Expanding the Institutional Repository Mission: Innovating with Linked Data for NASA Digital Curation

Presentation

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Abstract

The NASA Goddard Space Flight Center Institutional Repository (GSFCIR) manages, preserves, tracks, and provides access to the Center's digital collections and research output. As GSFCIR moves to an entirely RDF-based platform, the Goddard Library is taking this opportunity to leverage linked data's capabilities to enhance digital curation efforts, particularly in the area of adding value to digital collections.

Objects in GSFCIR's existing collections have little inter-relation through back-end metadata or front-end interfaces. As representatives of the research and knowledge output of Goddard, these collections and digital objects do have a common thread among them: NASA missions. Current repository cross-collection searching allows for discovery of some of these connections; however, it is often frustrated by variant names and it does not support a variety of common search behaviors.

Historically, NASA mission information has not been maintained in any single, accessible authority. To both achieve its goal of creating better connections in GSFCIR and to provide a valuable resource to present and future NASA communities, the Goddard Library is producing a linked data thesaurus of NASA mission names, including equivalence, hierarchical, and associative relationships.

This presentation will focus on how the Library established the need for a NASA-focused linked data missions thesaurus, the careful process of domain analysis and vocabulary development, and its role in aiding future digital curation efforts as GSFCIR grows with new collections.

