



New platforms & techniques for strengthening ties between observations and user communities

Earth Science and Information Partners, Bloomington IN

July 27, 2017

Karen Hanson, Data Conservancy



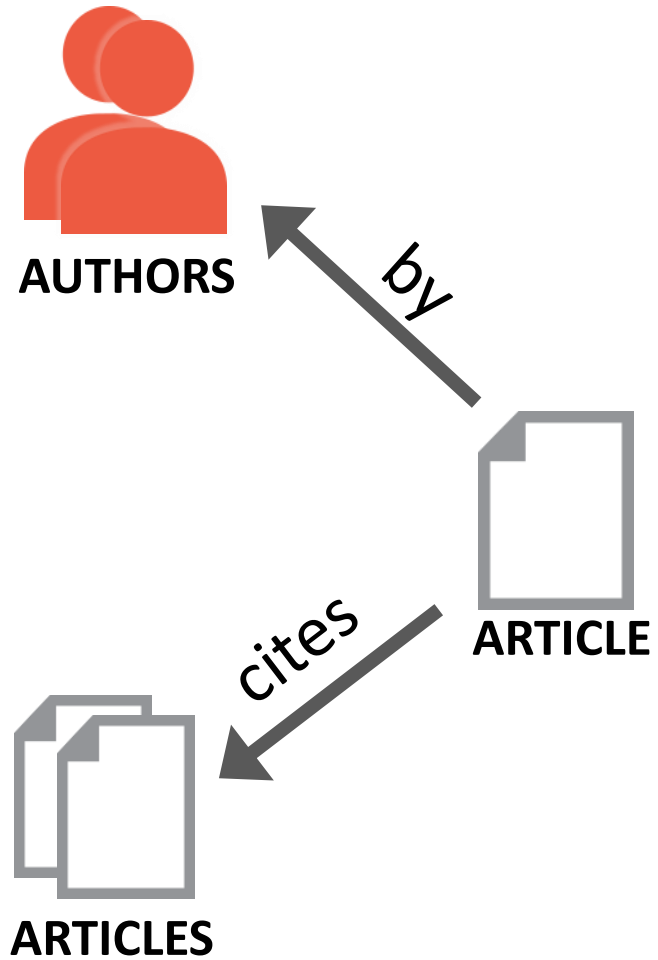
Alfred P. Sloan
FOUNDATION



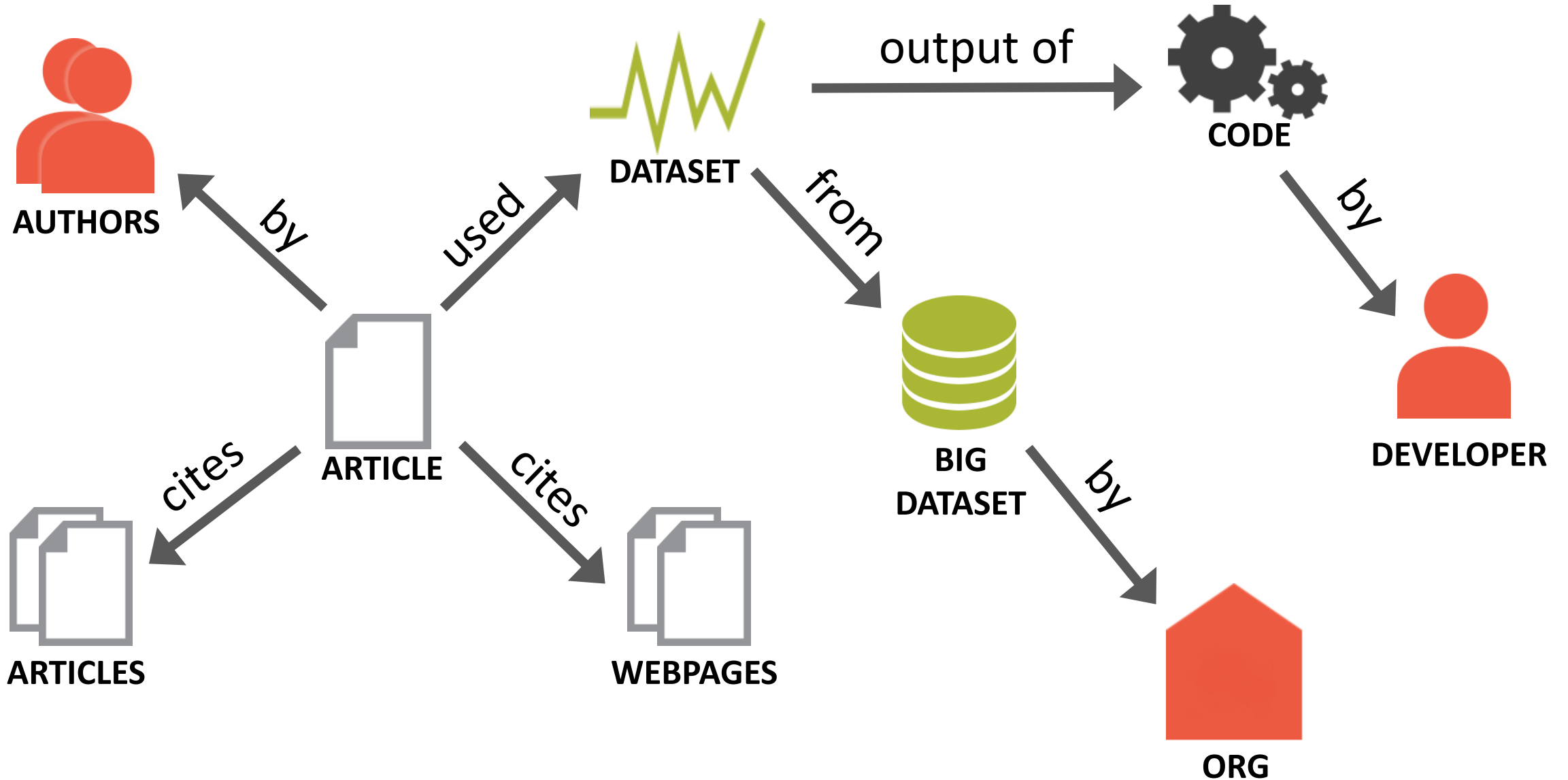
PORTICO



View of a scholarly work



View of a scholarly work



Scholarly works continually evolve



Lavoie, Brian et al. 2014. The Evolving Scholarly Record. Dublin, Ohio: OCLC Research.

<http://www.oclc.org/research/publications/library/2014/oclcresearch-evolving-scholarly-record-2014.pdf>

