

Jeff Penka
Zepheira
The Library.Link Network



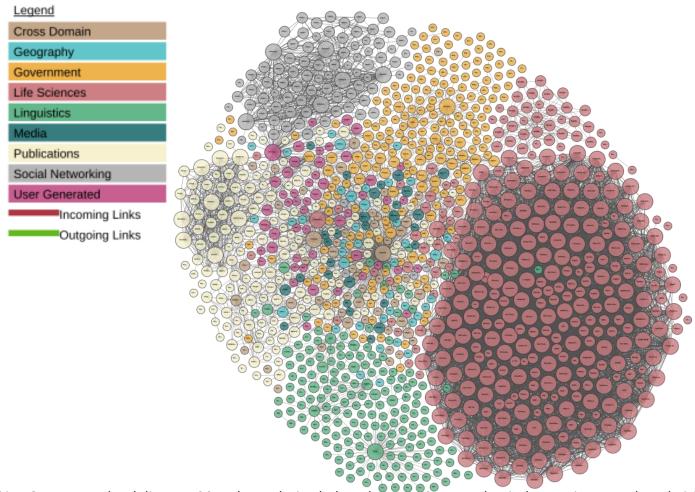
Goals

- Define Linked Data
- 2. Offer a framework for discussion
- 3. Establish practical views of the Web of Data
- 4. Explore how libraries have come together to participate in the Web of Data

Linked Data Is Simply...

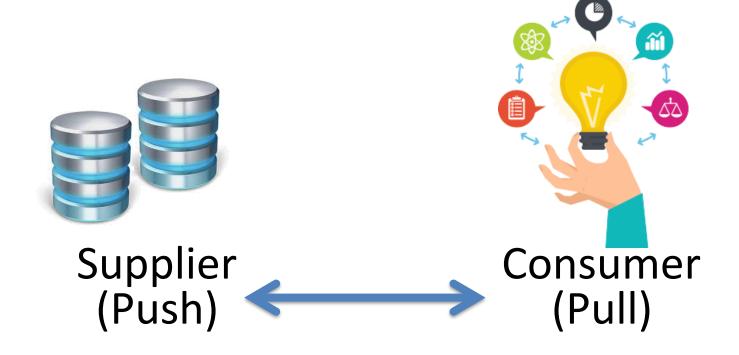
- 1. A Web standard
- 2. Data that is
 - 1. Typed
 - 2. Structured
 - 3. Connected
- 3. Vocabulary based
- 4. Foundational, enabling technology



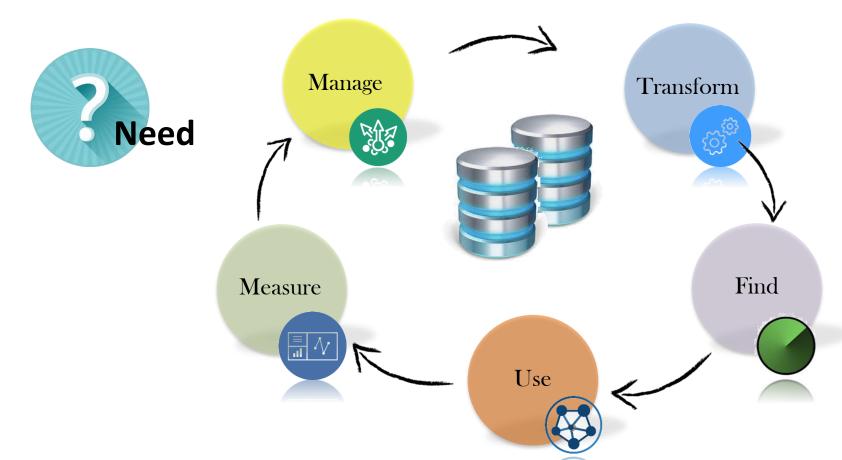


"Linking Open Data cloud diagram 2017, by Andrejs Abele, John P. McCrae, Paul Buitelaar, Anja Jentzsch and Richard Cyganiak. http://lod-cloud.net/"

Motivation



Lifecycle Framework



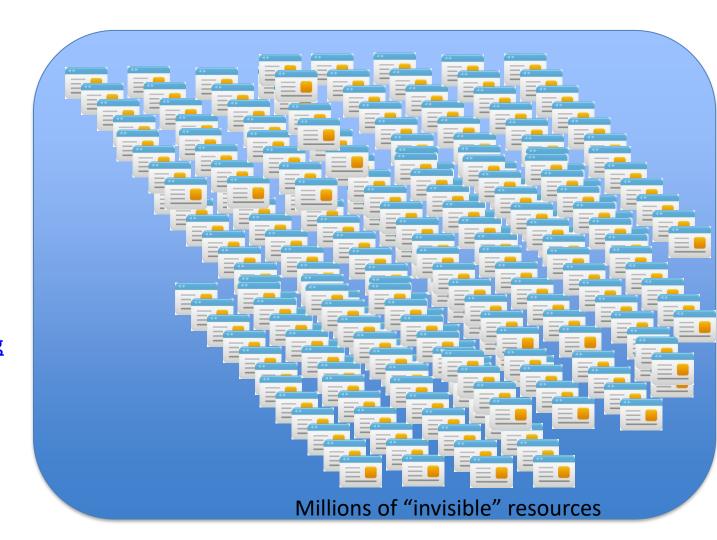
Linked Data and the Library.Link Network bring library data to life

- Connect with your communities
 - On the Web
 - Through Outreach
 - Via existing Web & Discovery Environments
- Gain insights from your data





http://www.library.org





I'm looking for resources and research on juvenile diabetes I can read while traveling later this week?

