OLE advances forward through the Kuali Foundation

The Open Library Environment (OLE) is an initiative funded by the Andrew W. Mellon foundation with the goal of creating a new platform to provide automation support for research libraries. OLE has completed its initial planning project and is preparing to begin its software development phase. The submission of the final report of the OLE Project to the Mellon Foundation marks the completion of the one-year planning process. The acceptance of the project into the Kuali Foundation and the announcement of a consortium of Founding Partners represent significant milestones in the progress of this new breed in technical infrastructure for research libraries.

Note that all documents produced during the initial OLE Project, including the final report, continue to be available at http://oleproject.org.

OLE Concepts

OLE’s key mission involves reconceptualizing automation for research libraries. Seen through the lens of OLE, the automation systems that find use in libraries today are hard-pressed to cast off their print-oriented heritage. The purpose of the OLE design is to manage all resources, regardless of their format. The OLE design takes the realities of libraries deeply involved with electronic content as a starting point. It assumes that librarians have the need for greater flexibility to adapt to future changes in whatever form that library collections may take.

Most research libraries do not operate in isolation, but serve larger organizations that have assembled an interconnected technical infrastructure supporting their business and operations. Enterprise computing involves participation in computing facilities that serve the entire organization rather than having individual departments or units provide their own isolated business systems. The incumbent model of the ILS falls into the more isolated departmental computing model; OLE embraces the enterprise approach, providing its services in ways that deeply interconnect with the enterprise infrastructure and even handing off major aspects of functionality to existing enterprise applications. As an application designed to fit into the enterprise, OLE will make use of existing technical infrastructure like authentication services and will hand off functionality to other applications when appropriate. Many of the procurement tasks traditionally handled by the ILS acquisitions module, for example, will be delegated to the institutional enterprise resource planning or accounting systems.

OLE embraces the service-oriented architecture (SOA), a software methodology based on creating services that represent very small tasks, which can then be assembled to handle larger and more complex workflows. A well-designed SOA framework achieves high levels of efficiency by using the same lower-level services across many different workflows. SOA stands as the current preferred approach for large-scale software development projects.

Continued on page 2
The OLE project made extensive use of business process modeling to create its design documents. A key assumption of the project involved treating resources entirely independently from their format. All processes were designed to accommodate any of the variants of print and electronic resources. According to the OLE perspective, an agnostic approach to formats will lend the system more flexibility than the current automation products designed primarily around print (ILS) or electronic (ERM) materials. During its initial phase, OLE conducted workshops in many geographic regions that invited library personnel from all functional areas to help design workflows that might be more optimally efficient than those imposed by their current automation tools.

OLE focuses on automating the internal business processes of the library, not on the end-user experience. The intention of the project managers is for the software produced to function well with any third-party discovery interfaces. OLE has synergies with the eXtensible Catalog project under development at the University of Rochester River Campus Libraries, which are also funded by the Mellon Foundation. However, no exclusive arrangement has been proposed; it will be designed to accommodate any other open source or commercial discovery tools.

Governance though Kuali

One of the key recommendations of the planning process involved addressing governance issues early in the build project. This recommendation has been realized by OLE’s decision to join forces with the Kuali Foundation. Going forward, the project will take the name Kuali OLE. This announcement became public during Kuali Days VIII, the annual meeting of institutions involved in the various Kuali software projects held November 17-18 in San Antonio. OLE Participants Michael Winkler (University of Pennsylvania), Tim McGeary (Lehigh University), and Robert H. McDonald (Indiana University) gave a presentation that introduced Kuali OLE to the broader Kuali community.

While the Kuali Foundation and its projects may be well known in the broader higher education community, librarians tend to be less aware of the nuances of the organization and its approach. This marks the first time that Kuali has extended its reach directly into the library community.

The Kuali Foundation shepherds a handful of large-scale software projects for higher education. It is an independent non-profit organization supported primarily through the membership dues paid by institutional members and commercial partners. It provides legal, administrative, conceptual, and project management support for its projects, all of which follow a community source model of development. It provides a repository for intellectual property associated with its projects. The Kuali Foundation aims to manage governance in a way that ensures that each institution that contributes to the project receives an equitable role in decision making.