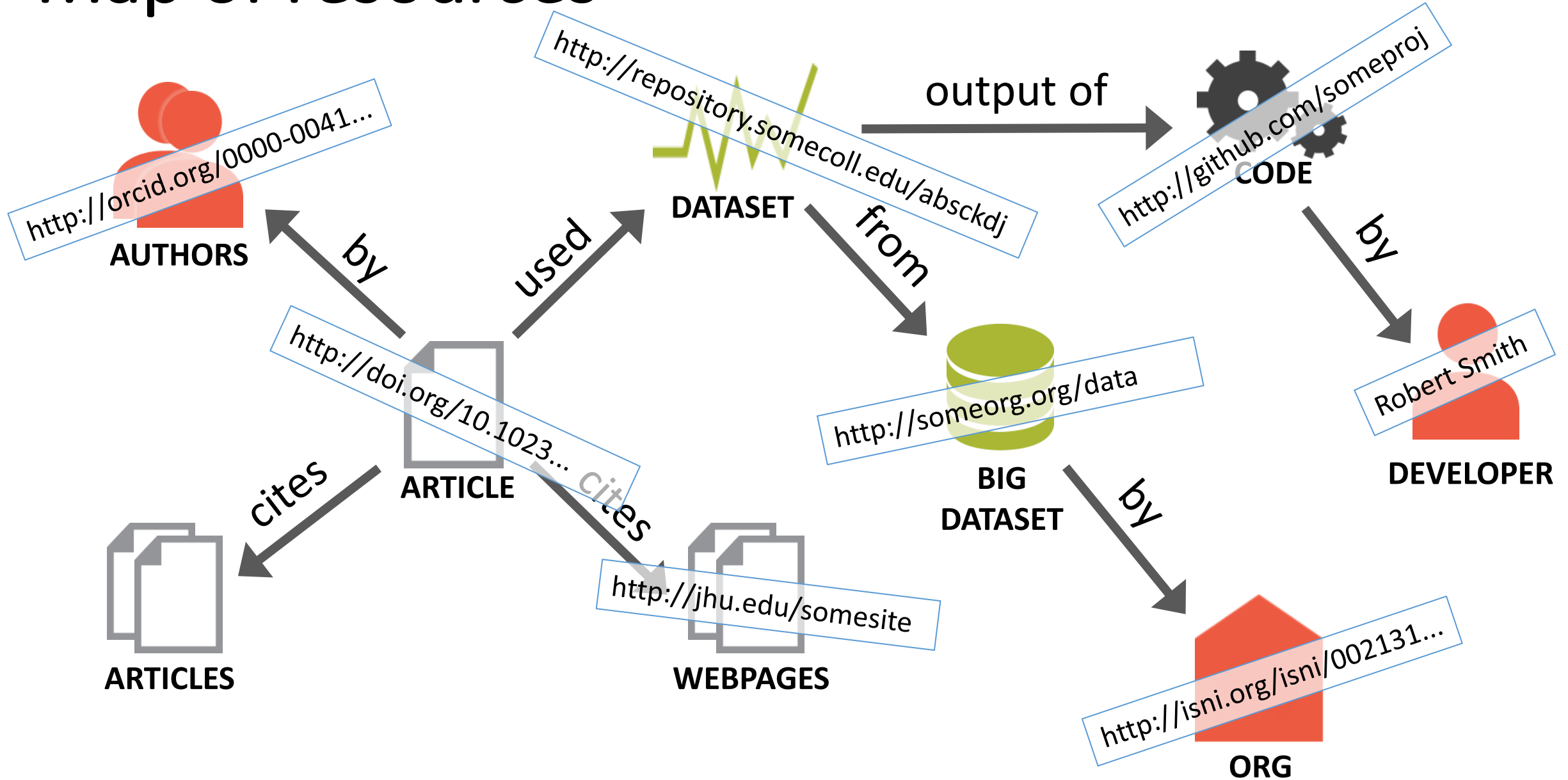
Article citation lists

- [8] Holdren, J.P., 2013. *Increasing access to the results of federally funded scientific research. Memorandum for the heads of executive departments and agencies.* Office of Science and Technology Policy, Executive Office of the President, Washington, DC. Retrieved 20 April 2016 from https://www.whitehouse.gov/sites/default/files/microsites/ostp/ostp_public_access_memo_2013.pdf
- [9] Klein, M., Van de Sompel, H., Sanderson, R., et al. 2014. Scholarly Context Not Found: One in Five Articles Suffers from Reference Rot. *PLoS ONE*, 9, 12. e115253. DOI= <http://doi.org/10.1371/journal.pone.0115253>
- [10] Lavoie, B., Childress, E., Erway, R., Faniel, I., Malpas, C., Schaffner, J. and van der Werf, Titia. 2014. *The Evolving Scholarly Record*. OCLC Research, Dublin, Ohio. Retrieved 20 April 2016 from <http://www.oclc.org/content/dam/research/publications/library/2014/oclcresearch-evolving-scholarly-record-2014.pdf>
- [11] Mayo, C., Hull, E.A. and Vision, T.J. 2015. The location of the citation: changing practices in how publications cite original data in the Dryad Digital Repository. *Zenodo*. DOI= <http://doi.org/10.5281/zenodo.32412>

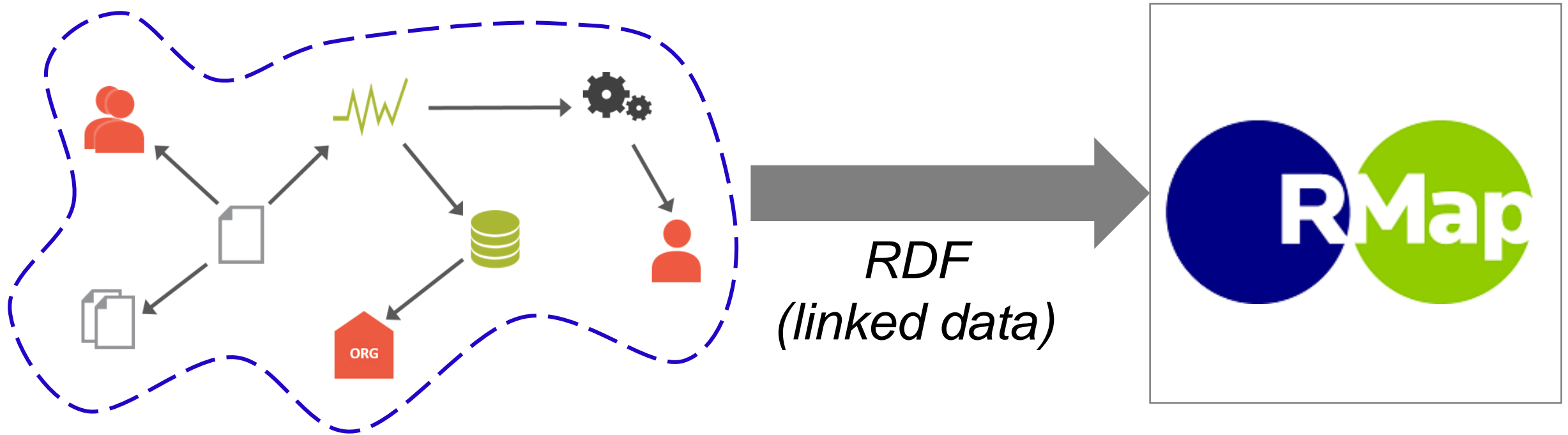


How can we capture detailed
context of a scholarly work?

Map of resources



RMap captures and preserves maps of works

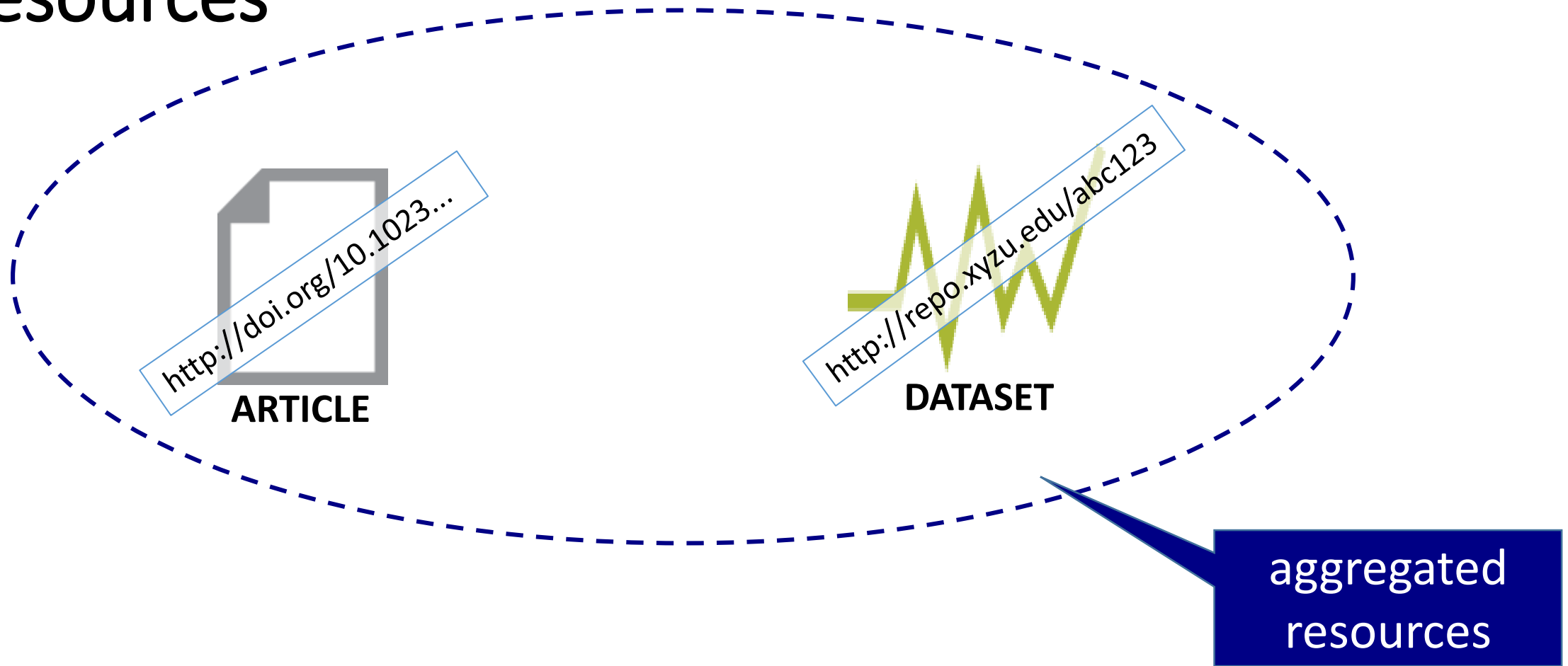


RMap DiSCO
(***D**istributed **S**cholarly **C**ompound **O**bject*)