Let me check on some options, but first.. Format Location Timeframe

Personalization/ Relevance

Authority

What would it take for Libraries to be part of the conversation?

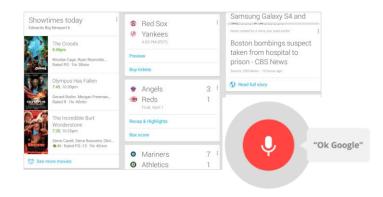
Content Availability

Access Control

The Web of Data Needs Quality, Actionable Content

















The Web is better when libraries participate









"We need to see them and their content."

Perspectives from "The Valley" Libraries play a key role in...



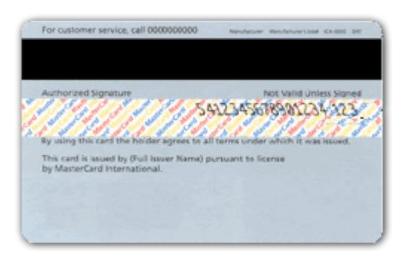
There is a significant gap between what machines and humans see on the Web





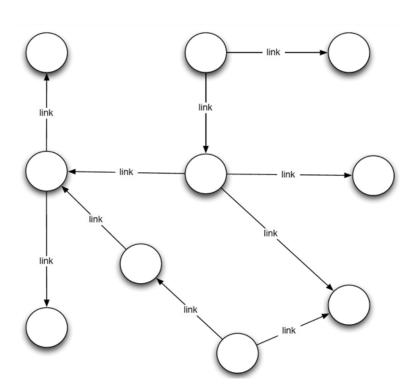


Human Friendly

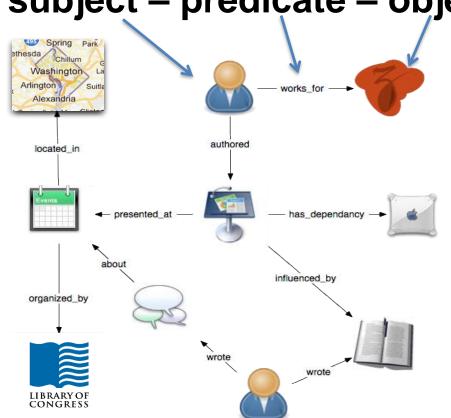


Machine Optimized

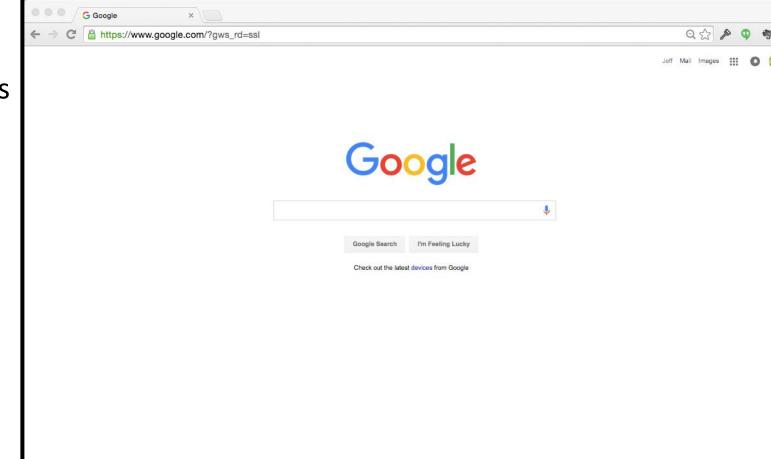
The simple links of the original Web



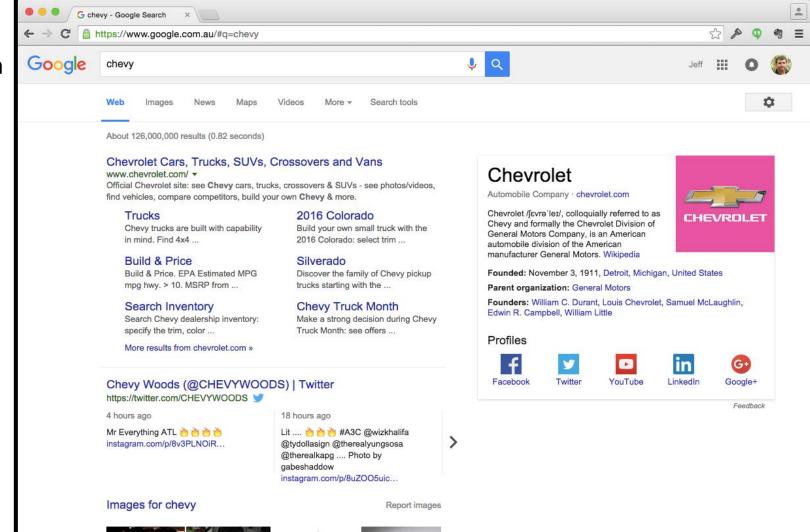
Are becoming structured linked data subject – prediçate – object