The Kuali Foundation carefully selects new projects. Once these projects and the foundation are allied, the projects must operate according to Kuali’s principles.

The projects managed by the Kuali Foundation involve major institutional commitment and buy-in. They do not depend on voluntary efforts, but rather they are supported by major contributions from participating institutions and grant-making organizations like the Mellon Foundation.

The flagship project of the Kuali Foundation, the Kuali Financial System (KFS), exemplifies these principles. KFS traces its roots to the software created initially at Indiana University, which has been refined, enhanced and deployed through the Kuali Foundation’s community source model. Other founding partners include Cornell University, Michigan State University, University of Arizona, several University of California campuses including those at Davis, Irvine, and Santa Barbara, University of Hawaii, University of Maryland, University of Southern California, Colorado State University, and San Joaquin Delta Community College. Not unlike OLE, the Mellon Foundation funded a planning phase, followed by a $2.5 million grant. KFS, launched in 2006, saw its third major release in March 2009.

Another relevant project involves Kuali Rice, an enterprise middleware component. Enterprise software built around SOA can take advantage of a middleware layer to provide a shared set of services to support higher-level applications. The use of Kuali Rice can save subsequent projects significant time and resources.

The Andrew W. Mellon Foundation has been a strong ally of the Kuali Foundation projects. The Mellon Foundation does not fund the complete cost of the Kuali projects, but rather has contributed funds to accelerate the development of some Kuali Projects and to mitigate the costs for the participating institutions. At most, the Mellon Foundation will provide funding to match that contributed by committed institutional participants.

Kuali embraces the involvement of commercial services. Organizations can also work with Kuali Commercial Affiliates to gain assistance with the implementation and operation of the software. The Kuali Foundation maintains a list of the firms that belong to its Kuali Partners Program and pay membership fees to support the foundation’s work.
fees. While these affiliates may make no claims to the ownership of the software, they offer fee-based services and may even provide packaged versions of the Kuali software that offer features or convenience factors not found in the basic Kuali software. These arrangements are consistent with the legal requirements of the open source software licenses involved.

**Community Source Cost Expectations**

The Kuali Foundation offers its software as open source. It can be downloaded and used without the payment of license fees. The implementation of enterprise software of the order of the Kuali projects, however, does involve significant costs in many other categories: scalable redundant hardware, project management, data conversion, personnel training, business analysis, auditing and compliance review, to mention just a few.

Institutions involved as partners in one of Kuali’s projects are expected to join and pay membership fees, which, adjusted to the size of the institution, are set at a maximum of $25,000 per year. Institutions do not have to be a member of the Kuali Foundation to use the software, but since this kind of software requires major investments, joining the foundation is generally regarded as a way to ensure that the institution has a voice in the foundation and individual software roadmaps.

Large-scale enterprise-oriented software projects involve major investments, even when they follow the community source model. This kind of software will never be free of cost, but community source models like those managed by the Kuali Foundation give the institutions that commit and make investments the ability to establish the priorities and strategic directions of the project. Successful community source projects can also drastically lower costs as seen by the recent implementation of Kuali Financial and Coeus, (a research support system) at Colorado State University. This implementation project, as reported in The Chronicle of Higher Education, described an expedited implementation schedule on a budget roughly one tenth of what would be expected if the project was based on proprietary software.

You can read that article here:
http://chronicle.com/article/Business-Software-Built -by/49147/

The community source movement, as exemplified by the Kuali projects, involves some high-profile institutions but represents a small minority of enterprise software deployments in higher education. The Sakai and Moodle courseware projects erode the dominance of companies that offer proprietary products, such as Blackboard, to only a limited extent. Although commercial products dominate the current enterprise software market for higher education, as these community source projects mature, they will likely gain a broader appeal.