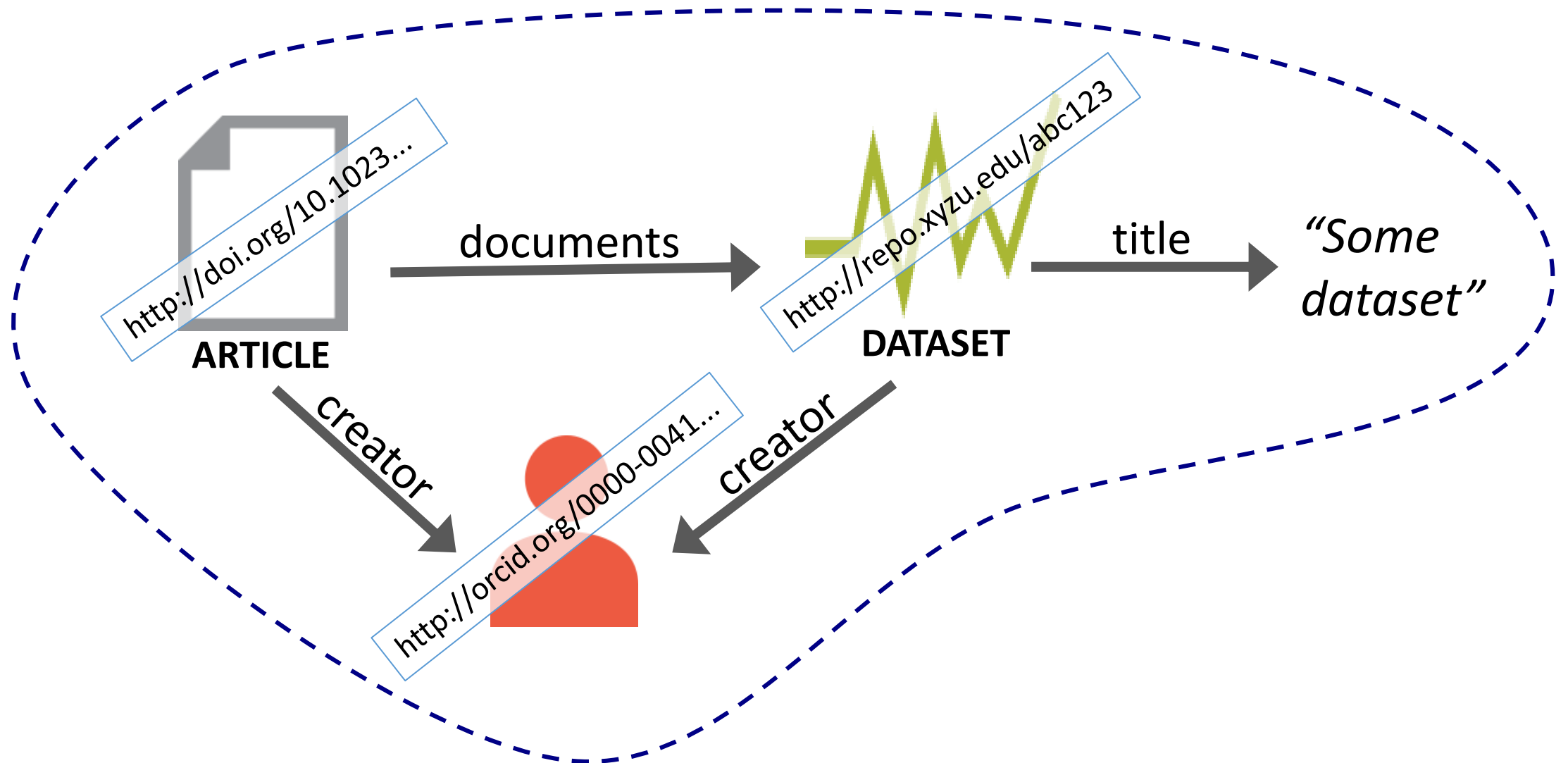


Some features of a DiSCO

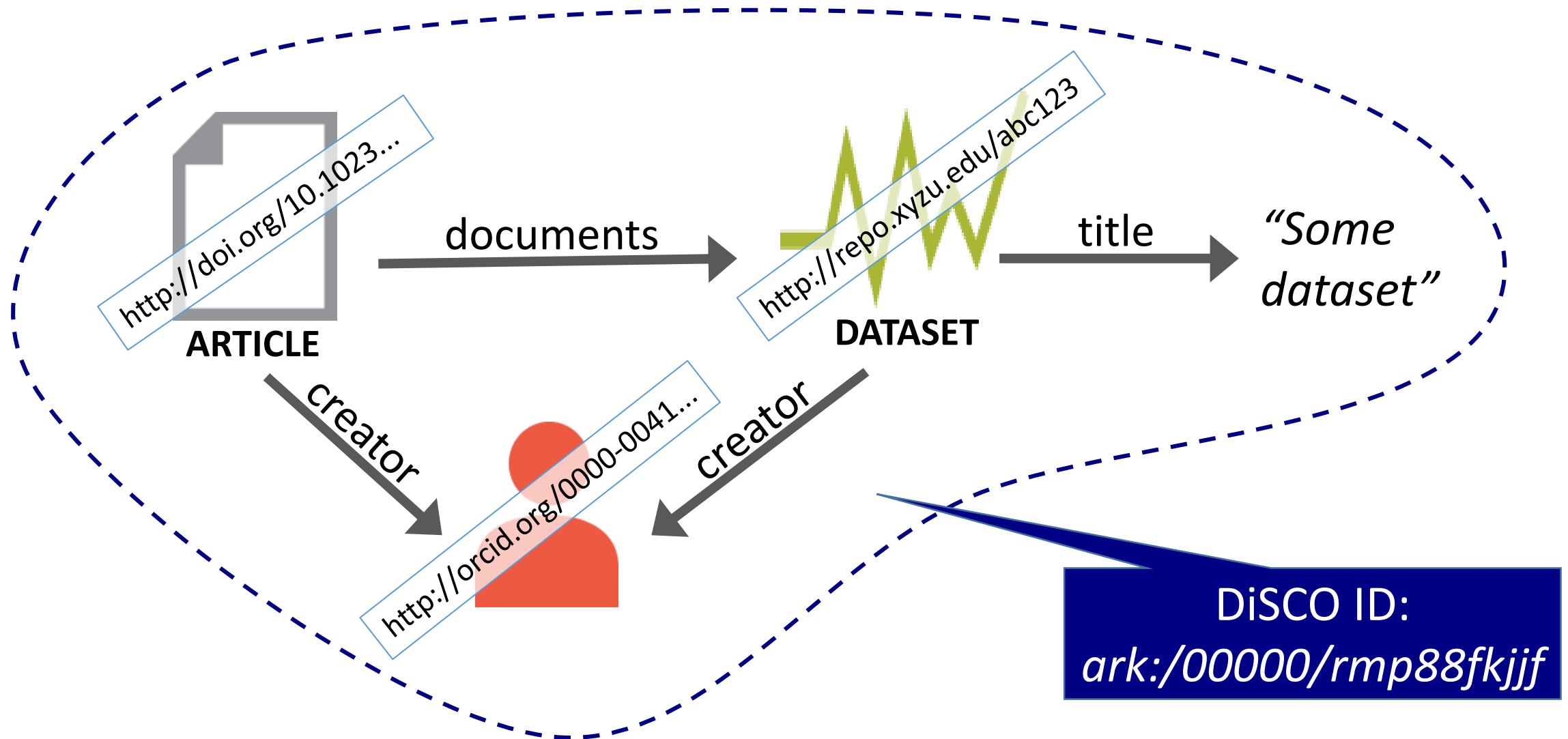
Describes an aggregation of 1 or more scholarly resources