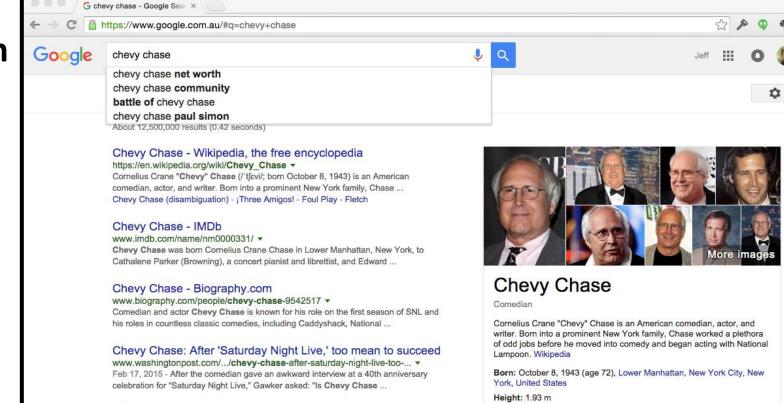
The Web understands **Typed Data**



Organization



Person



Chevy Chase sweats profusely in bumbling interview for ...

www.dailymail.co.uk/.../What-s-happened-Chevy-Chase-Former-Saturda... ▼
Feb 16, 2015 - What's happened to Chevy Chase? Former Saturday Night Live star, 71, sweats profusely in bumbling interview to celebrate 40th anniversary ...

Chevy Chase, 71, shows off a wider tummy in NYC - Daily Mail www.dailymail.co.uk/.../Chevy-Chase-71-shows-wider-tummy-lights-cig... ▼
Jan 16, 2015 - Not his best look: Chevy Chase showed off a large stomach and chubby face as he headed into the Today Show in New York City on Friday ...

Spouse: Jayni Chase (m. 1982), Jacqueline Carlin (m. 1976-1980),

Suzanne Chase (m. 1973-1976)

TV shows: Community, Saturday Night Live, more

Children: Caley Leigh Chase, Bryan Perkins, Cydney Cathalene Chase,

Emily Evelyn Chase

Movies





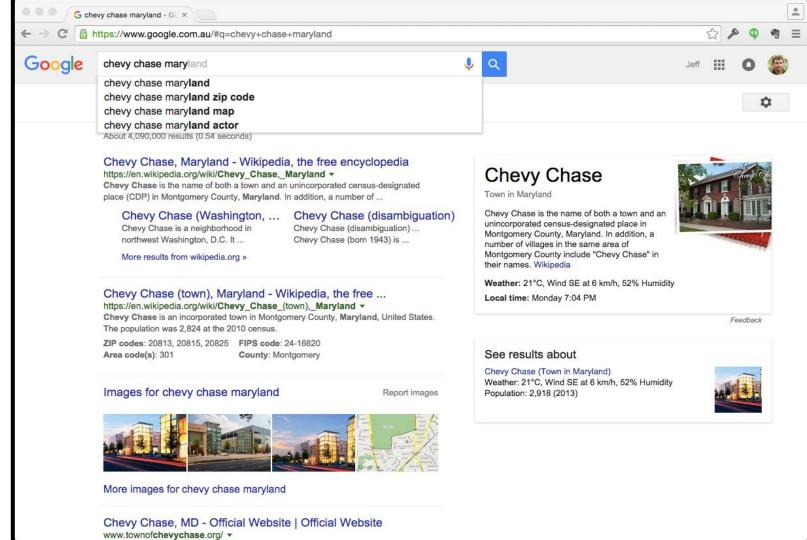








Place



Behaving Differently

The Next Generation of Search moves beyond "results" to Answers, Geography, Personalization, and Relationships



albert eins

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About 51,20

Albert Einstein - Wikiped

https://en.wikipedia.org/wiki/Alb Albert Einstein was a German-bo one of the two pillars of modern ph Hans Albert Einstein · Mass-energ

Albert Einstein - Biograph

www.nobelprize.org/nobel prize Albert Einstein was born at Ulm. to Italy and Albert continued his ed

