

Unlocking Connections

How Linked Open Data (LOD) Benefits Library Users



Itai Veltzman | September 2024

Making it Work... Together



ExLibris. ||GetLU

Thank You, Linked Data Focus Group!











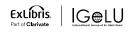






Harvard Princeton UCDAVIS

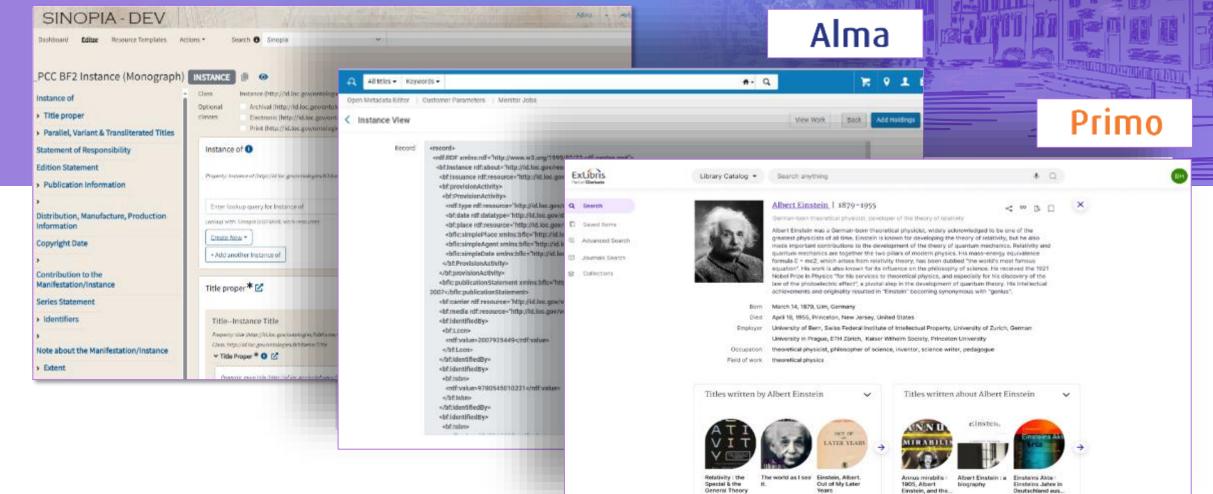




The Goal: End-to-End Workflow

From Sinopia, via Alma to Primo





Albert Elephon

1076-1855, Hanach Gutheand, Argan Barn 1850Albert Employ 9079-1855[Bbc/capel]

all Pilew York

Rogets, Micheel

John Behale 1986-) Alleroid Filling (960) Segfried Brandmann Mary door New Yes Ocontorial Bras. 1907 01998 1907 01998