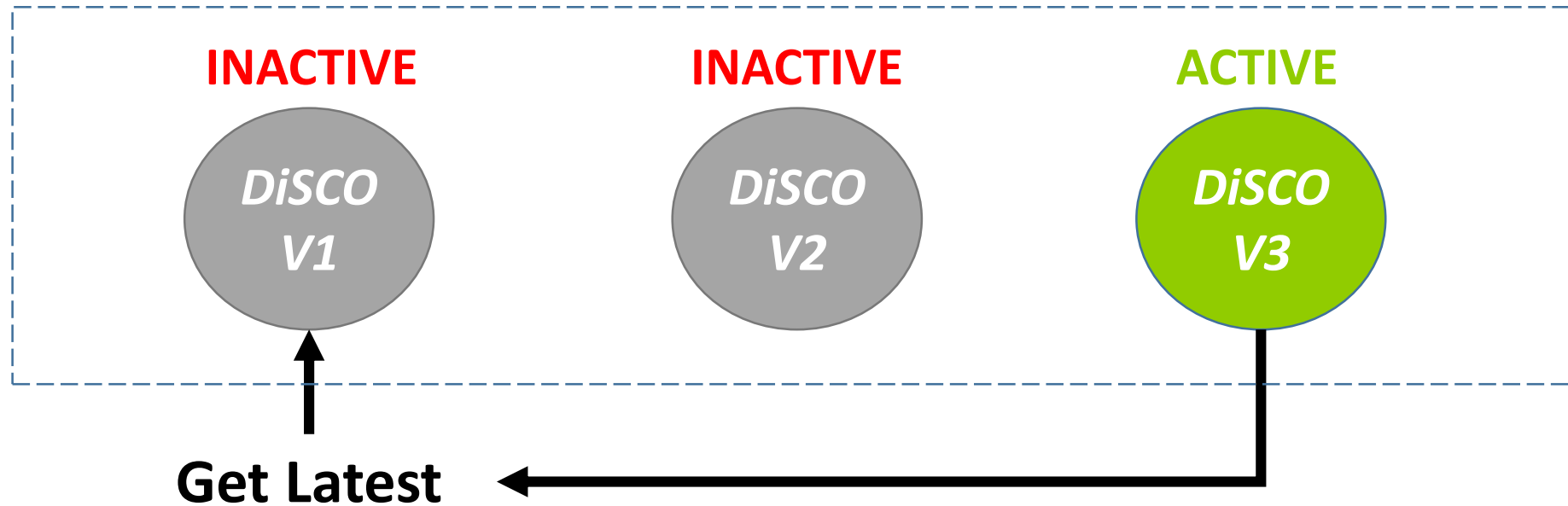
Aggregated resource plus context




DiSCO persistent identifier for retrieval



DiSCOs are version-able, have status



A photograph of walnuts and walnut shells on a wooden surface. In the foreground, two walnut halves are shown, each with a heart-shaped cavity in its shell. To the right, several walnut pieces and shells are scattered. In the background, more whole walnuts and a large, dark, textured object are visible.

RMap in a nutshell

REST API service for managing and retrieving the map of relationships amongst distributed scholarly works.

[Home](#)[Search](#)[Contact](#)[Sign in](#)[graph view](#) | [table view](#)

RMap DiSCO

URI: [rmap:rmp185wk0r](#)

Created by: <http://rmap-project.org/rmap/agents/RMap-OSF-Harvester-0.1>

ACTIVE

Related Events

[rmap:rmp185wjrn](#)