Albert Einstein - Physicis

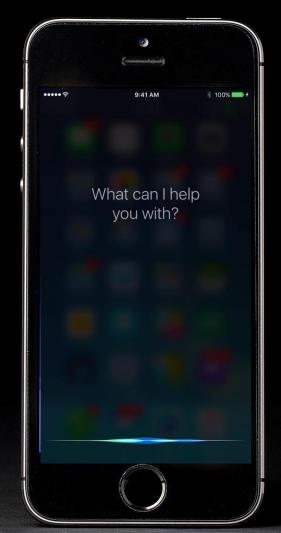
www.biography.com/people/albi Nov 29, 2016 - Biography.com offe physicist of the 20th century who o

Albert Einstein - Facts &

www.history.com/topics/albert-e Find out more about the history of historical features and more. Get a

9 Things You May Not Ki

www.history.com/news/history... Oct 26, 2015 - The ambitious Albe controversial idea, the General Th





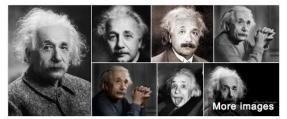








Settings Tools SafeSearch on



Albert Einstein



Theoretical Physicist

Albert Einstein was a German-born theoretical physicist. He developed the general theory of relativity, one of the two pillars of modern physics. Einstein's work is also known for its influence on the philosophy of science. Wikipedia

Born: March 14, 1879, Ulm, Germany Died: April 18, 1955, Princeton, NJ

Education: University of Zurich (1905), More

Spouse: Elsa Einstein (m. 1919-1936), Mileva Marić (m. 1903-1919)

Children: Eduard Einstein, Lieserl Einstein, Hans Albert Einstein

Quotes View 7+ more

Imagination is more important than knowledge.

The important thing is not to stop questioning. Curiosity has its own reason for existing.

Anyone who has never made a mistake has never tried anything new.

People also search for

View 15+ more



albert einstein









SafeSearch on

All Images Books News Videos More Settings Tools

About 51,200,000 results (0.71 seconds)

Albert Einstein (@AlbertEinstein) · Twitter

https://twitter.com/AlbertEinstein

Here's a great @60Minutes piece by @BillWhitakerCBS on the search for the 9th planet in our solar system. www.cbsnews.com/news/60

3 hours ago · Twitter

When your theories are the basis of iconic superheroes' super powers. #SignsYoureASuperhero

3 hours ago · Twitter

Ahem...not just ANY theory, @espn. It was Einstein's theory of special relativity. Congrats to Clemson! #ALLII twitter.com/espn/status...

6 hours ago · Twitter

Albert Einstein - Physicist, Scientist - Biography.com

www.biography.com/people/albert-einstein-9285408 v

Nov 29, 2016 - Biography.com offers a glimpse into the life of Albert Einstein, the most influential physicist of the 20th century who developed the theory of ...

Albert Einstein - Facts & Summary - HISTORY.com

www.history.com/topics/albert-einstein *

Find out more about the history of Albert Einstein, including videos, interesting articles, pictures, historical features and more. Get all the facts on HISTORY.com.

9 Things You May Not Know About Albert Einstein - History Lists

www.history.com/news/history.../9-things-you-may-not-know-about-albert-einstein ▼ Oct 26, 2015 - The ambitious Albert Einstein challenges centuries of scientific thought with his new controversial idea, the General Theory of Relativity.

Top stories



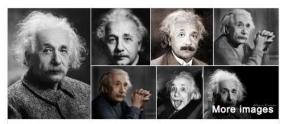
Genius Trailer: Geoffrey Rush Is Albert Einstein



Geoffrey Rush is Albert Einstein in new 'Genius' TV series



Geoffrey Rush Plays Albert Einstein in 'Genius' Trailer



Albert Einstein



Theoretical Physicist

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Education: University of Zurich (1905), More

Spouse: Elsa Einstein (m. 1919–1936), Mileva Marić (m. 1903–1919)

Children: Eduard Einstein, Lieserl Einstein, Hans Albert Einstein

Quotes View 7+ more

Imagination is more important than knowledge.

The important thing is not to stop questioning. Curiosity has its own reason for existing.

Anyone who has never made a mistake has never tried anything new.