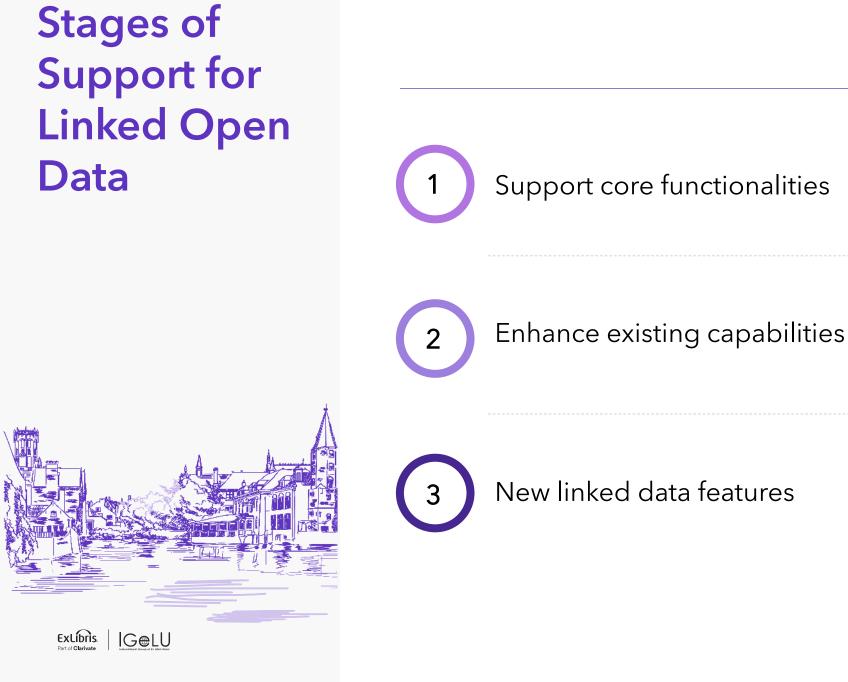
Chundberlah Bros. 6/2005





Testing Sinopia Integration and Alma Workflows

- Working with Sinopia
 - From theory to practice
- Testing Alma
 - Bring Alma to a production-ready state for BIBFRAME work and instance
- Discuss and define the development of new features and functionalities



Support Existing Workflows in Alma



ঠ্য

Open platform

- APIs for BIBFRAME work and instance
- BIBFRAME in SRU (as BIBFRAME and as MARC)

ĒQ

Search

- MARC indexes
- Work URI (parent URI)
- Instance URI (title URI)

•

Resource Management

- Add to sets (hybrid or single metadata format)
- Add to portfolio
- Add holdings and item
- Publish as MARC and as BIBFRAME

<u>(;;</u>)

Fulfillment and Acquisitions

- Add PO lines
- Lend to patron



Discovery

- Discoverable in Primo
- New Dedup keys
- New FRBR keys

a

Analytics

- Support for instance
- Support for work



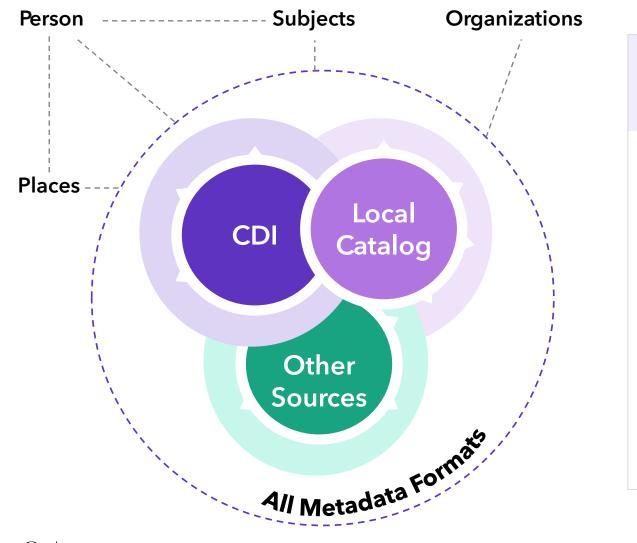
Linked Open Data Functionalities For All Formats - Alma