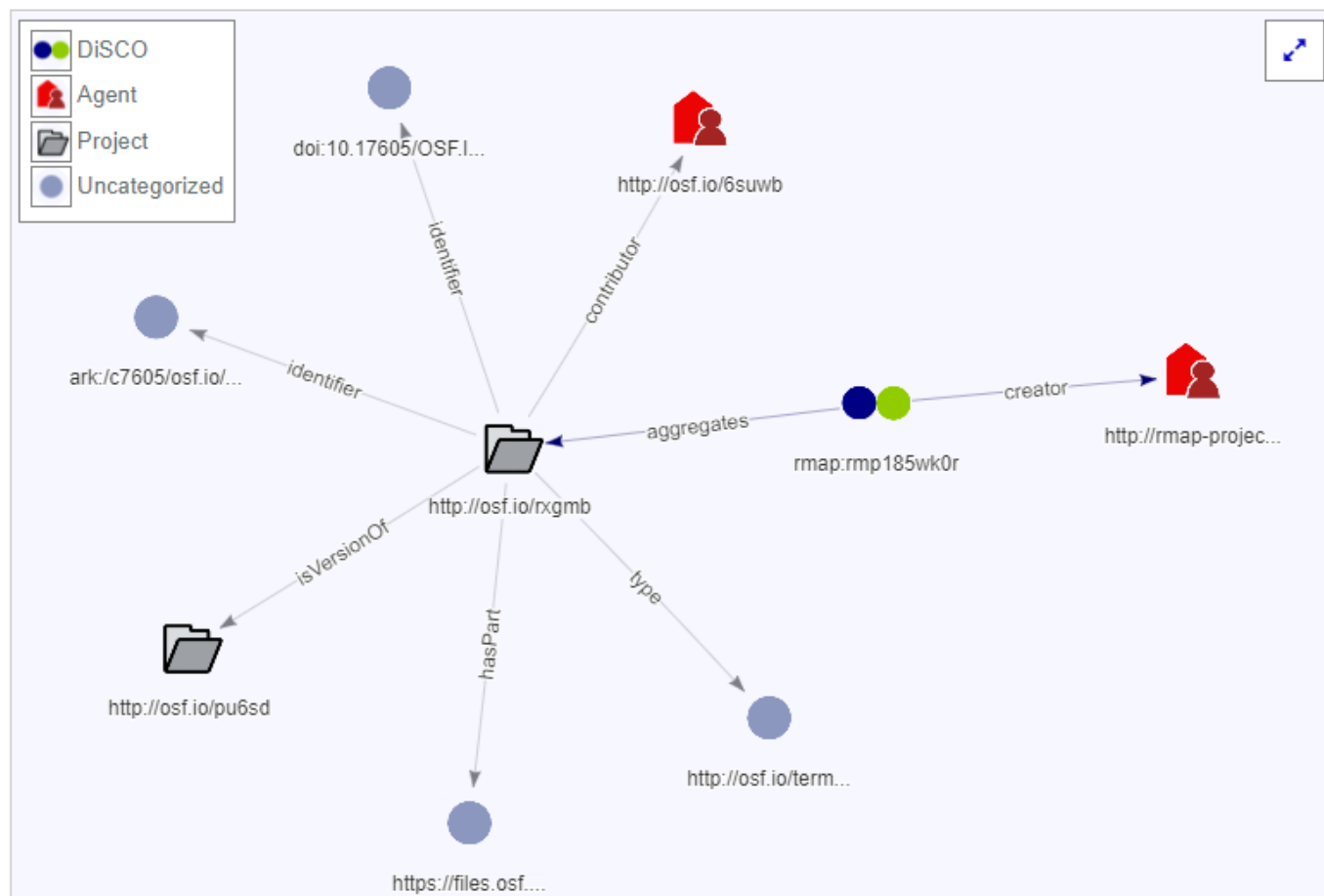
Other DiSCO Versions

Same agent

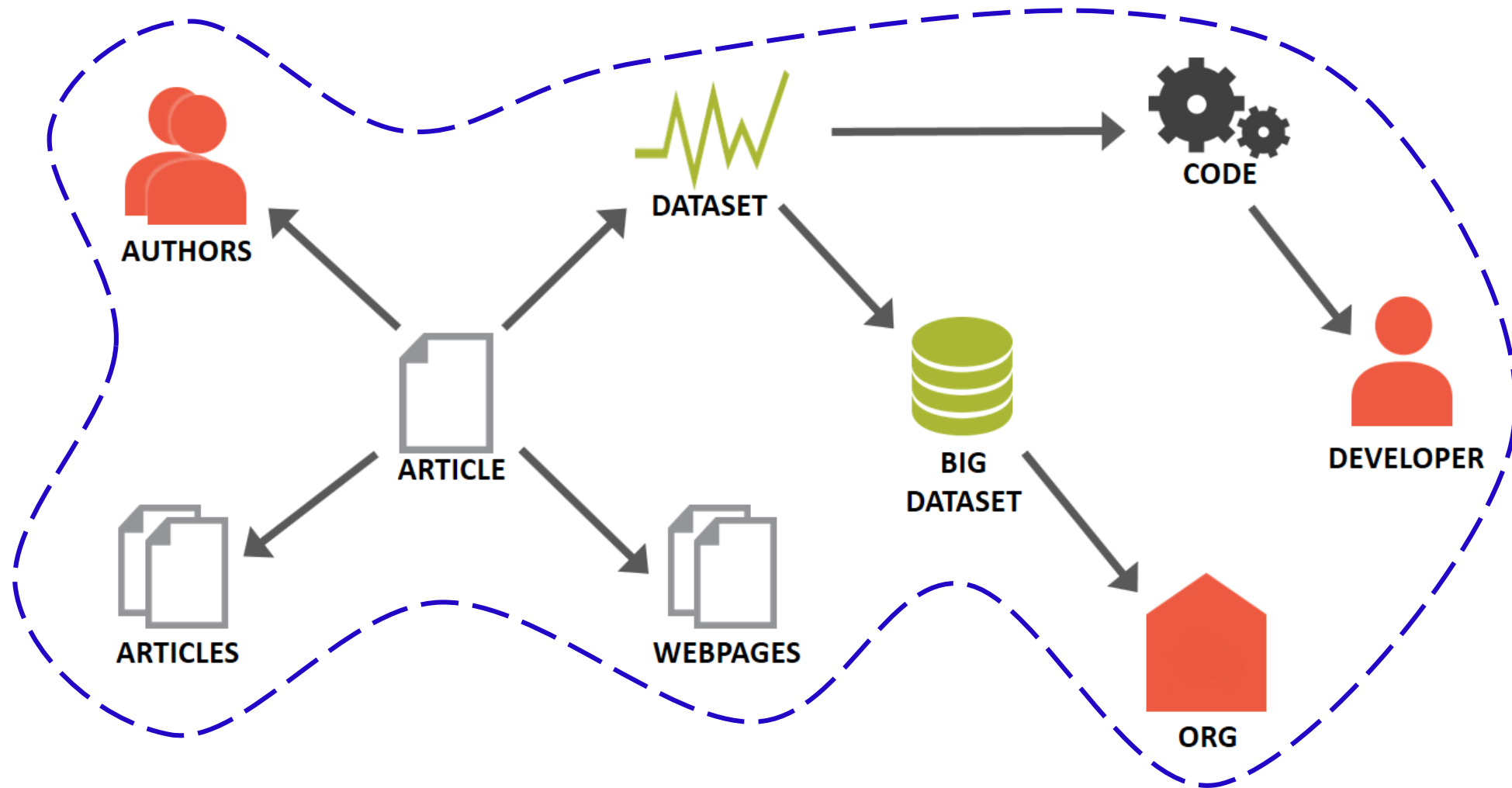
None found

Other agents

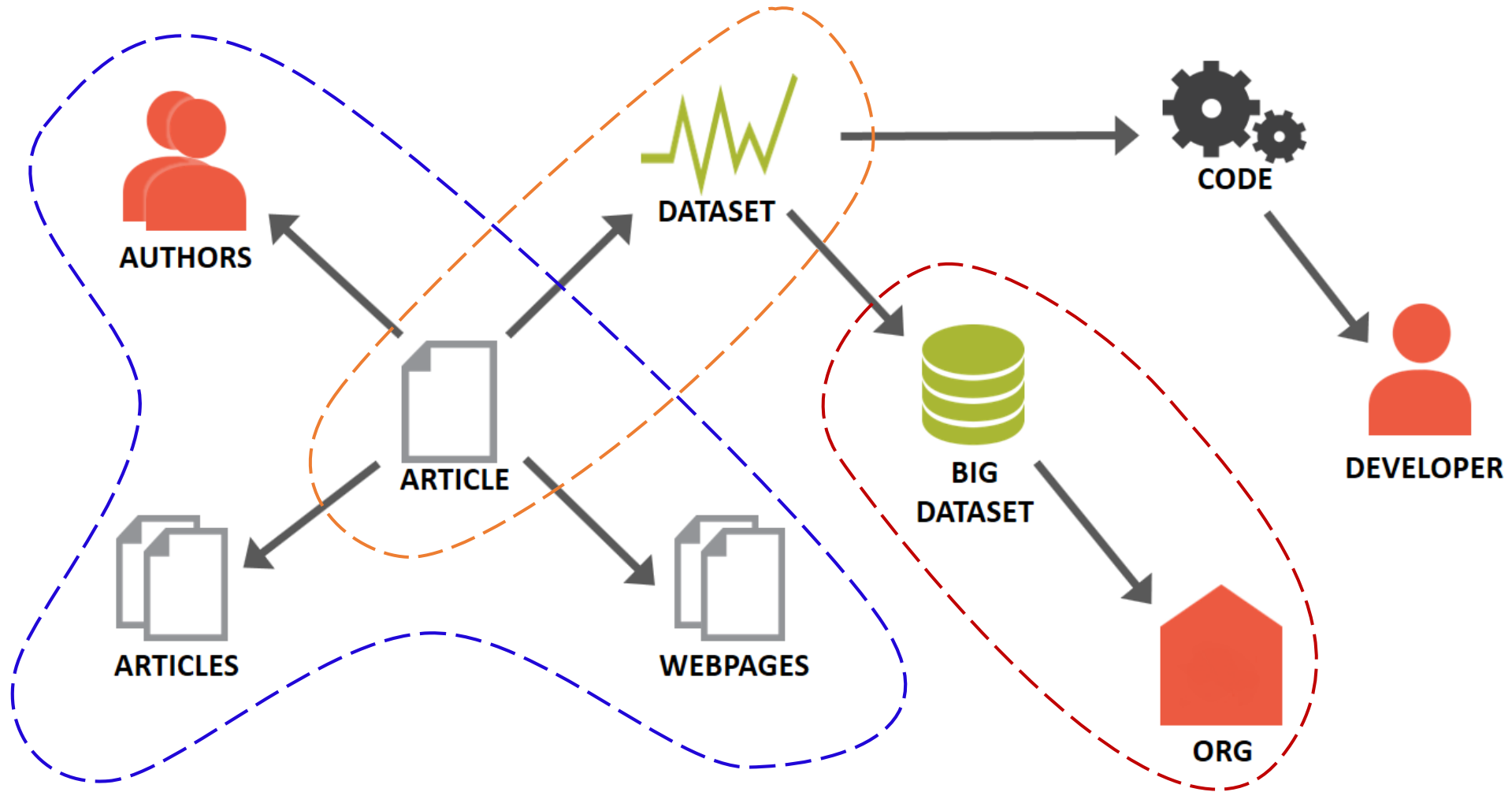
None found



The *ideal* DiSCO

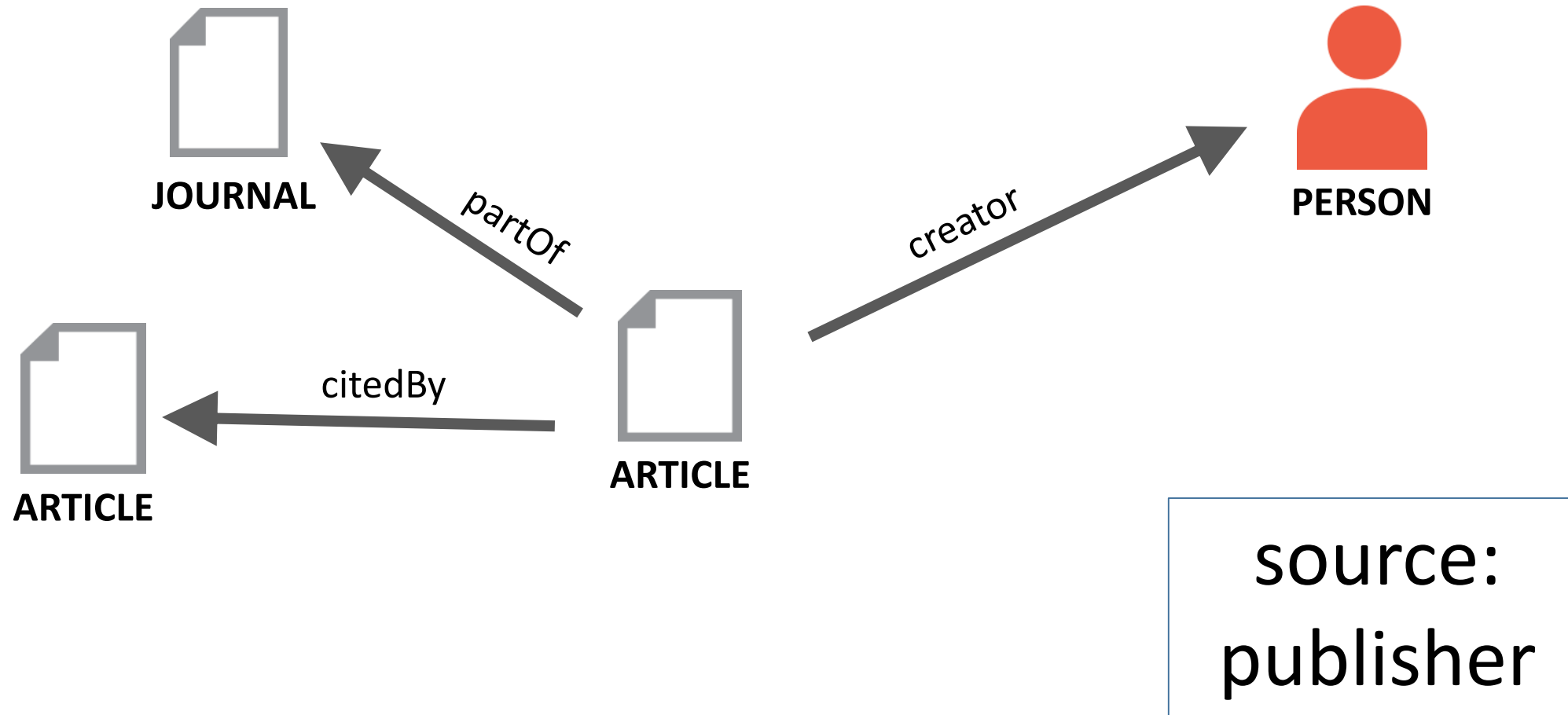


The typical DiSCOs

