

# Virtual AskQC Office Hours

Linked data, and the road to learning it

OCLC Metadata Quality

October 2020



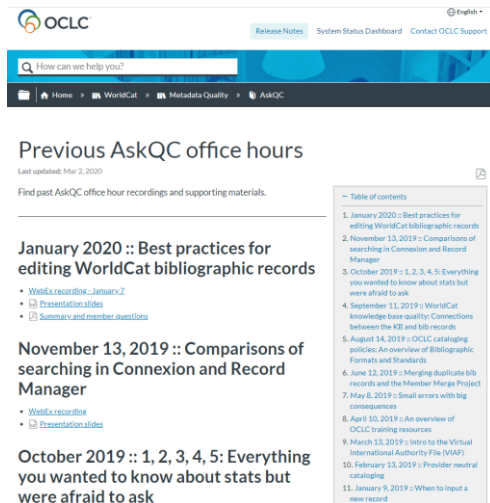
## Housekeeping

- This session is being recorded



# Housekeeping

- This session is being recorded
- All session recordings, slides, and notes are available at [oc.lc/askqc](http://oc.lc/askqc)



The screenshot shows the OCLC AskQC website. At the top, there is a navigation bar with the OCLC logo, a search bar, and links for "Release Notes", "System Status Dashboard", and "Contact OCLC Support". Below the navigation bar is a search bar with the text "How can we help you?". The main content area is titled "Previous AskQC office hours" and includes a sub-header "Last updated: Mar 2, 2020". Below this, there is a link to "Find past AskQC office hour recordings and supporting materials." The main content area lists three office hours:

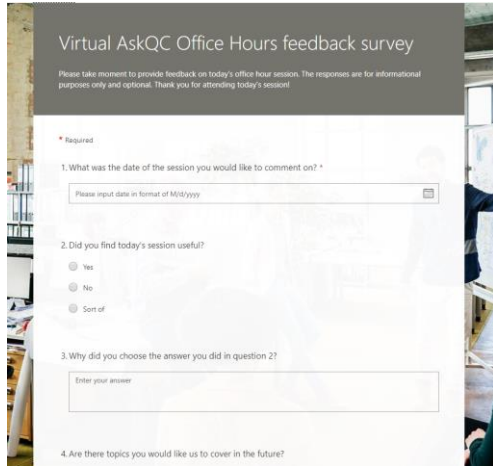
- January 2020 :: Best practices for editing WorldCat bibliographic records**
  - [WebEx recording - January 7](#)
  - [Presentation slides](#)
  - [Summary and member questions](#)
- November 13, 2019 :: Comparisons of searching in Connexion and Record Manager**
  - [WebEx recording](#)
  - [Presentation slides](#)
- October 2019 :: 1, 2, 3, 4, 5: Everything you wanted to know about stats but were afraid to ask**

On the right side of the page, there is a "Table of contents" section with a list of 11 items:

1. January 2020 :: Best practices for editing WorldCat bibliographic records
2. November 13, 2019 :: Comparisons of searching in Connexion and Record Manager
3. October 2019 :: 1, 2, 3, 4, 5: Everything you wanted to know about stats but were afraid to ask
4. September 11, 2019 :: WorldCat knowledge base quality: Connections between the KB and bib records
5. August 14, 2019 :: OCLC cataloging policies: An overview of Bibliographic Formats and Standards
6. June 12, 2019 :: Merging duplicate bib records and the Member Merge Project
7. May 8, 2019 :: Small errors with big consequences
8. April 10, 2019 :: An overview of OCLC training resources
9. March 13, 2019 :: Intro to the Virtual International Authority File (VIAF)
10. February 13, 2019 :: Provider neutral cataloging
11. January 9, 2019 :: When to input a new record

# Housekeeping

- This session is being recorded
- All session recordings, slides, and notes are available at [oc.lc/askqc](https://oc.lc/askqc)
- After the session, you will be directed to a brief, optional survey



Virtual AskQC Office Hours feedback survey

Please take a moment to provide feedback on today's office hour session. The responses are for informational purposes only and optional. Thank you for attending today's session!