People also search for

View 15+ more

Transforming Traditional Library Data into Linked Data



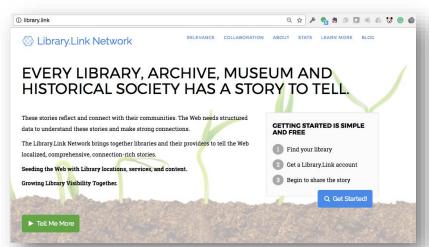
Visibility Lifecycle

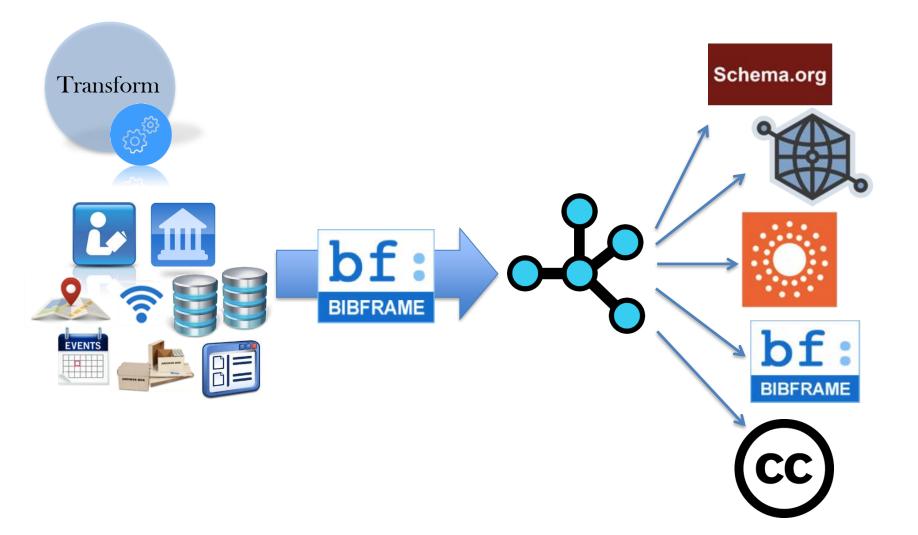


Library.Link Network Solutions

- Catalog Publishing
 - Innovative Linked Data
 - SirsiDynix BLUEcloud Visibility
 - EBSCO Linked Library Service
- Data Enrichment
 - NoveList Select for Linked Data

- Resource Sharing Publishing
 - Innovative Linked Data (INNReach)
- Archives and Special Collections Publishing
 - Atlas Web Visibility Service







http://www.library.org 1000-2000 pages

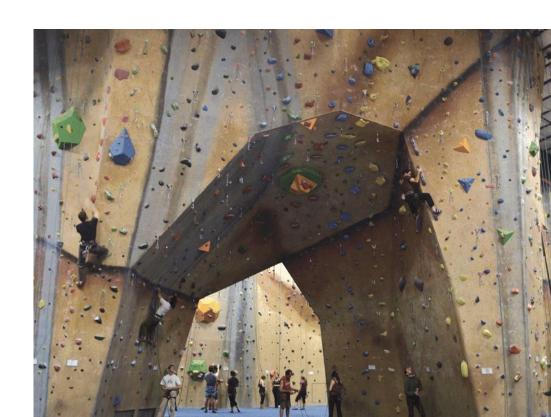


1,000,000-3,000,000 resources



Expanding Opportunities for Connections and Relationships

- Items
- People
- Concepts













+24 more

Creator of







+100 more

Conservator of





Narrator of







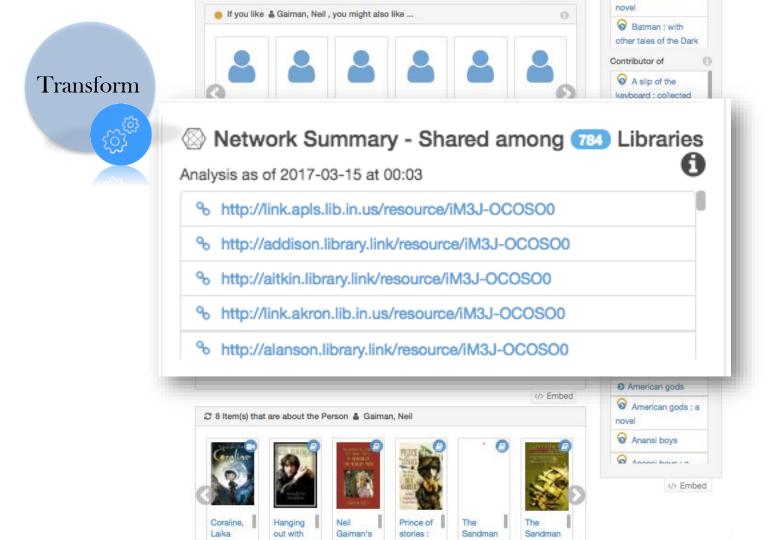
Writer of Introduction of



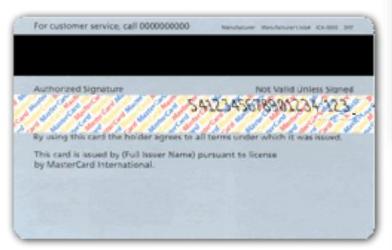
All connections link to library resources

