Libraries and the Semantic Web

Synthesis Lectures on Emerging Trends in Librarianship

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ABSTRACT

This book covers the concept of the Semantic Web—what it is, the components that comprise it, including Linked Data, and the various ways that libraries are engaged in contributing to its development in making library resources and services ever more accessible to end-users.

KEYWORDS

bibliographic data, libraries, linked data, ontologies, RDF, semantic web, vocabularies

Dedications

Dedicated to Matthew Bloomfield-DeWeese.

Keith P. DeWeese

Dedicated to my family.

Dan Segal

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Acknowledgments

Keith P. DeWeese

Thanks to my co-author, Dan, for his contributions to this book. I also wish to thank Hema Ramachandran, Kathleen Cottay, Ian Davis, and Joel Summerlin for their support and contributions to this book.

Dan Segal

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Preface

This Synthesis Lecture is intended to provide an overview of the Semantic Web as it relates to libraries. It is for the librarian seeking to become familiar with and discuss the concept of the Semantic Web. It is also for the librarian engaged in applying procedures and processes, aligned to the concept of the Semantic Web and its standards, to their work whether in an effort to meet the needs of their end users, reduce administrative costs, or both.

Use-cases and examples primarily focus on bibliographic data for print resources and cover:

- standards and components that comprise the Semantic Web;
- an overview of Semantic Web projects that are underway at various libraries around the world;
- resources and tools, i.e., the technology of the Semantic Web; and
- Linked Data, a method of publishing structured data using Semantic Web practices so that the data can be interlinked and therefore become more useful (Wikipedia, 2014).

But why care about the Semantic Web and its life in libraries? To that, one might answer that, with the phenomenal and unceasing growth of content and data on the Web, all organizations must, in some capacity, process data by both human and machine reading while being engaged in improving the systems that access their data.

> *"When information about a library's collection is locked up behind a specific web site (such as an OPAC), it is often exceedingly difficult for services, such as search engines, that consume data. Information seekers need to be connected back to their*

local library resources from wherever they are on the web (OCLC, "Data Strategy and Linked Data," 2014).