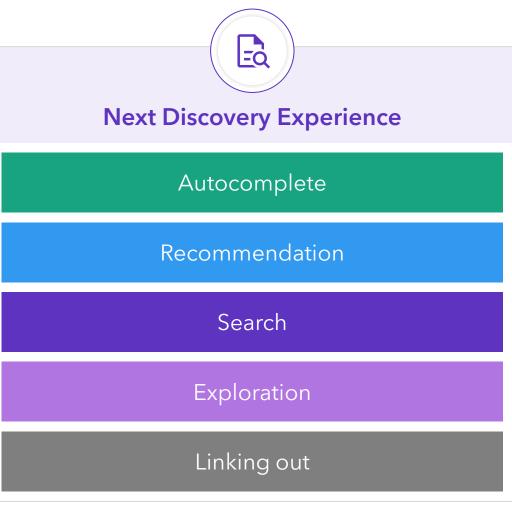
11. A		< All Title 20.0	Contributor P	age			Generate new search	1
Q. Find specific facet		Veok (Bo	CONTRACTOR OF CONT	Beethoven, Ludwig van, 1770-1827				
Material Type Book (1044) Journal (11) Map (2)	^	Physics	eetho Ion Da	German composer (1770–1827) Born 1770-12-17, Bonn (Germany) Died 1827-03-26, Vienna (Austria) Ludwig van Beethoven (baptised 17 December 1770	Осси	of Work Music pation Composers, Planists oser and planist. He is one of the most rever	Contributor	Page
+ More (2) Resource Type Audio music (267) Audio music (232) Audio nonmusi (3) More (11) Language Chinese (5) Czech (1) Danish (2) More (22)	*	8 Destroyed	ok - Pr r, Barn Biogr ap**	music; his works rank among the most performed of Beethoven's career has conventionally been divided until 1802. From 1802 to around 1812, his middle sometimes characterized as heroic. During this time expression.Born in Bonn, Beethoven displayed his m Gottlob Neefe. Under Neefe's tutelage in 1783, he pu von Breuning, whose children he loved, befriended, Haydn. Beethoven then gained a reputation as a virt 1 plano trios (the earliest works to which he accorde See More In Wikipedia Source: Library of Congress Name Authority and Wil	into early, middle, and late periods. His ea e period showed an individual developm the began to grow increasingly deaf. In hil usical talent at a young age. He was initi- blished his first work, a set of keyboard va and taught piano. At age 21, he moved uoso pianist, and was soon patronised by d an opus number) In 1795. His first major	arly period, during which he forged his craft, is ent from the styles of Joseph Haydn and V s late period, from 1812 to 1827, he extended ally taught intensively by his father, Johann va ariations. He found relief from a dysfunctional to Vienna, which subsequently became his to Karl Alois, Prince Lichnowsky for compositio	typically considered to have lasted Wolfgang Arnadeus Mozart, and is his innovations in musical form and an Beethoven, and later by Christian home life with the family of Helene hase, and studied composition with ns, which resulted in his three Opus	
Publication Year	~	y Huber	LJ. Fo	of Titles (1 - 5 of 33)			^	
1800 - 1887 (56) 1868 (480) 1869 - 1987 (453) 1988 - 2001 (440) 2002 - 2014 (389)		eck (Bo y Tovey, ubject B todificat	Donal eethor ion Do (2)	Piano sonata no. 23, in F minor, op. 57 (* By Beethoven, Ludwig van, (New York; RCA [1979]) MMS ID 9998557190001021	Appassionata")			
Collections Art titles (2)	^	10 Beethov Book (B By Golie Subject -Biogram	ook - F rich, A Beeth ihy 3 0	Favorite Beethoven sonatas. By Beethoven, Ludwig van, (Columbia 1977) MMS ID 99107848210001021 Sonata no. 1 in F major for cello and piar By Beethoven, Ludwig van, (New York : CBS Master		3 minor for cello and piano, op. 5, n	o. 2 Beethoven.	
7	«	Series M herausg Modifica	egebe	MMS ID 99111857060001021				

.

Exclibris. | |G@LU

A Richer Discovery Experience Across all Sources and Formats







Guiding Users to Their Destination

ExLibris	JOURNAL SEARCH	TAGS	NEW SEARCH	ILL REQUEST	•••	(اقاق 🖡	Sign in	Menu 👻
The meaning o	frelativity				;	م ×	ADVANCE) SEARCH	
< ВАСК									
TOP CITE OR SHARE	воок The meaning of Einstein, Albert, 187 1967 ∂ Available Online ≡ Chapters of this Cite or Share	9-1955, autho	r.einstein, alber	t,		X	Related Po	ersons	
VIEW ONLINE DETAILS	MENDELEY	READING LIST	SHARE	EXPORT TO EXCEL	EXPORT BIBTEX		1955 German-b	orn theoretical developer of the	
TAGS RELATED LINKS EXPLORE	EXPORT RIS CITATION	EASYBIB O PERMALINK	ENDNOTE EMAIL	RW	PRINT			elativity (1879–195 1879-03-11, Ulm (Germany) 1955-04-18,	