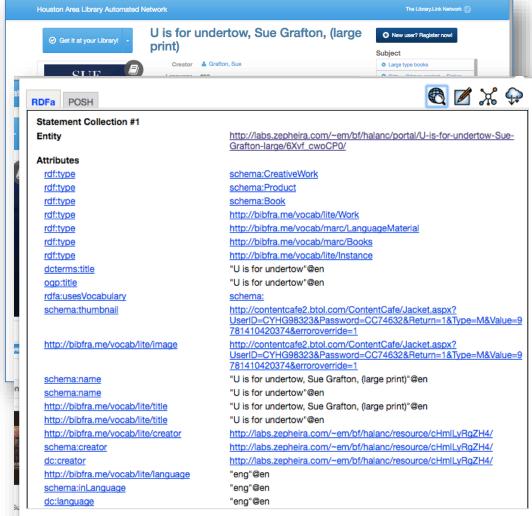


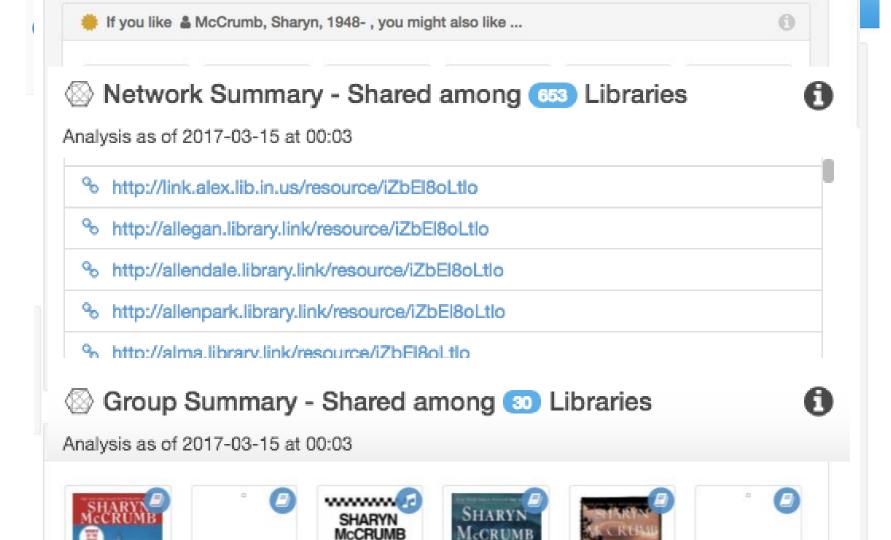
Focus of Gaimen, Neil | Handbooks | Characters ...













Search Index

Impressions

Clicks desire

awareness

..... interest

Search in: Any Field

1 - 1 of 1

1 - 1 of 1

Limit to: All formats

More search options

Snorlax takes a stand by Heller, Sarah E.

Current requests: 0

Available copies: 1 (of 1)

action

а

all the Pokemon food from the Orange Islands.

Clicks

Snorlax takes a stand - Worthington Public Library link.worthingtonlibraries.org/portal/Snorlax-takes-a-stand...by..../H "Snorlax is one of Ash's most stubborn Pokemon. All it does is sleep! Th

> Snorlax takes a stand, adapted by New user/ Get a Ca S.E. Heller Subject Creator & Heller, Sarah E Animals Mathical - Invente does is sleep! Then Team Rocket tries to steal all the stop them. But can Ash get his portly Pokemon to wake Language eng Related Member of 🗗 In Series III Pokémon junior, #9

Library Website/ Discovery

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Find books, movies, music and more... My account -Home > Borrow > Find books, movies & music Catalog

Check availability

More Information

& Reserve

Save to list

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103

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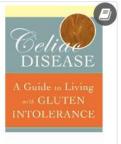
The gluten connection: how gluter swan.library.link/portal/The-gluten-connect Jan 18, 2007 - Title remainder: how gluten sen can do to take control ... Broadview Public Libra

Unlocking the mystery of wheat an swan.library.link/portal/Unlocking-the-myste ... autoimmune diseases. Learn how to impleme wellness. ... Unlocking the mystery of wheat and Grove Public Library, 1050 Curtiss ...

Baic, Sue. Living gluten-free for du swanlib.swan.wa.gov.au/.../FullBB.csp?... Libraries Home ... Summary, If you have a whe want to enjoy the benefits of a diet free from wh

Celiac disease - Salt Lake County
link.slcolibrary.org/portal/Celiac-disease--aCeliac disease : a guide to living with gluten in

Get it at your Library! •



Celiac disease: a guide to living with gluten intolerance, Sylvia Llewelyn Bower with Mary Kay Sharrett, Steve Plogsted