\* Required

1. What was the date of the session you would like to comment on? \*

Please input date in format of MM/DD/yyyy

2. Did you find today's session useful?

Yes

No

Sort of

3. Why did you choose the answer you did in question 2?

Enter your answer

4. Are there topics you would like us to cover in the future?

## On the call today



**Nathan Putnam**  
Director, Metadata Quality



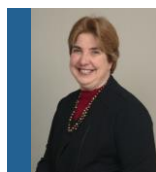
**Charlene Morrison**  
Database Specialist II



**Shanna Griffith**  
Database Specialist II



**Robert Bremer**  
Senior Consulting  
Database Specialist



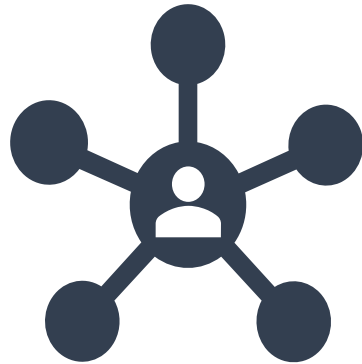
**Becky Dean**  
Senior Product  
Operations Analyst

# Linked data, and the road to learning it

**Charlene Morrison**  
Database Specialist II

## Overview

- Linked data basics
- OCLC and linked data services
- Metadata Quality's Journey
- Your Journey: Sources & Resources



## Linked data terms

T	S	P	e	O	R	T	C	P
r	u	r		b	D	u	l	r
i	b	e		j	F	r	a	o
p	j	d		e		t	s	p
l	e	i		c		l	s	e
e	c	c		t		e		r
s	t	a						t
		t						y



## Linked data terms

- Triple: Dreamcatcher **was written by** Stephen King
- Class: Work & Author
- Property: **createdBy**
- RDF: standard for exchanging data
- Turtle: an RDF format designed to be easy to read

### Sources:

<https://www.w3.org/TR/ld-glossary/> &

[https://www.w3.org/2001/sw/wiki/Semantic\\_Web\\_terminology](https://www.w3.org/2001/sw/wiki/Semantic_Web_terminology)

<https://www.w3.org/TR/ld-glossary>

[https://en.wikipedia.org/wiki/RDF\\_Schema#Properties](https://en.wikipedia.org/wiki/RDF_Schema#Properties)

[https://en.wikipedia.org/wiki/Internationalized\\_Resource\\_Identifier](https://en.wikipedia.org/wiki/Internationalized_Resource_Identifier)

## Linked data example

### Two titles

Optimizing digestive health  
with timothy hay and bluegrass

The nutritious carrot

### Two authors



## Linked data example

### MARC

010 no2019WEEK11

100 1 Morrison, Ollie

670 Optimizing digestive health with timothy  
hay and bluegrass, 2020



Photo by C. Morrison

has label

### Linked Data

Morrison, Ollie

has LCCN

no2019WEEK11

has work

Optimizing digestive health with  
timothy hay and bluegrass

## Linked data example

### MARC

010 no2019WEEK12  
100 1 Morrison, Geo  
670 The nutritious carrot, 2020

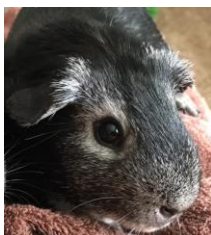
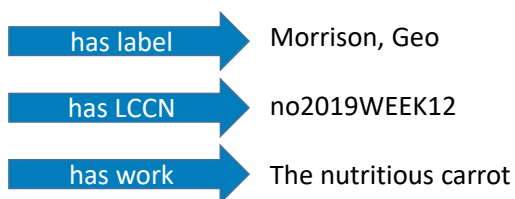


Photo by C. Morrison

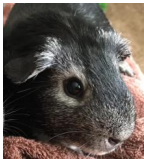


## Linked data example



```
@prefix gpa: <http://guineapigauthors.org/authors/#> .  
@prefix gpa: <http://guineapigauthors.org/> .  
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .
```

```
gpa:OllieMorrison  
  rdfs:label "Ollie Morrison" ;  
  gpa:created "Optimizing digestive health with timothy hay and bluegrass" ;  
  gpa:uri <http://id.loc.gov/authorities/names/no2019WEEK11>;  
  gpa:uri <https://orcid.org/0000-WEEK-2019-1101> .
```



```
gpa:GeoMorrison  
  rdfs:label "Geo Morrison" ;  
  gpa:created "The nutritious carrot" ;  
  gpa:uri <http://id.loc.gov/authorities/names/no2019WEEK12>;  
  gpa:uri <https://orcid.org/0000-WEEK-2019-1102> .
```

Photos by C. Morrison

Other Examples of Linked Data in Action:

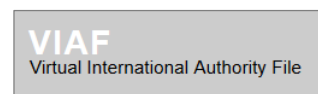
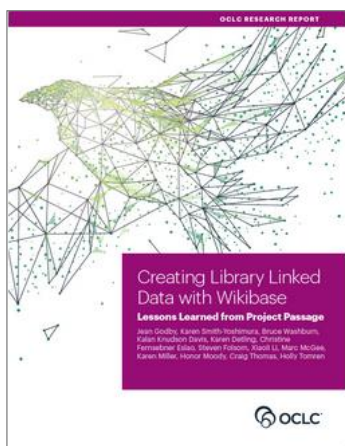
<https://civilwaronthewesternborder.org/>

<https://www.loc.gov/bibframe/implementation/index.html>

<https://lod-cloud.net/>

<https://id.loc.gov/tools/bibframe/>

## OCLC and linked data services



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### Sources & Further reading:

CONTENTdm - <https://www.oclc.org/en/contentdm.html>

FAST Linked Data - <http://experimental.worldcat.org/fast/>

VIAF - <http://viaf.org/>

WorldCat.org - <https://www.worldcat.org/>

OCLC Research - [oclc.org/research/](https://oclc.org/research/)

### **OCLC Expert Cataloging Community Sharing Session minutes, January 2020**

[https://help.oclc.org/WorldCat/Metadata\\_Quality/Expert\\_community/OCLC\\_Expert\\_Cataloging\\_Community\\_Sharing\\_Sessions/OCLC\\_Expert\\_Cataloging\\_Community\\_Sharing\\_Session\\_minutes\\_January\\_2020](https://help.oclc.org/WorldCat/Metadata_Quality/Expert_community/OCLC_Expert_Cataloging_Community_Sharing_Sessions/OCLC_Expert_Cataloging_Community_Sharing_Session_minutes_January_2020)

### **OCLC awarded Mellon Foundation grant to develop infrastructure to support linked data management initiatives**

<https://www.oclc.org/en/news/releases/2020/20200109-oclc-awarded-mellon-grant-linked-data-management-infrastructure.html/>

### **Transitioning to the Next Generation of Metadata**

<https://www.oclc.org/research/publications/2020/oclc-research-transitioning-next->

generation-metadata.html

**Getting Started with Linked Data presentations: Has beginner, intermediate, and advanced learning opportunities.**

*<https://www.oclc.org/research/areas/data-science/linkedata/linked-data-getting-started.html>*

**OCLC Research presentations:**

<https://www.oclc.org/research/presentations.html>

Research Areas Partnership People News & Events Publications Presentations About

Research Research Areas Data Science Linked Data from OCLC Research

## Linked Data

Linked Data is about communities agreeing on the meaning of their data and sharing it in a massively networked information space. This vision is taking shape in many sectors, including e-commerce, medicine, scientific research, and government services. OCLC Research is a leader in driving this transformation in the library community.

Current Work Overview Research Standards Work Linked Data Survey

### Current Work

Learn about the most recent OCLC Research developments in Linked Data below. Track the latest developments on [Hanging Together](#), the [OCLC Research blog](#). Even more context about OCLC's work in linked data is provided in the [Overview](#).

[Archives and Special Collections Linked Data: Navigating between Notes and Nodes](#)

21 July 2020

**OCLC Research Archives and Special Collections Linked Data Review Group**

This publication shares the findings from the Archives and Special Collections Linked Data Review Group, which explored key areas of concern and opportunities for archives and special collections in transitioning to a linked data environment.

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**OCLC Receives Mellon Grant for Linked Data**

OCLC has been awarded a grant from The Andrew W. Mellon Foundation to develop a shared Entity Management Infrastructure that will support linked data management initiatives underway in the library and scholarly communications community. When complete, this infrastructure will be jointly curated by the community and OCLC and will ultimately make scholarly materials more connected and discoverable on the web.

The two-year grant, for \$2.436 million, will support work on the project from January 2020 to December 2021.

[Data Science](#)

**Getting Started**


New to linked data? No problem. We've pulled together some resources to help you get started with linked data. Check them out.

[Get Started](#)

**Join the Linked Data Conversation**

Find OCLC Research's latest Linked Data ideas, thoughts, data, and projects on our blog Hanging Together.