EXLIDIS. Part of Clarivate IGelU





...and More

Einstein, Albert, 1879-1955

German-born theoretical physicist; developer of the theory of relativity (1879–1955)

Albert Einstein (EYEN-styne; German: [albeet 'Parnftarn]; 14 March 1879 – 18 April 1955) was a German-born theoretical physicist who is widely held to be one of the greatest and most influential scientists of all time. Best known for developing the theory of relativity, Einstein also made important contributions to quantum mechanics, and was thus a central figure in the revolutionary reshaping of the scientific understanding of nature that modern physics accomplished in the first decades of the twentieth century. His mass—nergy equivalence formula E = mc2, which arises from relativity theory, has been celled "the world's most famous equation". He received the 1921 Nobel Prize in Physics "for his services to theoretical physics, and especially for his discovery of the law of the photoelectric effect"; a pivotal step in the development of quantum theory. His work is also known for its influence on the philosophy of science. See more in Wikipedia

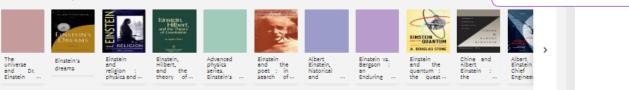
Born	1879-03-11, Ulm (Germany)
Died	1955-04-18, Princeton (N.J.)
Field Of Work	Physics
Occupation	Physicists, College teachers, Authors
Source	Library of Congress Name Authority and Wikidata

Titles in the Library By Einstein, Albert, 1879-1955



See All Titles

Titles in the Library Written About Einstein, Albert, 1879-1955





Person Information

Titles by

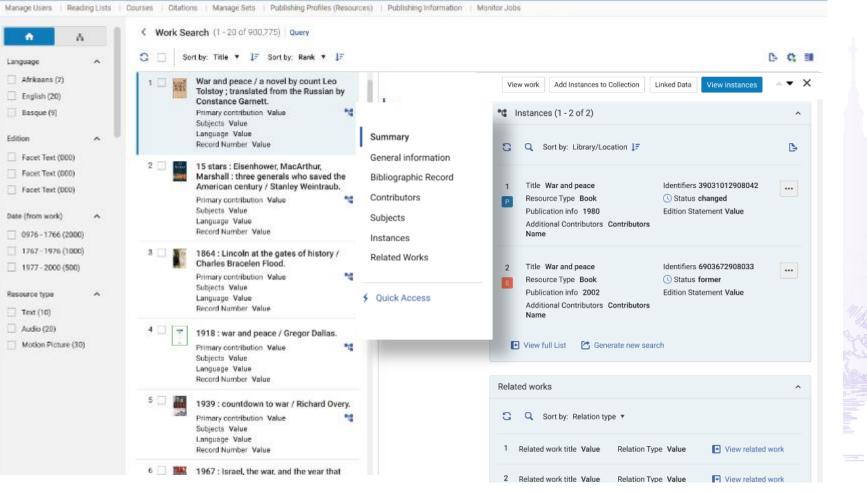
Titles about

So, What's Next?





Work Search



Note: The image is for illustrative purposes only



Work Consolidation with Al

- Using the work search as a platform for title matching and consolidating titles into works.
- Title Match for MARC and BIBFRAME
 - For duplication prevention, comparisons, copy cataloging, inter-library loans, weeding, retention, transitioning into full BIBFRAME and more
- Work Creation
- Today rule-based, Tomorrow Al