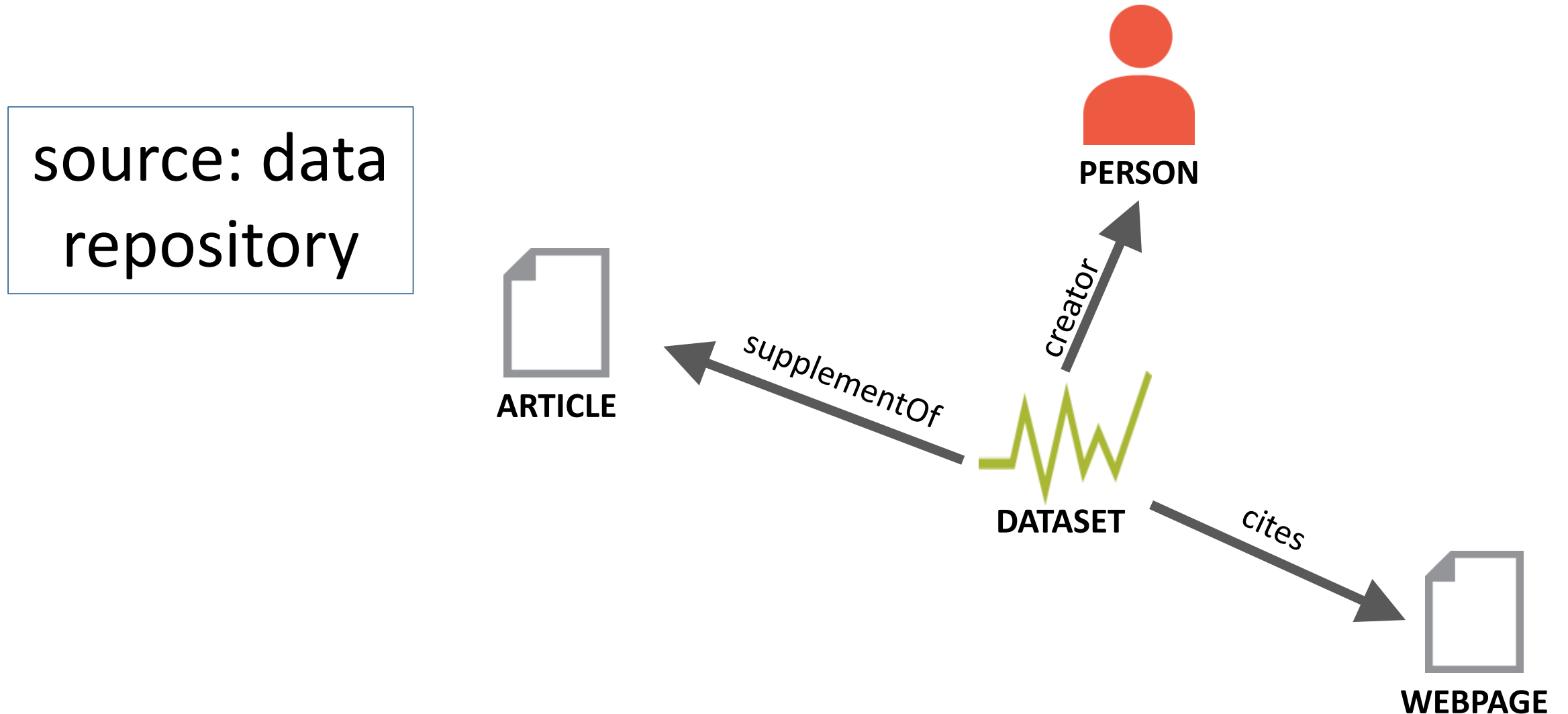


Scattered, incomplete, inconsistent, and created at different times

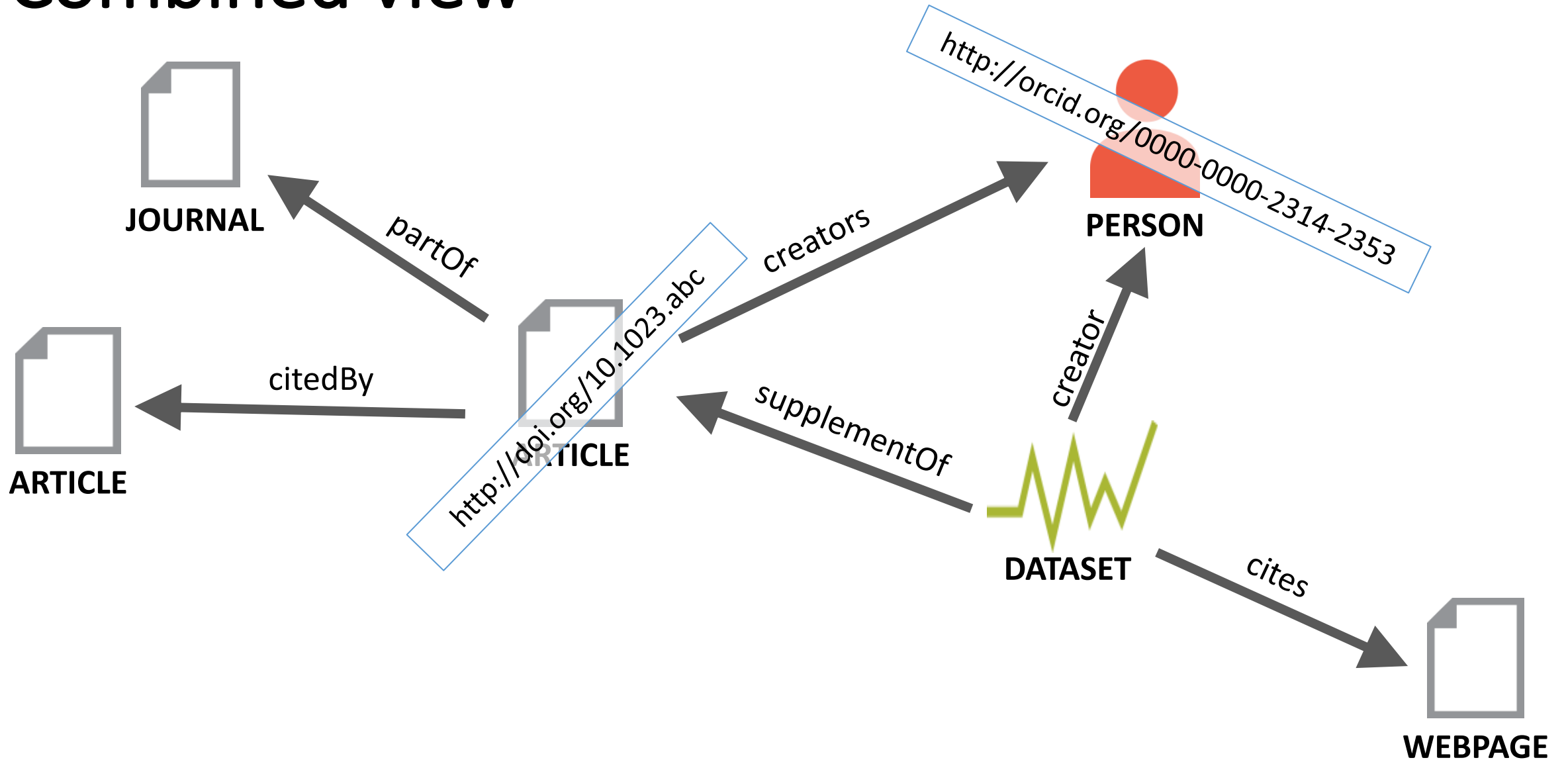
DiSCOs connect through shared identifiers



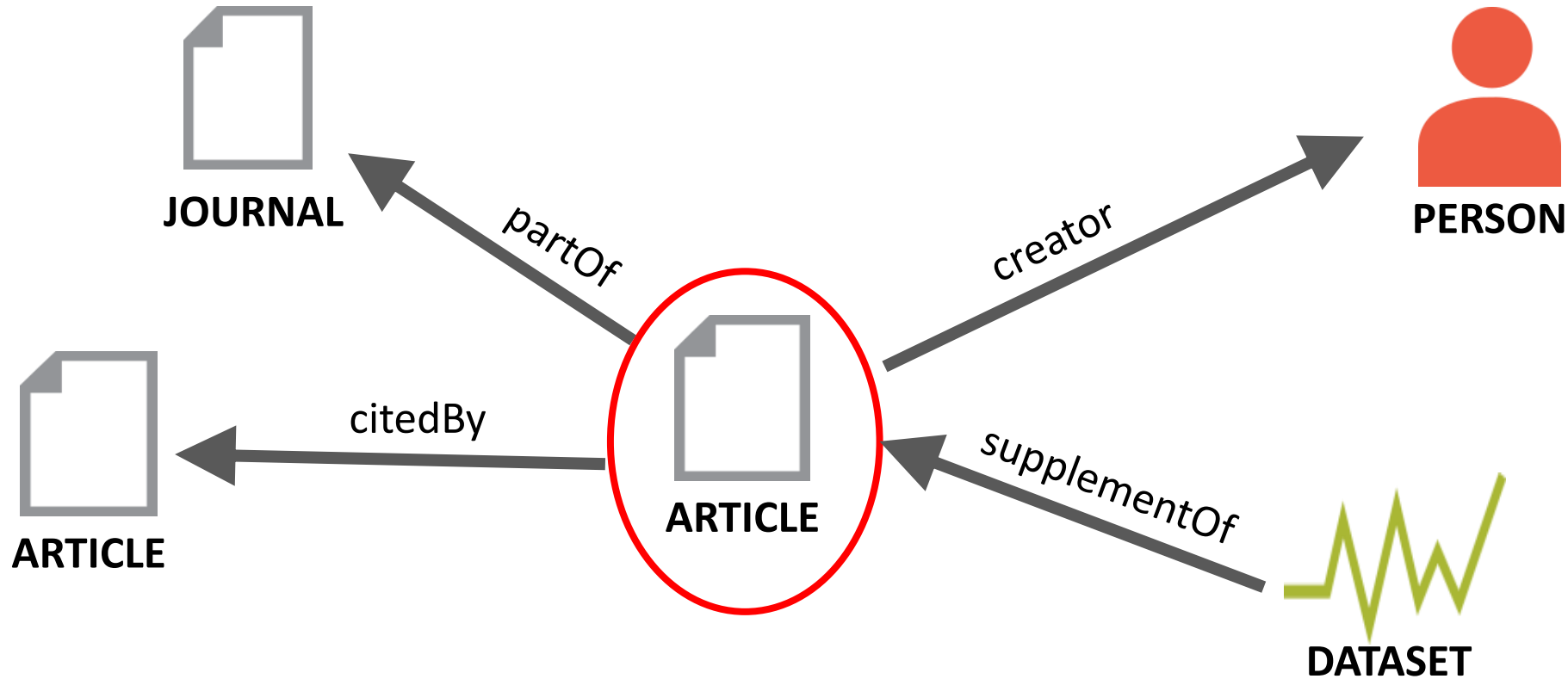
DiSCOs connect through shared identifiers



