning in the community.”

About BEA

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