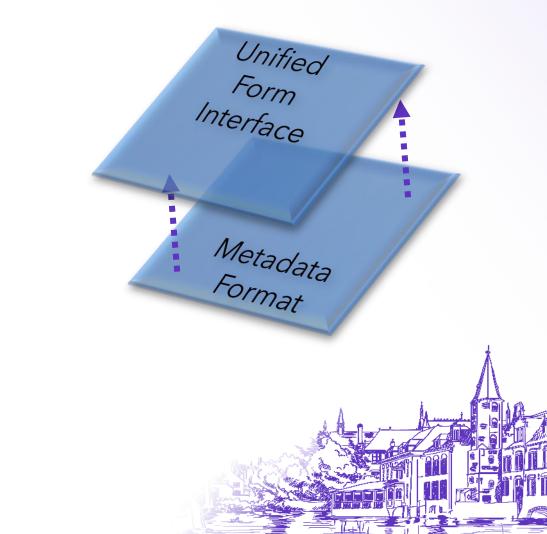
Linked Open Data Form Editor Our Goal

- Integrated form editor with resource management workflows
- Easy and flexible user interface
- Based on external ontology
- Display focus on labels
- Additional ontology metadata one click away

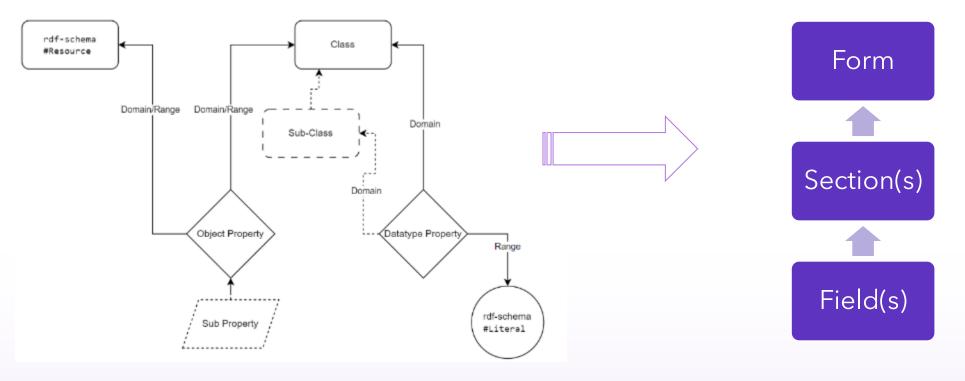


Linked Open Data Form Editor Our Approach

- A unified form interface with minimal changes between metadata formats.
- Optimal workflow best suited for catalogers.
- The ontology helps define the form (what attributes are used and the relation between them).



Form Creation: Ontology-Based



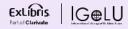
Splitting the process into different logical levels while still based on the Ontology.

Prototype



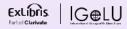
Field Creation

Fields Esections	✓ Fields (1 of 2) Sort by: C	lass ▼ ↓∓	Remove Selected 🕒 Create Field 🕒
Form	1 □ ● Part Number Class Title Sub Class Variant Title Property part Number Created by ♣ John Smith On 03/06/2024 00:00:00 ID Field-	Duplicate Remove 436373 436373 Part Number Created by \$ John Smith Field Details Class • • Title Class • • Title Class • • Title Sub Class Variant Title Property * part Number Field Description • Property * part number Field Description • Part or section enumeration Repeatable	Property Label * Property Label * part Number Note Enter Text Here



Field Creation

🗖 Fields	elds (1 of 2)			
IE Sections	Field V Q Sort by	y: Class ▼ ↓≓		Remove Selected 🕒 Create Field
Form 1	Part Number Class Title Sub Class Variant Title Property part Number Created by & John Smith On 03/06/2024 00:00:00 ID Fit	Duplicate Remove ····	Agent Created by 💲 John Smith On 03/06/2024 00:00:00	Edit 🖍 🔺 🗙
1 🗆	Title Class Title Sub Class Variant Title Property title Created by Lohn Smith On 03/06/2024 00:00:00 ID Fi	Duplicate Remove ····	Field Details Class * Agent Class Description	Input field type* Lookup Source LOC names, Wikidata
1	Agent Class Title Sub Class Person Property agent Created by Lohn Smith On 03/06/2024 00:00:00 ID Fi	Duplicate Remove ••••	Entity having a role in a resource, such as a person or organization Sub Class Person Property * agent Field description Entity associated with a resource or element of description, such as the name of the entity responsible for the content or of the	Property Label * Associated agent Note Enter Text Here
1	Role Class Role Sub Class - Property role Created by John Smith On 03/06/2024 00:00:00 ID Fi	Duplicate Remove ••••	publication, printing, distribution, issue, release or production of a resource	