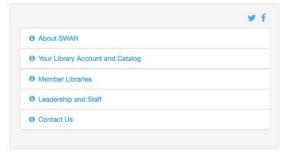




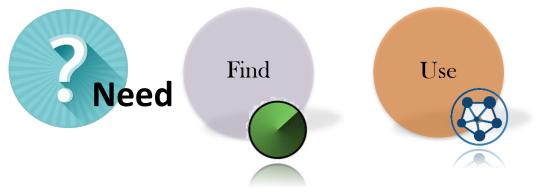
Library Locations



Library Links



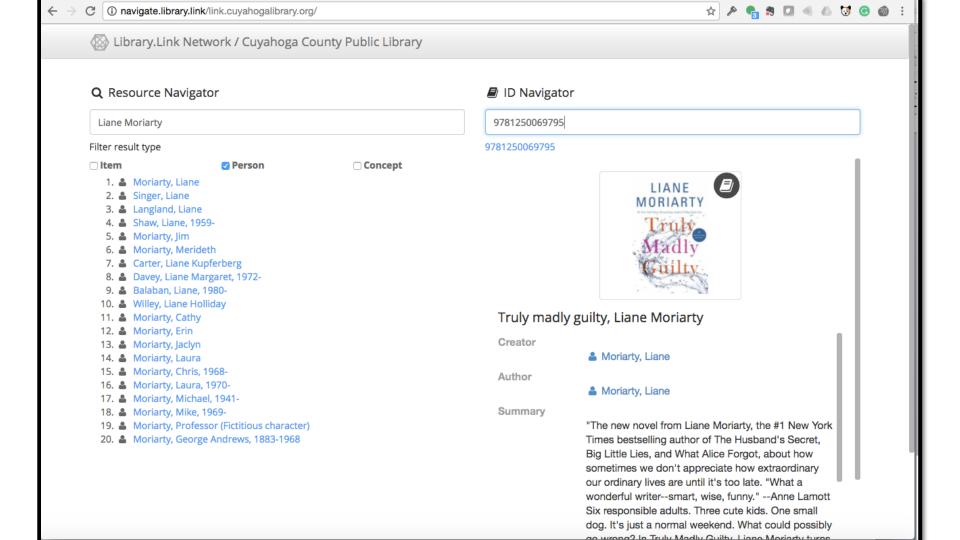
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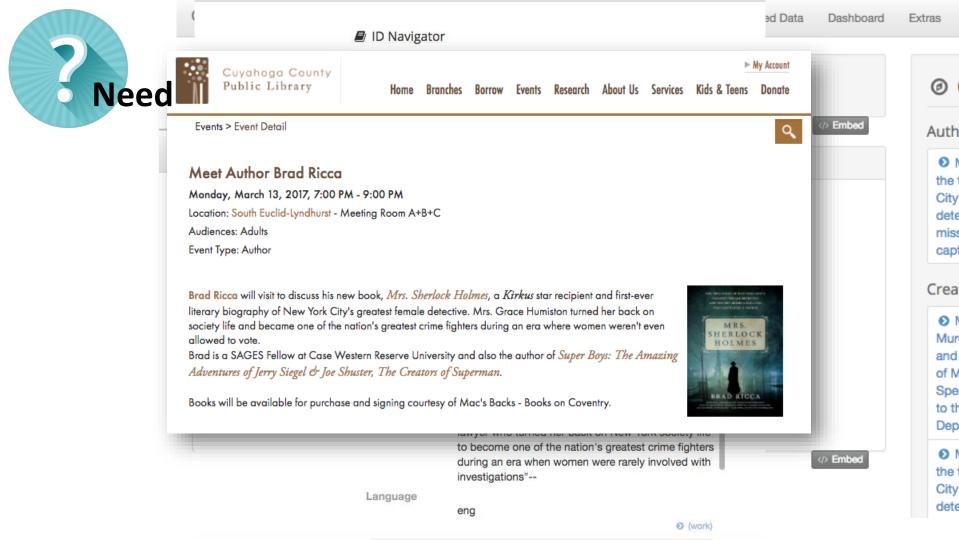


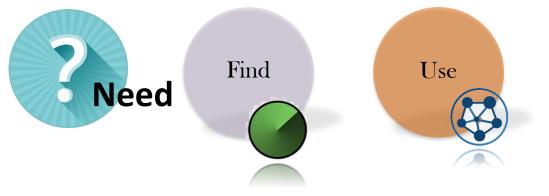
How can I use my data to:

- Serve my communities
- Teach the Web and reach new communities

DATA NAVIGATOR AND STAFF TOOLS





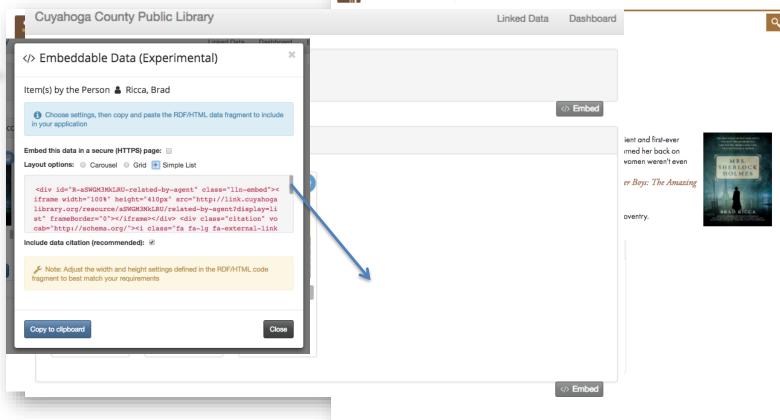


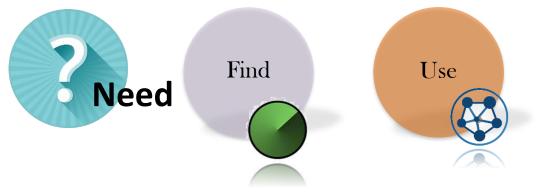
Delivering Current, Connected, Contextual Content Save Time, Extend Reach

LIVING DATA

Home Branches Borrow Events Research About Us Services Kids & Teens Donate







Contemporary Context
Save time, reach more, deliver context, guide decisions

LIVING LISTS

ary.Link Network



Every d

W. BRI

The Mistress: A Novel, Danielle Steel

Borrow it 🔻 Borrow it -



A dog's purpose, W. Bruce

Borrow it -



Dog's purpose A dog's purpose, W.