**Enter Kuali OLE**

In the Kuali Foundation, OLE finds a solution for its needs for governance as well as an organization that shares its focus on research libraries and its vision for SOA and enterprise computing.

The build phase for Kuali OLE will involve a consortium of institutions that have made significant commitments through financial and in-kind contributions. The roster of Kuali OLE build partners differs somewhat from the group of libraries involved in the preliminary phase. Institutions involved in the planning phase not continuing on the build project include Rutgers University, Vanderbilt University, the Orbis Cascade Alliance, the University of Kansas, the National Library of Australia, and Library and Archives Canada.

The Kuali OLE founding partners, along with their current automation systems, include:
- Indiana University (Unicorn)
- A consortium of libraries in the University of Florida system, including Florida International University, Florida State University, New College of Florida, University of Central Florida, University of Miami, University of South Florida. The Florida Center for Library Automation, the organization that manages automation on behalf of the University of Florida libraries (Aleph). Rollins College (Voyager), will also be represented in this consortium, though not part of the UF Aleph implementation managed by FCLA.
- Lehigh University (Unicorn)
- Research Triangle Libraries Network, including Duke University (Aleph) and North Carolina State University (Unicorn)
- University of Chicago (Horizon)
- University of Maryland (Aleph)
- University of Michigan (Aleph)
- University of Pennsylvania (Voyager)

Brad Wheeler, Chief Information Officer for Indiana University also serves as the Board Chairman of the Kuali Foundation. Indiana University will serve as the lead institution of OLE Kuali. Carolyn Walters, currently the interim Ruth Lilly Dean of the University Libraries at Indiana University, will serve along with Wheeler as the co-principal investigator for IU. Robert H. McDonald, associate Dean for Library Technologies, is an advisor to the board and director for Kuali OLE. Please see the chart on this page for a more extensive list of participants.

The grant proposal submitted to the Mellon Foundation requested $2.4 million in support, matched by a combined $2.5 million contributed by the founding partner institutions.

The founding partner institutions enter with enormous levels of commitment to the project. Not only will they make...
significant financial investments, but they are committing to implementation of the software upon its successful completion. The Kuali OLE founding partners aim to create a new automation framework to replace the legacy systems currently in use. The cost to these institutions may roughly equal that of acquiring a comparable proprietary product, if there were one, from a commercial vendor. Kuali OLE provides an opportunity to share ownership and strategic control of this critical infrastructure component beyond what is possible when procuring a commercially licensed product. Even larger benefits may be conveyed to the broader library community in the long term. Once the project reaches completion, the software becomes available for other institutions to implement, which presents opportunities for savings to the broader research library community. The benefits not only involve potential cost savings, but also the creation of software that will follow a much different vision than the legacy integrated library systems currently available.

**Avoiding Governance Pitfalls**

This strategy of dealing with governance issues early on contrasts with other open source library automation projects. The open source Koha ILS, for example, has gone forward with only informal software governance mechanisms. As we noted in a previous issue of SLN, Koha’s codebase has forked into distinct branches and the ownership of its intellectual property remains under the control of one of the commercial support firms. Almost a decade after the initial development of Koha, efforts are now underway to place the project under the jurisdiction of some type of non-profit organization. In October and November 2009, key participants in the Koha project have engaged in online meetings and have conducted polls among themselves to determine short-term and permanent organizational options.

Good governance does not come cheap. But when dealing with an organization’s critical software infrastructure, attention to these issues can mitigate some of the risks associated with a complex development and implementation project. While the issues currently plaguing the Koha project will likely come to positive resolution over time, a strong governance structure like the one provided under the Kuali Foundation should provide a more stable environment for OLE.

**Competitive context**

While an important milestone, the Kuali OLE project remains at a very early stage. Optimistic timetables set the availability of early versions of the software in the range of 18 to 24 months from the commencement of the build phase in January 2010.