Section Creation

Fields E Sections	✓ Sections (1 of 1) □ Sort by: Title ▼ ↓F Remove Selected Create Form ◆ Add New Section
Form	I Thite-Title variation Created by \$\$ doin Smith On 03/06/2024 00:00:00 ID Field-436373 Fields in Section Title part number Field - Title variation Created by \$\$ doin Smith On 03/06/2024 00:00:00 ID Field-436373 Summary

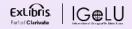
Section Creation

1

			< Section	ons (1 of 1)
	Fields			
:=	Sections			Sort by: Title
B	Form		1 🗆 🔘	Title - Tit
				Created by Fields In S

So	rt by: Title ▼ ↓=				Remove Selected	Create Form	Add New Section	B	
	Title - Title variation	Remove					Preview Edit 🖍	-	×
	Created by Sohn Smith On 03/06/2024 00:00:00 ID Field-436373 Fields In Section Title; part number			Contribution	On 03/06/2024 00:00:00 ID F	ield-436373			
	Contribution	Remove			011 03/00/2024 00:00:00 10 1	1010-450575			
	Created by Sohn Smith On 03/06/2024 00:00:00 ID Field-436373 Fields In Section Agent; Role			Summary					^

Class * Contribution Class Description Agent and role with respect to the the resource being described Sub Class - the resource being described Property * contribution Section Name (Property Label) * Contribution							
Field	ls Ir	Section					^
Field	is ir	Field	Label	Туре	Mandatory	Repeatable	^
Field	is Ir		Label agent	Type Lookup	Mandatory	Repeatable	•



Form Creation

Fields	< LOD Forms (1 of 1) □ Sort by: Title ▼ ↓F			Remove Selected 🕒 Add New Form 🕞 🗮
IE Sections	1 Created 05/06/2024	Remove •••		Preview Save X
			Summary Display Name Edit Form Description Form description goes here Class Instance Sub Class Print Enabled Sections IIIIE - Title variation Contribution Add Sections	



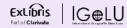
Edit Section While Creating

All titles -	Keywords 🕶		< Ed	< Edit Section						Preview	Sav	
□ Fields I≣ Sections	5	 < LOD Forms (1 of 1) □ Sort by: Title ▼ ↓F 	Sum	Summary						^		
🖹 Form		1 D Edit Form Created 05/06/2024	Clas Titl	e		•	•	Class Description Title class is a container element that contains all sub elements related to title information				
				Class e variation		٣		Section Name * Title - Title variation				
				Property* title v			,					
			Fields In Section							^		
				Field		Label		Туре	Mandatory	Repeatable		
			::	1 title		title		Text Box				
				2 part numb	per	part number		Text Box				
				3 Note		note		Text Box				
			•	Add Field								