[Read Linked Data Posts](#)

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Source:

<https://www.oclc.org/research/areas/data-science/linkeddata.html>

<https://hangingtogether.org/?cat=124>



Research Areas Partnership People News & Events Publications Presentations About

Research Presentations


## Presentations

Presentations Pre-2017 Presentations

**Narrow by**

**Author**

- Brittany Brannon (5)
- Rebecca Bryant (27)
- Eric Childress (2)
- Lynn Siliopigi Connaway (82)
- Chris Cyr (3)
- Lorcan Dempsey (17)
- Jackie Dooley (3)
- Annette Dortmund (2)
- Ischell M. Farniel (12)
- Rachel Frick (9)
- Jean Godby (6)
- Bethia Gutsche (6)
- Erin M. Hood (1)
- Brian Lavoie (5)
- Constance Malpas (7)
- Dennis Massie (6)
- Jeff Minder (16)
- Kendra Morgan (4)
- OCLC Research (1)



[Cross-campus partnerships, the library, and the university research enterprise](#)

**By Brian Lavoie, Rebecca Bryant, Annette Dortmund**


26 August 2020

[Works in Progress webinar](#)

virtual

This webinar is the first in a series offered by the OCLC Research Library Partnership focusing on cross-campus collaboration in research support.

File: ppt, 62MB Topics: Research Information Management, Role of Libraries in Data Curation, Institutional Organization, Researcher Support, Research Data Management, Works in Progress



[OCLC Linked Data: Research, experimental applications, and shared infrastructure](#)

**By Andrew Pace, John Chapman**


9 July 2020

LD4 Conference 2020

virtual

This presentation summarized OCLC's findings on the impact of new workflows in the ground-shifting transition from traditional cataloging to linked data platforms, highlighted the integral engagement, participation, and feedback from OCLC members, and attempted to chart a linked data research path for the decade to come.

Recording available on [LD4 on YouTube](#).

16 October 2020
Virtual AskQC Office Hours: Linked data, and the road to learning it


Source:  
<https://www.oclc.org/research/presentations.html>

Research Areas Partnership People News & Events Publications Presentations About

Research Publications

## Publications

Publications Blogs Supporting Work Previous Publications

**Narrow by**

**Author**

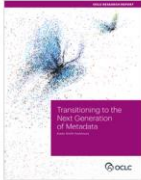
- Rick Bennett (5)
- Brittany Brannon (3)
- Rebecca Bryant (9)
- Eric Childress (3)
- Lynn Silipigni Connaway (43)
- Chris Cyr (8)
- Lorcan Dempsey (18)
- Jackie Dooley (10)
- Annelie Dorfmann (1)
- Brooke Doyle (1)
- Ricky Erway (14)
- Ischell M. Faniel (22)
- Jean Godby (10)
- Belha Gutsche (1)
- Thom Hickey (1)
- Erin M. Hood (9)
- Kerre Kammerer (5)
- Brian Lavoie (27)

[Transitioning to the Next Generation of Metadata](#)

29 September 2020

**Karen Smith-Yoshimura**

This report synthesizes six years (2015-2020) of OCLC Research Library Partners Metadata Managers Focus Group discussions to trace how metadata services is transitioning into the "next generation of metadata" and its impact on future metadata services and staffing requirements.

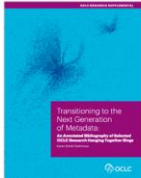



[Transitioning to the Next Generation of Metadata - Annotated Bibliography](#)

29 September 2020

**Karen Smith-Yoshimura**

An annotated bibliography that provides details on blog posts from Hanging Together: The OCLC Research Blog referenced in the *Transitioning to the Next Generation of Metadata* report.



