# Linked Data for Libraries Training Course

Professional Development Training Course Outline

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| **Category** | Library Institute | **Duration** | 5 Days |
| **Base Fee** | $1,500 USD | **Delivery Mode** | Online / On-site Hybrid |

## Course Introduction

Linked Data for Libraries Training Course is designed to equip library professionals, information managers, digital archivists, and knowledge specialists with advanced skills in semantic web technologies, linked data principles, metadata transformation, and knowledge graph development. The course focuses on modernizing library information systems through Resource Description Framework (RDF), Uniform Resource Identifiers (URIs), ontologies, and open data strategies that enhance discoverability, interoperability, and global information exchange. Participants will gain practical knowledge on transforming traditional library metadata into machine-readable linked data structures that support digital transformation and next-generation library services.

As libraries continue adopting artificial intelligence, digital repositories, and data-driven knowledge management solutions, linked data has become a critical technology for improving research visibility and information accessibility. This training course explores international standards, best practices, and implementation strategies used by leading libraries worldwide. Through practical exercises and global case studies, participants will learn how to develop sustainable linked data ecosystems that improve cataloguing efficiency, research collaboration, and digital resource integration.

## Programme Curriculum

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**Course Objectives**

1. Understand the fundamentals of linked data, semantic technologies, and knowledge graph development.
2. Develop expertise in RDF, SPARQL, URIs, and metadata interoperability standards.
3. Apply linked data principles to modern library cataloguing and digital repositories.
4. Gain practical skills in transforming traditional metadata into linked data formats.
5. Explore emerging trends in artificial intelligence and semantic search technologies.
6. Implement global best practices for linked data management in libraries.
7. Enhance digital resource discovery through interconnected information networks.
8. Understand ontology design and controlled vocabulary management.
9. Develop strategies for linked data adoption and implementation.
10. Improve library data quality, accessibility, and research visibility.
11. Analyze international linked data frameworks and standards.
12. Build knowledge graph solutions for library information systems.
13. Support digital transformation initiatives through innovative data management approaches.

**Organizational Benefits**

- Improved library data interoperability and resource discovery capabilities.
- Enhanced digital transformation and innovation within information organizations.
- Increased visibility of institutional collections through global data networks.
- Better metadata quality and automated information management processes.
- Improved collaboration between libraries, universities, and research institutions.
- Stronger adoption of artificial intelligence and semantic technologies.
- Reduced duplication of cataloguing and metadata creation efforts.
- Increased accessibility of digital resources for researchers and users.
- Development of future-ready information management capabilities.
- Improved compliance with international library data standards.

**Target Audiences**

1. Librarians and information professionals.
2. Digital archivists and repository managers.
3. Library technology specialists.

4. University and research institution staff.
5. Metadata specialists and cataloguers.
6. Data management professionals.
7. Knowledge management consultants.
8. IT professionals supporting library systems.

**Course Duration:** 5 days

**Course Modules**

**Module 1: Introduction to Linked Data Concepts in Libraries**

- Fundamentals of linked data and semantic web technologies.
- Understanding the evolution from traditional cataloguing to linked data.
- Key principles of RDF, URIs, and open data structures.
- Benefits of linked data adoption in modern libraries.
- Global case study: Library of Congress linked data transformation initiatives.
- Practical discussion on linked data applications in libraries.

**Module 2: Metadata Standards and Transformation Strategies**

- Overview of metadata standards including MARC, Dublin Core, and BIBFRAME.
- Techniques for converting legacy metadata into linked data formats.
- Metadata enrichment and quality improvement approaches.
- Data mapping and interoperability strategies.
- Global case study: European library metadata transformation projects.
- Practical exercises on metadata conversion workflows.

**Module 3: Resource Description Framework (RDF) and Data Modeling**

- Understanding RDF structures and triple-based data models.
- Creating RDF statements for library resources.
- Managing relationships between digital resources.
- Applying RDF vocabularies and schemas.
- Global case study: World Wide Web Consortium linked data standards.
- Hands-on RDF modeling activities.

**Module 4: Ontologies and Knowledge Graph Development**

- Introduction to ontology concepts for library environments.
- Designing relationships between entities and resources.
- Developing library knowledge graphs.
- Applying controlled vocabularies and authority data.

- Global case study: Wikidata knowledge graph integration.
- Practical ontology development exercises.

**Module 5: SPARQL Querying and Linked Data Access**

- Understanding SPARQL query language fundamentals.
- Retrieving information from linked data repositories.
- Creating advanced queries for library datasets.
- Integrating SPARQL with digital library platforms.
- Global case study: National library linked data search systems.
- Practical SPARQL query development sessions.

**Module 6: Linked Data Implementation and Management**

- Planning linked data implementation strategies.
- Managing linked data projects and workflows.
- Evaluating technology requirements and resources.
- Addressing challenges in linked data adoption.
- Global case study: British Library linked data initiatives.
- Developing organizational implementation roadmaps.

**Module 7: Future Trends in Linked Data and Digital Libraries**

- Exploring artificial intelligence applications in linked data.
- Understanding machine learning and semantic search integration.
- Examining future digital library ecosystems.
- Applying linked data for research innovation.
- Global case study: AI-powered academic library platforms.
- Developing future-focused library data strategies.

**Module 8: Linked Data Governance and Best Practices**

- Establishing linked data governance frameworks.
- Managing data security, quality, and sustainability.
- Applying international linked data standards.
- Monitoring linked data performance and impact.
- Global case study: International research library collaborations.
- Creating sustainable linked data management plans.

**Training Methodology**

- Instructor-led interactive presentations covering linked data concepts and applications.
- Practical demonstrations using linked data tools and library platforms.
- Hands-on exercises involving RDF creation, metadata conversion, and SPARQL queries.
- Global case studies analyzing successful library linked data implementations.
- Group discussions focused on challenges and implementation strategies.
- Practical assessments to evaluate participant understanding and application skills.

**Register as a group from 3 participants for a Discount**

**Send us an email: info@fineskilltrainingcenter.org or call** *+254769199797*

***Certification***

*Upon successful completion of this training, participants will be issued with a globally- recognized certificate.*

***Tailor-Made Course***

*We also offer tailor-made courses based on your needs.*

**Key Notes**

**a.** The participant must be conversant with English.

**b.** Upon completion of training the participant will be issued with an Authorized Training Certificate

**c.** Course duration is flexible and the contents can be modified to fit any number of days.

**d.** The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

**e.** One-year post-training support Consultation and Coaching provided after the course.

**f.** Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

## Upcoming Scheduled Sessions

| Start Date | End Date | Location | Price |
|---|---|---|---|
| **23 Nov 2026** | 27 Nov 2026 | Online | $1,000 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $1,500 |

| Start Date | End Date | Location | Price |
|---|---|---|---|
| **23 Nov 2026** | 27 Nov 2026 | Physical | $3,000 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $3,000 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $6,000 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $4,500 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $6,000 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $6,000 |

Ready to enroll or request a customized program? Book online or contact us:

**Register Online Now**

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