OLE Kuali will find vigorous competition from the commercial ILS providers. Ex Libris, for example, has begun development of URM (Universal Resource Management), a next generation library automation framework that shares many of the conceptual ideals of OLE. As one would expect from projects in direct competition, we already see a critical dialog expressing the relative merits of each approach. Carl Grant, President of Ex Libris North America, for example, has written a critique of OLE questioning whether the project justifies the risks and costs involved on his blog. (http://commentary.exlibrisgroup.com/2009/08/ole-unanswered-questions.html) Brad Wheeler, Indiana University CIO, presented a response reflecting the community source perspective.

Kuali OLE and Ex Libris URM represent a fairly radical departure from the traditional ILS. For many and possibly even most libraries, the conventional ILS will continue to serve as the major automation support tool for years to come. The companies that offer traditional ILS products should remain competitive in the future provided that they continue to evolve their products to meet basic library needs and deliver quality service and support.

The other option to mention in this context involves OCLC’s proposed strategy to deliver core automation functionality through the WorldCat Local
platform. The development of these services is well underway, and may be available for general use in approximately the same timeframe as Kuali OLE and Ex Libris URM.

With products representing such divergent approaches to automating libraries underway, the next two years may well be a critical point in the history of library automation. Given these developments, libraries have an opportunity now to become acquainted with each option and to begin considerations regarding which approach matches their basic automation requirements, strategic vision, tolerance for risk, and budget.

—Marshall Breeding

Related Resources:

iCyte, You Cyte, We All Cyte

Heracleitus would have been tickled by the Web. He was the ancient Greek philosopher who observed that it is impossible to jump into the same river twice, because the river is constantly changing and shifting.

The Web is more like a river than a tangled “web”. If you are trying to do research on the web, you want to cite webpages and return to them in the future without fear of receiving the dreaded “error 404: website not found” message. Trying to reliably cite something found on the Web is like trying to jump into the same river twice.

The cardinal rule of information technology, if not of all life, is to find a need and fill it. A couple of years ago Graham Smith and Stephen Foley saw the need to reliably cite information found on the Web for both serious research (e.g., legal research), and personal interests (e.g., favorite restaurants). Early in 2009, version 1.0 of iCyte was released. The current version is iCyte 2.0.

iCyte enables users to save all or parts of a web page of interest, tag it, annotate it, share it with friends, colleagues, or the wider world, and reliably return to it later. After installing the iCyte plug-in, when you find a webpage of interest, you click on the iCyte flag icon in your browser’s toolbar. The iCyte plug-in will ask you to which project you want to add your “cyte”. You can have multiple projects going at once. Some projects can be completely private—only you see the saved webpages, the tags, and the annotations. Other projects can be shared with other colleagues or members of a project team. You can invite people to join in constructing the cytes for a project of mutual interest. You can choose to share some of your projects with the general public.

iCyte currently works with Firefox (versions 3.0 and 3.5) and Internet Explorer (versions 7 and 8). The basic version of iCyte is free. Users need to download and install some software and register for a free account, which involves providing your name and a valid email address. Users also need to agree to iCyte’s privacy policy and their end user license agreement.

iCyte has some really nice features and touches. For example, when you are saving a webpage, you can highlight the text and/or images that interest you most. When you return to that specific cytation, the highlighting will again be visible. It is also possible to keep up with new cytes added to a public project by subscribing to the RSS feed for that project. You can also share cytes and projects with popular social media services, such as Twitter and Facebook, so that friends, colleagues, and family members can see what you are cyting without even having to install the iCyte software. It also is easy to embed cytes and projects into blogs, wikis, and websites.

As is always the case with new free software, one wonders how the makers of the software intend to make any money. Evidently advertising revenue is not part of iCyte’s business plan. They are working on an advanced enterprise version of iCyte that will be sold or leased to enterprises.

iCyte does have some limitations. It’s currently available on only two browsers, but the developers are looking to expand the options to include Google Chrome, Safari, and others. While it is possible to access, modify, and add to your iCyte projects when you are away from your main computer, the iCyte software plug-in must be loaded on the computer you are using to log in to your iCyte account.

iCyte allows you to create your own personal Wayback Machine, à la the Internet Archive—a mini archive of webpages that interest you, are related to some long-term research project or a vocational interest, or sites you simply want to refer back to or share and discuss with colleagues or the general public. If you’re tired of wrestling with unwieldy bookmarking functionality in browser software and copying and pasting web stuff you want to save locally, try iCyte. Library professionals can use iCyte for their own professional research, for team-based projects, and to create public iCyte projects that may benefit anyone worldwide. Library users can use iCyte for any school-based, work-based, or web-based research project.

