

## **T.2.. Interoperability for Discovery and Navigation: ResourceSync and Signposting**

*Wednesday, 21 June 2017 09:00 (3 hours)*

This tutorial will detail two approaches for making repository materials, and metadata pertaining to them, machine discoverable: ResourceSync and Signposting. Both are closely aligned with the REST and HATEOAS architectural principles of the Web.

ResourceSync supports batch discovery of repository content and is based on the Sitemap specification, which is widely used to make content discoverable by web search engines. ResourceSync extends Sitemaps to additionally provide functionality to support actual synchronization of content across systems and to discover related resources, such as temporal or mirrored versions. It does so by providing the ability to convey metadata and links pertaining to content that is made discoverable. ResourceSync also provides modular approaches to allow systems to remain in sync with evolving repository content, ranging from publishing an inventory of repository content every now and then, over recurrently publishing changes to repository content, to continuously pushing out notifications about changes as they occur. ResourceSync is an ANSI/NISO standard (Z39.99), initially released in 2014 and recently updated. It is generally considered to be the webby successor of OAI-PMH and both specifications share several editors. After a slow start that can largely be ascribed to the omnipresence of the metadata-oriented OAI-PMH, ResourceSync is now being picked up by several significant projects. The tutorial will provide an overview of the ResourceSync capabilities. ResourceSync is at <http://openarchives.org/rs/toc>

Signposting supports on-the-spot discovery of repository content, that is, as a machine interacts with specific repository content, typed links are provided to allow it to discover and access related resources. For example, on a landing page, links will be provided that convey which resources are part of the object described by the landing page, what the object's persistent identifier is, and where descriptive metadata in which format can be found. Signposting conveys these links in HTTP response headers, which are available irrespective of the media type of repository content and can even be provided for restricted content. The link types are selected from the IANA link type registry. Signposting is not a formal standardization effort but just a very simple, common sense approach to make it a bit easier for machines to navigate the scholarly web and hence to allow for the emergence of applications that can better serve users. Signposting is at <http://signposting.org>

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**Session Classification:** Tutorials