Combined view



View map from perspective of a single resource

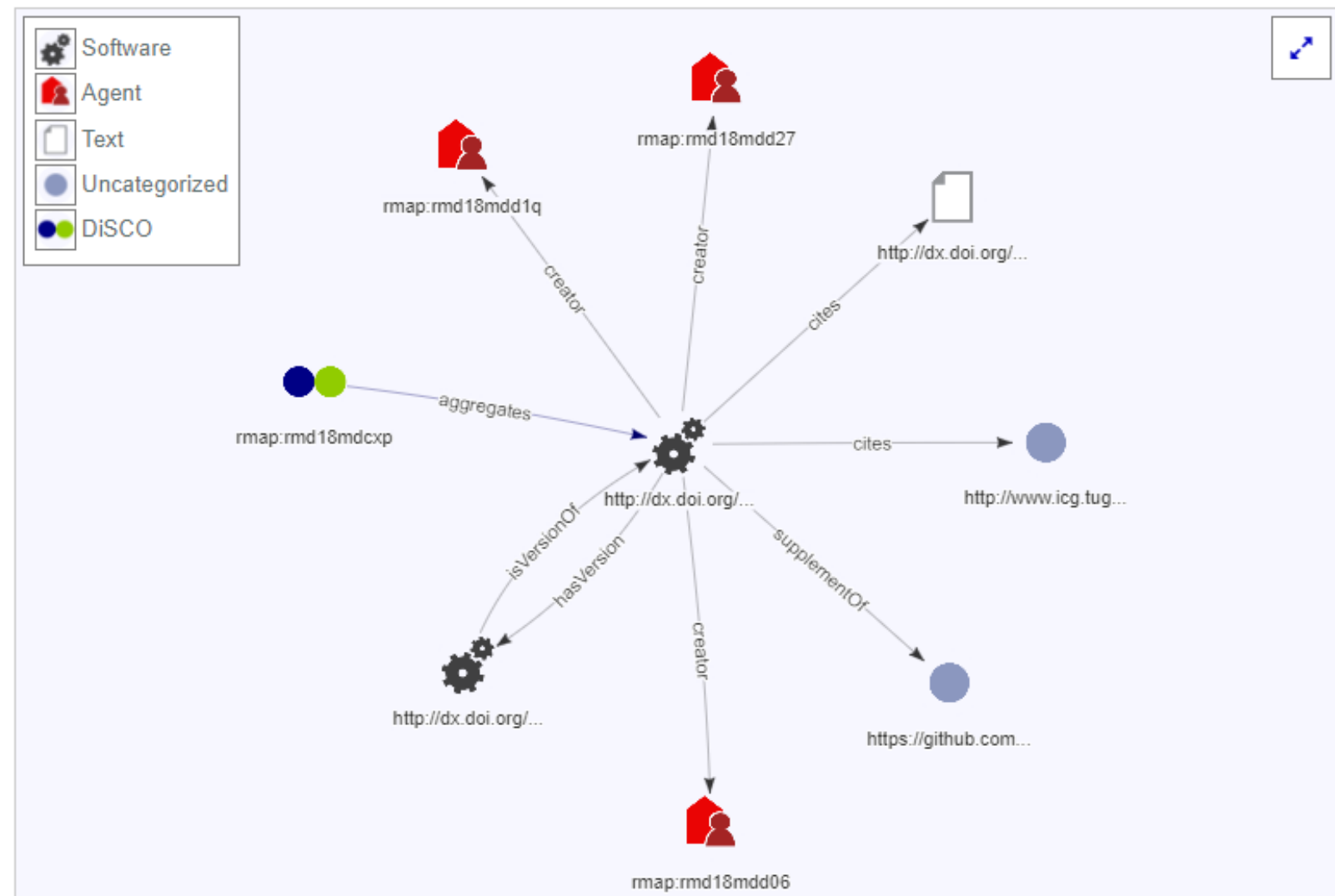


Resource Summary

URI: <http://dx.doi.org/10.5281/zenodo.10307>

Resource type: *dcmitype:Software*;

Showing 1-9 of 9 relationships



Related Active DiSCOs

Showing 1-4 of 4

[rmap:rmd18mdcxp](#)

[rmap:rmd18mdcr3](#)

[rmap:rmp4sspx2](#)

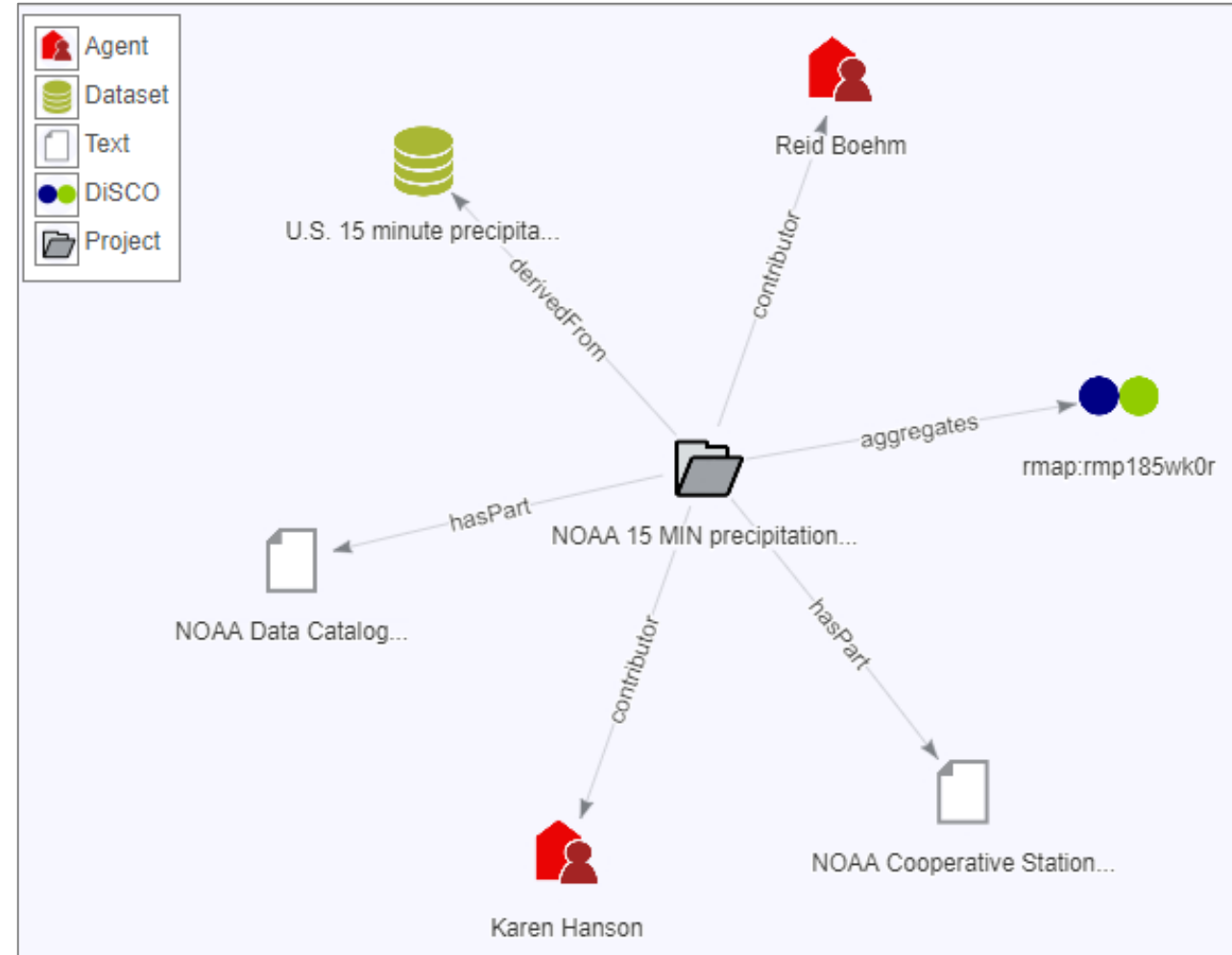
[rmap:rmp185ccpg](#)