Save

 \sim

 \sim



Edit or View Record





Quick Edit From Search

All titles 🔹 Keyw	vords 👻		< Edit Metadata for Percy Jacks	son & the Olympians the ultimate guide	Cancel	Save
J		< 🎓 All Titles in Institution (1 - 2 o	Summary	Description Form Description		
Q Find specific facet		C 🗌 Sort by: Rank 🔹 💷 Second	Title	Title - Title variation		^
Material Type Book (2) Resource Type Resol. Rhysical (2)	^	1 Percy Jackson & the Olyn Book (Book - Physical) By Knight, M. J. (New York Di Subject Fiction ; Jackson, Pe GreekJuvenile fiction. and d		Title * (1) Percy Jackson & the Olympians the ultimate guide partNumber (1)		🚰 URI
 Book - Physical (2) Language English (2) 	^	Series Percy Jackson & the C Modification Date 25/07/202 Edition 1st ed.		Enter Text Here Note Note		🚰 URI
Publication Year 2009 (1) Collections	^	2 D Peter Pan story Book (Book - Physica		Add Field		
Art Collection (1)		By Wallace, Oliver, (n.p. Subject Peter Pan (Fictitious Modification Date 25/07/202		Contribution		^
				Agent* Lookups Select a value		🚰 URI

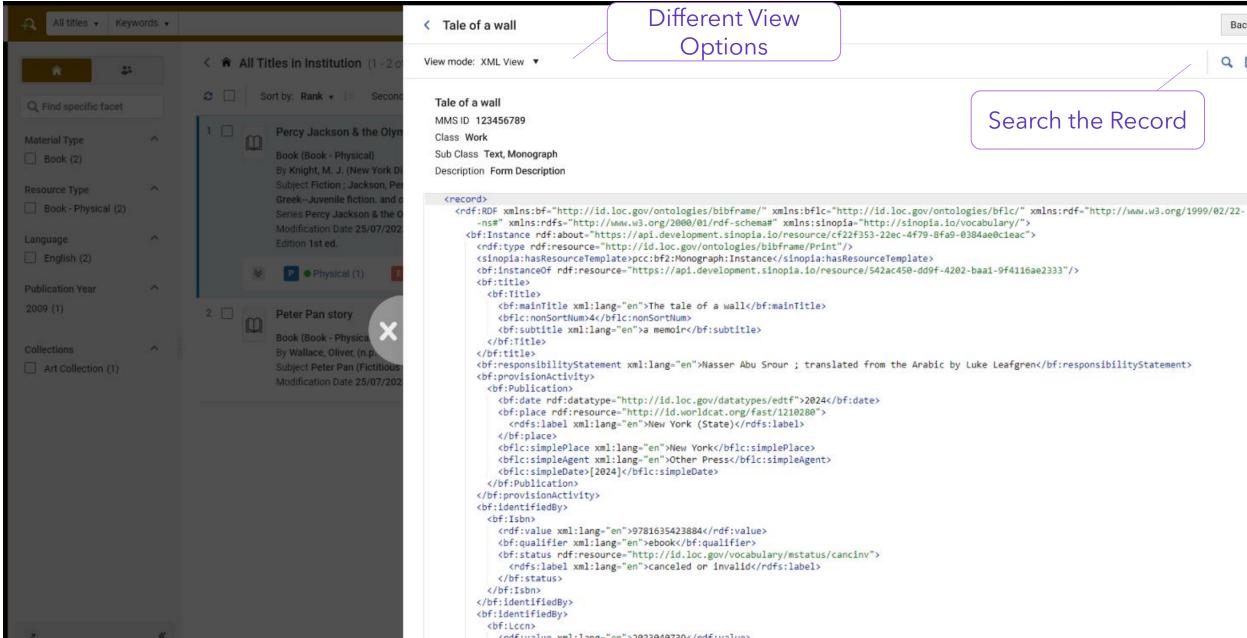
Recent

John McCall (John Cadwalader), 1793-1846 John O'Connor (John Bonaventure), 1872-John O'Beirne (John Joseph Regis), 1887-John O'Dwyer (John Joseph), 1925Ð