17 October 2020 Virtual AskQC Office Hours: Linked data, and the road to learning it 

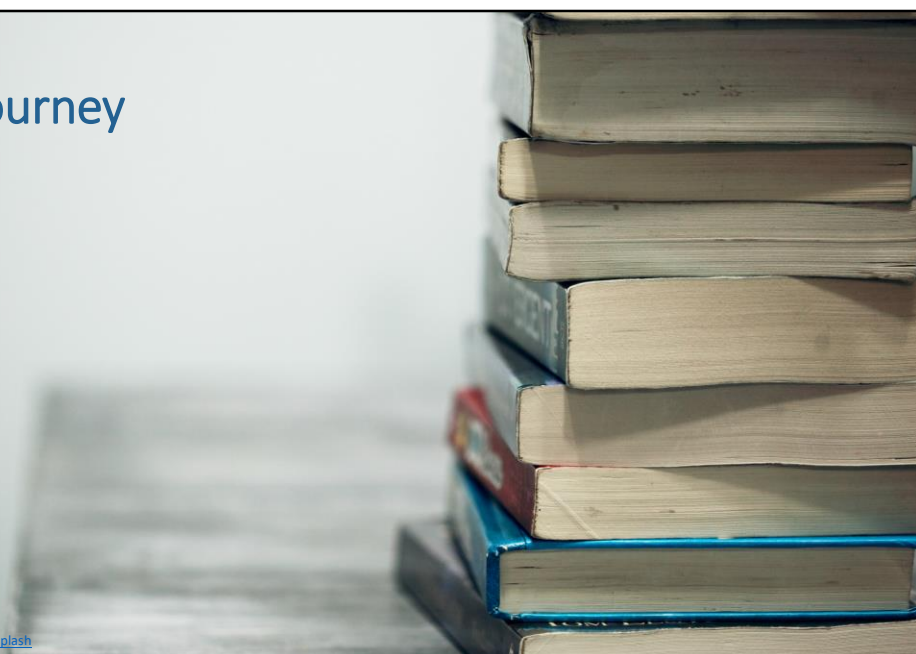
Source:  
<https://www.oclc.org/research/publications.html>

## Metadata Quality and linked data

- MARC Advisory Committee
- Committee on Cataloging: Description and Access (CC:DA)
- IFLA Permanent UNIMARC Committee
- Music Library Association Cataloging and Metadata Committee
  - Content Standards
  - Encoding Standards
  - Vocabularies
- PCC Standing Committee on Standards
  - BIBFRAME and MARC Bibliographic Encoding for Languages (BABEL) Task Group
- PCC Standing Committee on Training
  - SCT RDA 3R Training Task Group
- MARC/RDA Working Group
- LD4-Wikidata Affinity Group

# Your journey

Photo by [Sharon McCutcheon](#) on [Unsplash](#)



## Your journey

- Courses
  - Linked Data for Beginners
  - Library Juice
  - Codecademy
- Conferences, Webinars & Presentations
  - 2020 LD4 Conference
  - RDA New Concept Series
  - Linked Data for the Real World: Leveraging Metadata for Cataloging (Georgia Public Library Service)

20 October 2020

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Linked Data for Beginners – taught by Steven J. Miller from the University of Wisconsin Milwaukee

<https://sites.uwm.edu/ml/linked-data-for-beginners/>

Library Juice, XML and RDF-Based Systems

<https://libraryjuiceacademy.com/certificate/xml-and-rdf-based-systems/>

Library Juice, The SPARQL Fundamentals

[https://libraryjuiceacademy.com/shop/course/055-sparql-fundamentals-1/?attribute\\_pa\\_session=2021-01-jan](https://libraryjuiceacademy.com/shop/course/055-sparql-fundamentals-1/?attribute_pa_session=2021-01-jan)

2020 LD4 Conference

<https://sites.google.com/stanford.edu/ld42020/>

RDA New Concept Series

<https://www.alastore.ala.org/search/store/product-type/elearning/subject/cataloging-knowledge-and-information-management>

Linked Data for the Real World: Leveraging Metadata for Cataloging (Georgia Public Library Service)

<https://vimeo.com/421133664>

## Your journey

- 2020 LD4 Conference
  - Data Sources Track
  - Discovery Track
  - Infrastructure Track
  - LD for Beginners Track
  - Special Collections Track
  - Wikidata Track, Day 1
  - Wikidata Track, Day 2

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2020 LD4 Conference: <https://sites.google.com/stanford.edu/ld42020/>

