


## FILNET CASE STUDY

**Digital Media Portal for Schools and School Districts**

Market research, Software Development of Internet based Education Tool

CLIENT	 Discovery Education
PROJECT	Market research, software development of Internet based education tool
WEBSITE	<a href="http://www.discoveryeducation.com/">http://www.discoveryeducation.com/</a>
TECHNOLOGY	Liferay 3.6.1, Liferay 4.0, Java/JavaScript, MySQL, XML, Eclipse and Dreamweaver
DURATION	12.2005 – 05.2006

**Overview**

Portals have become an essential business tool for government, commercial and education organizations. Portals offer single points of entry or gateways to applications and services of organizations across the Internet or intranets. Portlets are components of portals that contain published data or content such as weather updates, customized news reports, discussion forums and interactive calendars. A well known company that creates online and digital media in various subject areas for more thousands of schools across the United States called on Filnet's portal development expertise to satisfy a number of requirements prior to a planned product launch.

**Challenge**

An immediate requirement for the project was market research services and analysis of technologies that could be used to help build the client's new portal offering. As a matter of fact, the client wanted a creation of a requirements document along with information architecture analysis. The company also needed competitive knowledge concerning the best technology solutions, features and price that would make its new portal based offering a compelling resource for educators at thousands of schools.

As the project matured, the client would also require copy writing, web design/user interface (UI) and software development services. Essential to the project's success would be the seamless integration of company's existing digital media features as such its on-demand streaming video services, single sign on, aggregated search and digital media content upload functionalities.

## Solution

Filnet initially embarked on a discovery and preliminary requirements gathering process. As a market leader in interactive design and market research—especially in the IT solutions arena, Filnet was highly qualified to conduct market research and analysis for the client. Filnet was well aware that findings of the research would determine the direction for the client's new digital media offering in terms of marketing as well as technical development.

Filnet's project team included developers and other IT specialists who are experts in commercial and open sources technologies. Filnet's team used the Internet and other resources to review the marketplace for the best technologies, features (as requested by the client) and cost of deployment. Specifically, Filnet focused on technology that makes it easy to share content and information securely. Filnet also focused on determining market trends and conditions in terms of portal usability and relevance. Following the initial market research, Filnet presented IT analysis and market findings to the client along with recommendations and strategic next steps. Filnet also developed a static presentation of the proposed, new product. The demo was complete with an attractive "look and feel" for the future educational and media sharing portal offering. The client's sales team would use the presentation to sell the forthcoming solution to existing clients and potential partners.

Within a month of the initial market research findings and static HTML demo representation creation, the client brought Filnet into the development stage of the project. On the client side, the development team consisted of a project manager and full-time technology specialists. Filnet's web and portal development team of experts were comprised of three programmers and two graphic user interfaces (GUI) developers. Filnet, however, would perform the lion's share of the portal development.

Liferay was one of many portal solutions submitted to the client as a viable tool to meet its requirements for a portal tool that would integrate the client's existing online digital media services with educational services of strategic partners. The client approved Liferay after reviewing the legal terms for that product. Liferay was also used since the client wanted to build a solution using an existing technical framework.

Filnet highly recommended Liferay to the client because it is a reliable, cost-effective solution. In fact, organizations like Goodwill Industries International and Wachovia use Liferay's robust functionality; database and platform compatibility; and scalability to connect to their respective constituents.

Filnet delivered a modified Liferay with additional portlets. As mentioned earlier, portlets are portal components that contain published data or content. Specifically, the client requested a number of standard portlets such as Calendar, Search, Login, News and "Breadcrumbs." Filnet also delivered customized components such as document library, content manager and streaming video tool. Since each portlet would need its own data source, MySQL was used as a reliable, cost effective way to hold the application configuration information, user profile and access. Filnet was also responsible for the deployment and configuration of the portal solution prototype onto the client servers.

Filnet programmers used Eclipse and Dreamweaver as IDE's (integrated development environments) to assist in the customization of the Liferay software to client specifications—especially for the portal theme or "look and feel." Like Liferay, Eclipse is an open source technology that offers an extensible development platform and application framework for building software. By using this technology, Filnet developers had

the flexibility needed in this project that was constantly influx. The plug-in based framework of Eclipse makes it easy to develop and integrate software tools.

Dreamweaver, on the other hand, was used mainly for the creation of the portal theme. The extensive architectures of Eclipse and Dreamweaver helped to accelerate the development process. A shorter development stage helped to save the client's time and money.

## Results

Portals are useful because they can be personalized and provide a simply interface that even the most computer technology-challenged person can navigate with ease. Drawing from the findings of Filnet's market research and analysis of various open source and commercial off-the-shelf (COTS) offerings, the IT firm developed the prototype for a dynamic portal that integrates with the client's digital media management tool and other resource tools from the customer's strategic partners. The Filnet developed prototype allows single sign-on, content searching, content sharing and content delivery capabilities. Special code written by Filnet programmers will also allow functionality well beyond the Liferay portal solution core offerings.

Filnet provided web developers, IT research analysts and other IT specialists to support software development initiatives for the client's digital video and multimedia learning resources. Filnet also built an interactive marketing demo to assist the client's sales force win new clients and develop new strategic alliances. Perhaps most important, Filnet's recommendation for an open source solution as the "backbone" for the client's new digital offering will save the client hundreds of thousands of dollars in development and maintenance fees.