—Tom Peters

More Info. @:
http://www.icyte.com
We all know that Necessity is the mother of Invention. But who is the father? Budget cuts may get slapped with a paternity suit soon, because they are causing many librarians to become very inventive.

Take the case of conference attendance. Because many libraries have reduced or mothballed their travel budget lines, or restricted travel only to in-state meetings, many librarians are actively exploring conferences that are held online (usually via webconferencing software) and “in-world” in 3-dimensional virtual worlds, such as Second Life.

As these “not-in-person” conferences gain in attendance, they are starting to develop their own personalities and value equations. One interesting trend is the development and use of various channels of communication. We all understand how communication channels work, even if we’ve never taken a communications course. If, for example, your attempt to reach someone via email fails, you can switch channels and try reaching them via phone.

Conference-related channels of communication have been popping up all over the world. The librarian in me has an urge to try to classify all these conference channels. Here’s a first attempt:

**Pre Channels:** These are channels of communication that are used before the actual date(s) of the online or in-world conference. Channels like wikis or Twitter are being used to enable conference attendees to introduce themselves and explain their interests. These pre channels also are being used to let registrants vote for potential conference sessions on topics of interest, thus making the content of the conference more pertinent to the actual interests of the registrants.

**Main Channels:** Obviously, this is the main method used by the conference organizers, presenters, and participants to convey the messages and discussions associated with a conference. Audio seems to be the main channel of choice. We listen to the presentations and conversations that are part of conferences held in person, via webconferencing, and in virtual worlds such as Second Life. Visual information—slide sets, visages, webpages, etc.—often serves as part of the main channel, thus making most conference main channels a multi-media experience.

**Side Channels:** This is a channel used primarily by conference attendees to communicate amongst themselves as a group as they listen to the main channel. In many webconferencing systems the side channel is a text chat scroll that appears somewhere in the webconferencing interface. Participants use the side channel to make questions and comments as they think of them, rather than waiting for the official Q&A period of the presentation. They also may use the side channel to assist the speaker by providing URLs, facts, and other information to support what the speaker is saying. Because webconferencing and virtual world conferences rely on networked computer technologies, tech problems and questions inevitably crop up. The side channel can be a good way to provide tech support as the conference unfolds. Sometimes the side channel conversation will veer off into some topic that has little or nothing to do with the main channel communication. If fact, sometimes the side channel communication become more interesting and informative than the main channel communication!

**Aside Channels:** While the side channel typically is a communication stream to which all participants can contribute and read, it often is helpful to have an aside channel that enables one-on-one communication between two members of a larger group of participants. The analogies from in-person conferences include hallway conversations between programs, the things muttered from one colleague to another as they sit together during a presentation, and even the after-hours conversations held in restaurants and bars. Oddly, some organizers of web-based and virtual world conferences try to disable or thwart the aside channels. It seems to me that most conference participants gain value from these aside conversations. Regardless of venue—in-person, online, or in-world—any conference organizer should try to make the aside channels easy to find and use.

**Back Channels:** Twitter hashtags currently are the most popular way to have a back channel for communication during a conference. Conference attendees and others use the hashtag for the conference to communicate about the conference while it unfolds. Bloggers often use rapid blog posts for much the same purpose. Back channels represent an interesting marketing and revenue conundrum for the conference organizers. Following the tweetroll of a conference hashtag is one way to hear the main messages coming from various conference sessions without actually registering for and attending the conference. Although some conference organizers may perceive conference back channels as lost revenue and unauthorized content leakage, these back channels can increase the impact and “buzz” about an online conference.