LD for Beginners track

"I don't think I'll ever understand linked data": <https://youtu.be/Q0Y2IVoYLFo>

Being solo no more: <https://youtu.be/NUdtncPcQyk>

Diving into Wikidata workshop: <https://youtu.be/f756VIWN360>

Wikidata Track, Day 1

Welcome: <https://youtu.be/GOmHxzXNN3Q>

Wikidata Tutorial: <https://youtu.be/-pFTxOoiuYI>

Advanced Wikidata Tools and Concepts: <https://youtu.be/252mXCjFaCQ>

Developing a Wikidata Project: <https://youtu.be/WkIS8s2IKM0>

Wikidata Track, Day 2

Welcome: <https://youtu.be/z7MGto1iStk>

VanderBot: Using a Python Script...: <https://youtu.be/xjQ8rJufeOU>

No bricks without clay: <https://youtu.be/BDsKvFkdqRU>

Adding References to Wikidata: <https://youtu.be/ZEWMrUjGg0>

Data Sources track

ISSN; IFLA; ID.LOC.GOV: <https://youtu.be/96r2uu0hUPE>

Identity management principles: <https://youtu.be/6FIJCcnniTI>

Discovery track

What does LD discovery really look like?: <https://youtu.be/XGmMj1efv-M>

Special Collections Track

Women Writers, Wikidata for Archives: <https://youtu.be/Tluagd55k5k>

Linked data with SNAC: [https://youtu.be/Se5Hr\\_qtovc](https://youtu.be/Se5Hr_qtovc)

Infrastructure Track

Library of Congress BIBFRAME Editor experience:

[https://youtu.be/MuS7\\_KOIPGk](https://youtu.be/MuS7_KOIPGk)

Linked data for libraries with Wikibase: <https://youtu.be/FVmxpaB-Th4>

OCLC linked data research, Infrastructure track: <https://youtu.be/nqQgJ9f3MOc>



## Your journey

- Europeana
  - Linked Open Data
- LD4 Affinity Groups
- RDA
  - RDA Learning
  - RDA YouTube channel
  - RDA Lab Series (ALA store)
- University of Minnesota Libraries, Linked Data page

Europeana produced a brief explanation of linked open data.

Linked Open Data: <https://vimeo.com/36752317>

LD4 Affinity Groups:

LD4-Wikidata Affinity Group:

<https://wiki.lyrasis.org/display/LD4P2/LD4-Wikidata+Affinity+Group>

Bi-weekly meetings on Wikidata related topics

Wikidata Working Hours

Ethics in Linked Data Affinity Group:

<https://wiki.lyrasis.org/display/LD4P2/Ethics+in+Linked+Data+Affinity+Group>

Non-Latin Script Materials Affinity Group:

<https://wiki.lyrasis.org/display/LD4P2/Non->

## [Latin+Script+Materials+Affinity+Group](#)

LD4 Profiles Affinity Group:

<https://wiki.lyrasis.org/display/LD4P2/LD4+Profiles+Affinity+Group>

RDA

RDA Learning: <https://www.rdatoolkit.org/learning>

RDA YouTube: <https://www.youtube.com/c/RDAToolkitVideo>

RDA Lab Series: <https://www.alastore.ala.org/content/rda-lab-series>

University of Minnesota Libraries, Linked Data:

<https://www.minitex.umn.edu/services/cataloging-metadata/cataloging-metadata-standards/linked-data>

## Your journey

- Wikimedia
  - A Gentle Introduction to Wikidata for Absolute Beginner
  - Querying Wikidata with SPARQL for Absolute Beginners
- Wiki Education
- W3C
  - Semantic Web Tutorials
    - Semantic Web Data
    - Semantic Web Ontology
  - Linked Data Glossary

### Wikimedia

A Gentle Introduction to Wikidata for Absolute Beginners:

<https://youtu.be/eVrAx3AmUvA>

Querying Wikidata with SPARQL for Absolute Beginners:

<https://www.youtube.com/watch?v=kJph4q0Im98>

Wiki Education: <https://wikiedu.org/professional-development/>

W3C:

### Semantic Web Tutorials:

<https://www.w3.org/2002/03/tutorials>

Semantic Web Data

Semantic Web Ontology

### W3C Linked Data Glossary:

<https://www.w3.org/TR/ld-glossary/>

# Questions?



**Nathan Putnam**  
Director, Metadata Quality



**Charlene Morrison**  
Database Specialist II



**Shanna Griffith**  
Database Specialist II



**Robert Bremer**  
Senior Consulting  
Database Specialist



**Becky Dean**  
Senior Product  
Operations Analyst

# Thank you!

**November Virtual AskQC Office Hours**  
OMG, there are so many 5xx fields,  
what do I do?

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**Thursday**, 5 Nov. at 9:00 AM Eastern  
Thursday, 12 Nov. at 4:00 PM Eastern

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**Registration and session links**  
available at [oc.lc/askqc](https://oc.lc/askqc)

Send cataloging policy questions at  
any time to [askqc@oclc.org](mailto:askqc@oclc.org)