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O Service



Below the belt Below the belt, Stuart





Below the belt, Stuart Woods

Borrow it -

ON THE

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A man called Ove, a novel by Fredrik

Borrow it -

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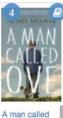
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MISTRESS

The mistress:

Danielle Steel

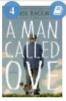
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A man called Ove: a novel, Fredrik

Borrow it -



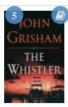
Borrow it -



Borrow it -

A man called Ove BOOKABLE

Borrow it -



The Whistler, John Grisham

Borrow it -



The whistler: a novel, John Grisham

Borrow it -



AULA HAWKINS Girl on the Train | The girl on the train,

TRAIN

Borrow it -



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Distant shores.



Distant shores.



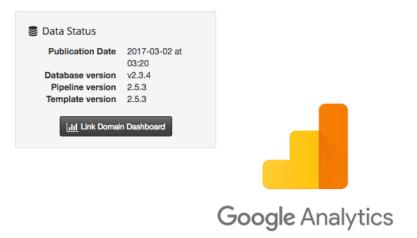
Distant shores

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INSIGHTS, IMPACT & ACTION

- Data Quality & Transformation
- Linking
- Web Traffic
- Data Usage Logs



NoveList Enrichment

Publication

- Summary / Settings
- Details / History

Library Catalog

- ▶ Resource Summary
- ► Catalog Resources

NoveList Enrichment

- ► Resource Summary
- ► Enriched Resources
- ► Additional Resources

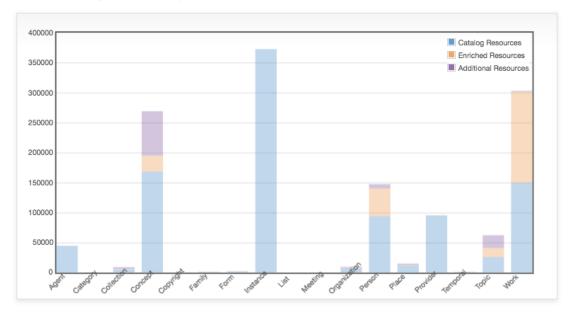
OverDrive Enrichment

- ▶ Resource Summary
- ► Enriched Resources
- Additional Resources

LivingLists Enrichment

- ▶ Resource Summary
- ► Enriched Resources
- Additional Resources

Enriched Library Resource Graph



Catalog Resources Enriched by NoveList

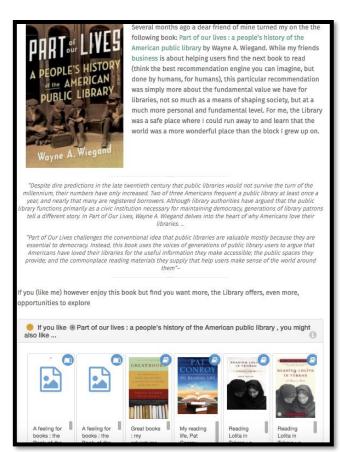
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Grand Total	30	62	55		19



The Library.Link Network Technical Tools

- Democratizing library data access
- Supporting staff needs
- Reaching existing & new communities
- API-like functionality, with no developer required
- Additional Technical APIs



Participation

- Approximately <u>2000 locations/branches</u> and growing
- Over 1000 unique library system domains connected to the Library.Link Network Q1 2017
- State wide, consortia, and National Library engagement and adoption
- Early impact indicators:
 - Over 20 million times in the last quarter libraries on the network were visible in Google and approximately 600,000 times users engaged the library content

Partnerships

- Support for all major Local Systems and Discovery Environments
- Moving Beyond Catalog Data
- Consistent Library and Branch Information
- Over 100 Library Service Providers engaged in discussions about Linked Data and the Library.Link Network

Weaving the best of libraries and the Web together

- Provide a non-destructive, library-centric view
- It's not about gaming a system
- It's not about optimizing to any one service
- It's about libraries speaking <u>together</u> in a way the Web understands
- Leveraging the power of our community

Linked Data and the Library.Link Network bring library data to life

- Connect with your communities
 - On the Web
 - Through Outreach
 - Via existing Web & Discovery Environments
- Gain insights from your data



Jeff Penka
Zepheira
The Library.Link Network

