Sandra Payette

http://www.cs.cornell.edu/payette/
Research Associate, Department of Computer Science
Cornell University

Fedora: An Architecture for Complex Objects and their Relationships

First Floor Auditorium, ECS Building

4:20pm, Thursday Apr 7 2005

Abstract:

The Fedora Project has been devoted to the goal of providing open-source digital repository software that can serve as the foundation for many types of information management systems including institutional repositories, digital libraries, multimedia authoring systems, archival repositories, and educational software systems. This seminar will focus on the use of Fedora as a flexible, general-purpose repository service for managing and accessing digital objects. Other topics of discussion will include the use of Fedora in creating an information network overlay upon distributed sources, and Fedora's role in facilitating digital preservation of complex objects.

At the core of Fedora is a powerful digital object model that supports multiple representations or views of each digital object. These representations may originate from data stored locally, from data referenced at other networked locations, or from data produced dynamically by local or remote web services. Relationships among digital objects can be stored and queried, providing the foundation for expressing rich information networks. The Fedora repository service supports a variety of management functions including content versioning, ingest and export in standard XML formats, and fine-grained access control. All functionality of Fedora is exposed as a set of web services with well-documented REST and SOAP interfaces.

Bio:

Sandra Payette is a Researcher in the Computing and Information Science (CIS) program at Cornell University. Her research areas include information network overlays for scholarly communication, distributed architectures for digital libraries, information modeling and metadata, digital preservation, and policy enforcement for digital content.   Sandra is responsible, with Carl Lagoze, for the design and development of a digital repository architecture known as Fedora funded by DARPA and NSF. She is co-leader of the open-source Fedora Project (http://www.fedora/info), which is a collaborative endeavor with the University of Virginia to produce open-source software based on the original Fedora model. Funded by the Andrew W. Mellon Foundation, this software is being adopted by a variety of educational, library, research, and commercial organizations. With funding from the NSF SEIII program, she is currently collaborating with colleagues from Cornell and LANL on the Pathways project. Pathways will demonstrate a graph-based information network overlay, including workflow and service integration that can serve as a model for next-generation scholarly communication systems.