

Web Services and Digital Libraries

What are Web Services?

Although there was a lot of excitement about web services in 2002, the Research Pane in Microsoft Office 2003 was the first commercial appearance targeted to end users. Prior to this, Google, Amazon and eBay started building momentum by giving developers Application Programming Interfaces (APIs). These APIs have been the basis of novel applications using web services to search their content repositories. As an example, Journals@Ovid, a full-text database with over 1000 medical full-text journals, was made searchable in Office 2003 by simply highlighting and clicking a term to launch a search. This use bodes well for the future of web services and demonstrates how end users are already able to interact with traditional research applications from within their writing environments.

Open Archives Initiative

As well, the Open Archives Initiative Protocol for Metadata Harvesting (OAI) provides a standard framework for harvesting metadata, which has already widened the scope of available content from dissertations to preprints. Google has recently initiated a project with DSpace to harvest 20 university repositories, which opens the door for web services to search across fee and free content sets in the future. Web services can also be used as an intermediate layer to format data that is retrieved from content repositories into interchange formats like OAI. Once content is retrieved using XML standards like OAI, it is becoming easier to create a common user interface for searching.

Where to go from here?

As libraries and organizations upgrade their users to Office 2003, more attention will be paid to the integration points made possible by Web services. Instead of having to go to gateways to search an individual resource, it is increasingly possible to perform integrated searches from the application where the user is working. In the future, education gateways will allow the user to search subscribed content through custom interfaces. Web services are the glue that will make these advanced applications possible and continue to advance the art of information retrieval.

Biography

Jay Datema is a software product manager at Ovid Technologies in New York City. Previously, he was a reference librarian at Albert R. Mann Library, Cornell University, where he worked with the Human-Computer Interaction (HCI) Laboratory to design mobile applications for accessing citation libraries at the point of research. He is involved in bringing medical reference books into a searchable database where they can be searched along with databases and journals using natural language processing (NLP) as well as several other medical informatics projects with his colleagues at Ovid. In cooperation with the International Project Management Association he presented his work on "Managing Virtual Teams with Weblogs" at NORDNET 2002 in Reykjavik, Iceland.