🚰 URI

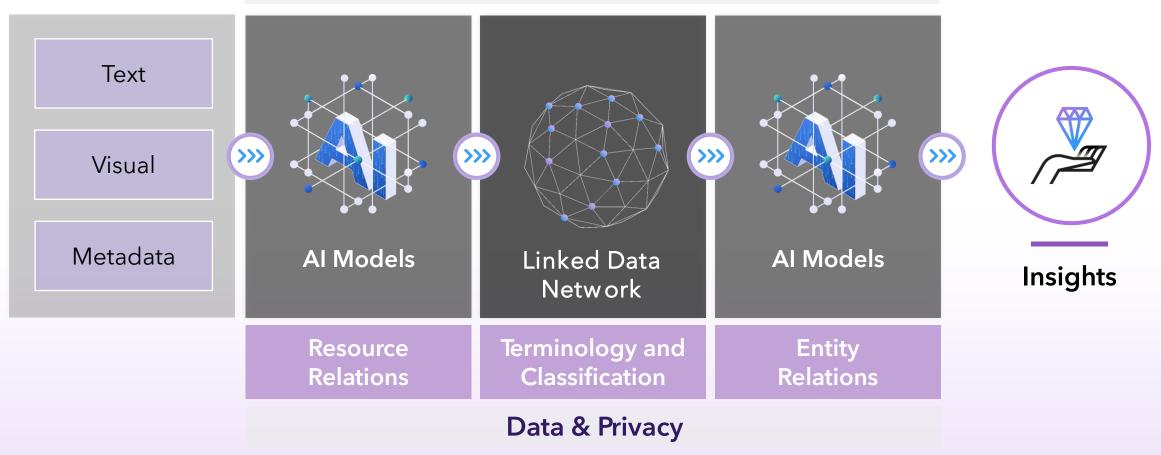
~

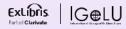
Record View



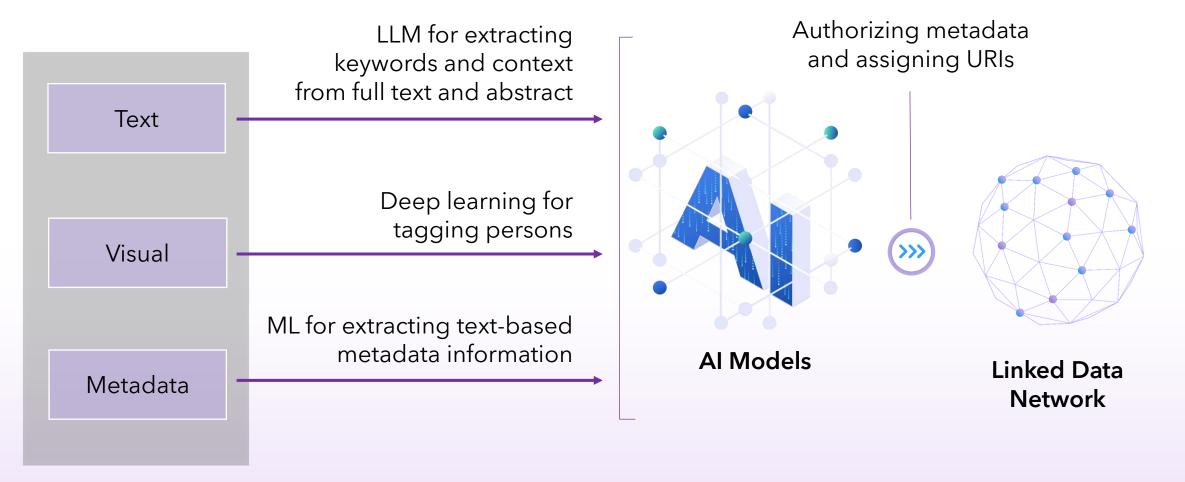
Linked Open Data and Al Future



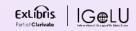




Al for Extracting Information



... With the Form Editor





Your Voice Matters!

Register now for our Voice of Customer survey launching October 22nd



Don't miss your chance to win a prize at IGeLU 2024 by registering for our survey!





Thank You

itai.veltzman@clarivate.com

adina.marciano@clarivate.com



© 2024 Clarivate

Clarivate and its logo, as well as all other trademarks used herein are trademarks of their respective owners and used under license.