**After Channels:** After channels are communication channels
used after the fact to gain more value from a conference. Because many online and in-world conferences are recorded and archived, people can use these archived recordings and after channels to listen to (and view) a conference presentation and discuss it afresh. The Yale University librarians, for example, have been having a series of brown bag luncheons where they listen to recordings of the first Handheld Librarian conference held in July 2009, then discuss the ideas and information presented in person and via Twitter with far-flung colleagues.

The wonderful thing about the development and diffusion of all these conference-related channels of communication is that they allow everyone to channel surf. Based on the channels to which you pay attention, your experience of the conference differs and evolves.

—Tom Peters

ILEAD U promises to be an essential example and proving ground for how librarians can help communities as we move farther into the 21st century.

ILEAD U

The ILEAD U initiative (Illinois Libraries Explore, Apply, and Discover) being spearheaded by the Illinois State Library (ISL), is one to watch in 2010. The ISL has received a $419,000 IMLS Laura Bush 21st Century Librarian grant to undertake this three-year project. Gwen Harrison, Connie Frankenhofeld, and Lynda Maddox from the ISL and R. David Lankes from Syracuse University are the core leadership team for this new initiative.

The goal of ILEAD U is to help small teams of librarians and community leaders to develop and deliver projects to their communities using Web 2.0 tools. These 2.0 projects will grow out of needs assessments of the specific communities to be served. Stated more formally, the goal of ILEAD U is to develop, test, and deploy a sustainable, replicable “technology immersion program that will expand Illinois librarians’ leadership abilities to use participatory technology to effectively engage their libraries’ constituents.” Participatory tech tools continue to emerge and evolve, but the ILEAD U projects may involve tools like blogs, podcasts, digital video and photo sharing tools, gaming, social bookmarking, tagging, social networking, virtual reference services, webconferencing, virtual worlds, wikis, and more.

The key concepts here are community, needs assessment, leadership, and the immersive learning and use of participatory technologies. All libraries serve communities of users. When it comes to participatory networked computer technologies, members of these communities look to their libraries for leadership in how to exploit (in the best sense) these participatory technologies to enrich the lives of all members of these communities. It will be interesting to see how the ILEAD U teams define and identify communities and community needs. In general, the way libraries define and serve communities may undergo some major changes in the 21st century, advancing beyond the geographically-defined communities we all know and love.

During this three-year project, two cohorts of teams will emerge. One cohort of teams will be active through 2010, and the other will be active primarily in 2011. In 2012, the third year of the grant-funded project, assessment of the outputs and outcomes, replicable options, and reporting out will take center stage. Each project team will identify one need within their chosen community that would be served well by one library-led community service that uses a participatory 2.0 technology to meet that need and advance the public good in that community.

Groups of mentors, instructors, and members of the ILEAD U steering committee will meet frequently—in person and online—with the project teams to advance their projects. [Full disclosure: I will be serving as one of the ILEAD U instructors.] The mentors, instructors, and members of the steering committee will collaborate as well to develop and implement a comprehensive curriculum involving hands-on learning opportunities to help members of the project teams to develop knowledge, expertise, and confidence needed to help integrate these collaborative technologies into their communities.

Collaboration has been woven into the fabric of ILEAD U. Each project team must consist of librarians from more than one library, and each project team must have at least one member from a stakeholder organization in the community who is not a librarian. ILEAD U is not just librarians talking to and working with other librarians. Assessing the needs of specific communities, then working with other community leaders to design, test, and deploy a service based on collaborative technologies is integral to ILEAD U.

ILEAD U promises to be an essential example and proving ground for how librarians can help communities as we move farther into the 21st century. The emphases on inter-institutional collaboration involving non-library organizations, focusing on single projects that address identified community needs, and on the immersive use of participatory networked computer technologies all bode well for libraries and the communities they serve.

—Tom Peters

More Info. @:
http://il.webjunction.org/il-ileadu