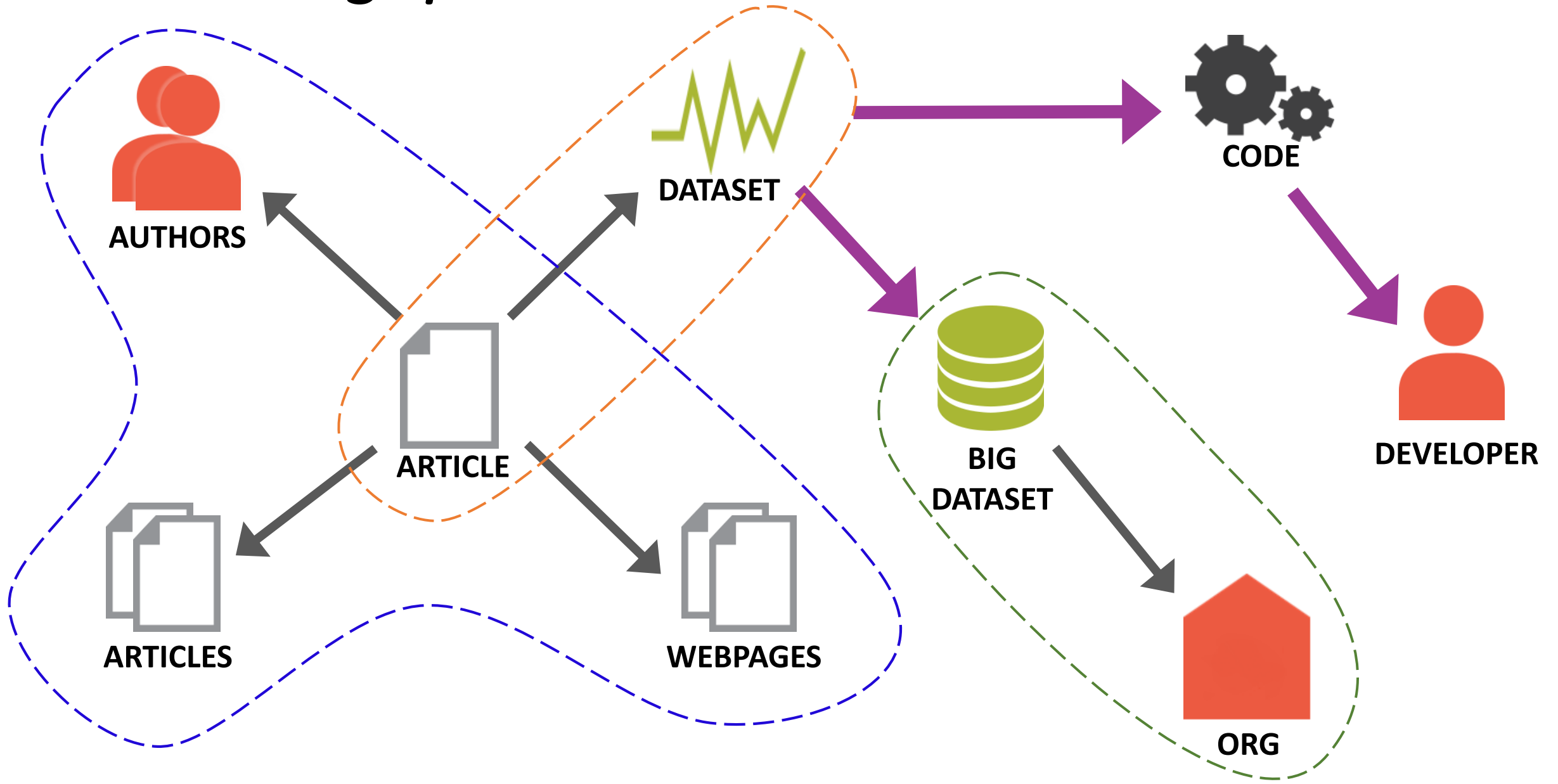
Current work, updates

GUI, API improvements

- Production readiness
- Full text search interface
- Visualization improvements
- Memento versioning



Mind the *gaps*



The background of the slide is a photograph of a grey concrete wall. On the wall, the words "MIND THE GAP" are painted in large, yellow, blocky capital letters. Above the wall, there is a horizontal streak of bright blue light, possibly from a train or a light fixture, creating a sense of motion. The overall tone is somewhat somber and industrial.

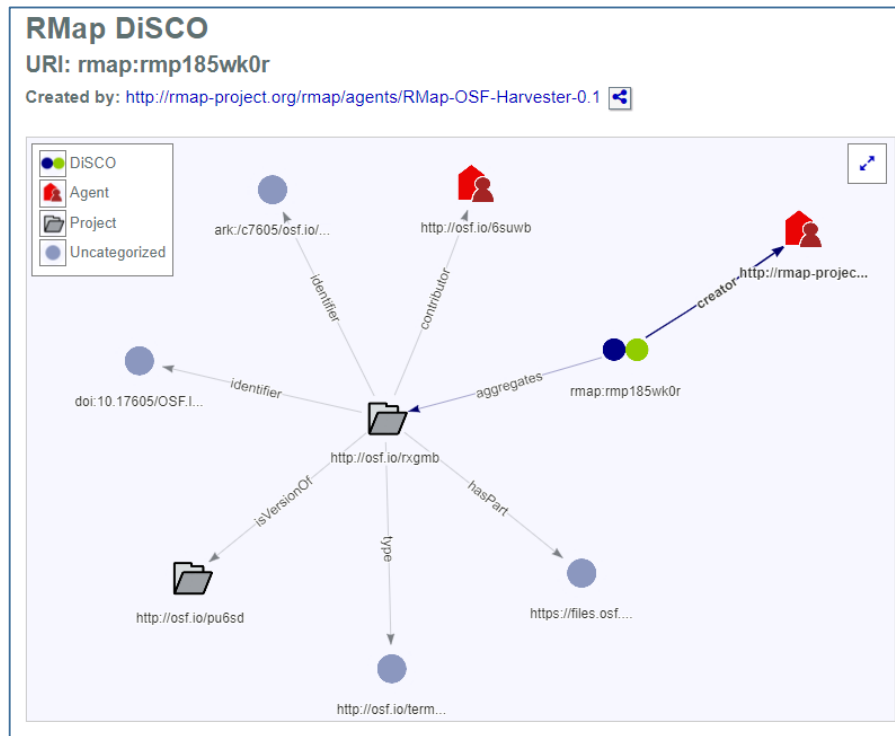
How can we use RMap to help fill in the gaps?

Create **convenient opportunities**
for researchers to **enrich their map**

MIND THE GAP

Open Science Framework

- Used by researchers through research lifecycle
- Harvest profiles, projects, registrations
- Integrate widgets that allow researchers to enrich the map



OSFHOME ▼

Disease vulnerability and preferences f... Files Wiki Analytics

This registration is a frozen, non-editable version of [this project](#)

Disease vulnerability and preferences for self-similar scent

Contributors: [Naomi Muggleton](#)

Date registered: 2016-02-25 08:55 AM

Date created: 2016-02-23 12:51 PM

Identifiers: DOI 10.17605/OSF.IO/RXGMB | ARK c7605/osf.io/rxgmb

RMap-OSF: Connected Resources widget


Connected Resources

Add Connected Resource

Visualize

The following connections were created by the project team:


Project was derived from:

 [U.S. 15 Minute Precipitation Data](#)


Created by [National Oceanic and Atmospheric Administration](#)

Other RMap users created the following connections to the project:

Cited by:

 [Building a successful data rescue program](#)

By [John Doe](#)

powered by 

RMap-OSF: Collaborators and Roles widget

Frequent collaborators

Define your roles

Visualize

C. Chiu

Visualize

8 procedures, 7 communications, 6 data, and 20 other collaborations

D. Fearon

Visualize


6 data, 6 instrumentations, 5 projects, and 10 other collaborations

K. L. Hanson

Visualize


6 instrumentations, 5 data, 2 projects, and 6 other collaborations

< 1 2 3 4 >

powered by 

Your roles X

The following works are associated with your profile in RMap. Here you can define your specific role in these works. The data will be saved in RMap

 US Cattle Traceability Information – State Government Web Info...


Postdoctoral researcher

Remove


Author

Remove

+ Add Role





 DMD Data Rescue Documentation Space

+ Add Role

 NOAA 15 MIN Precipitation Data

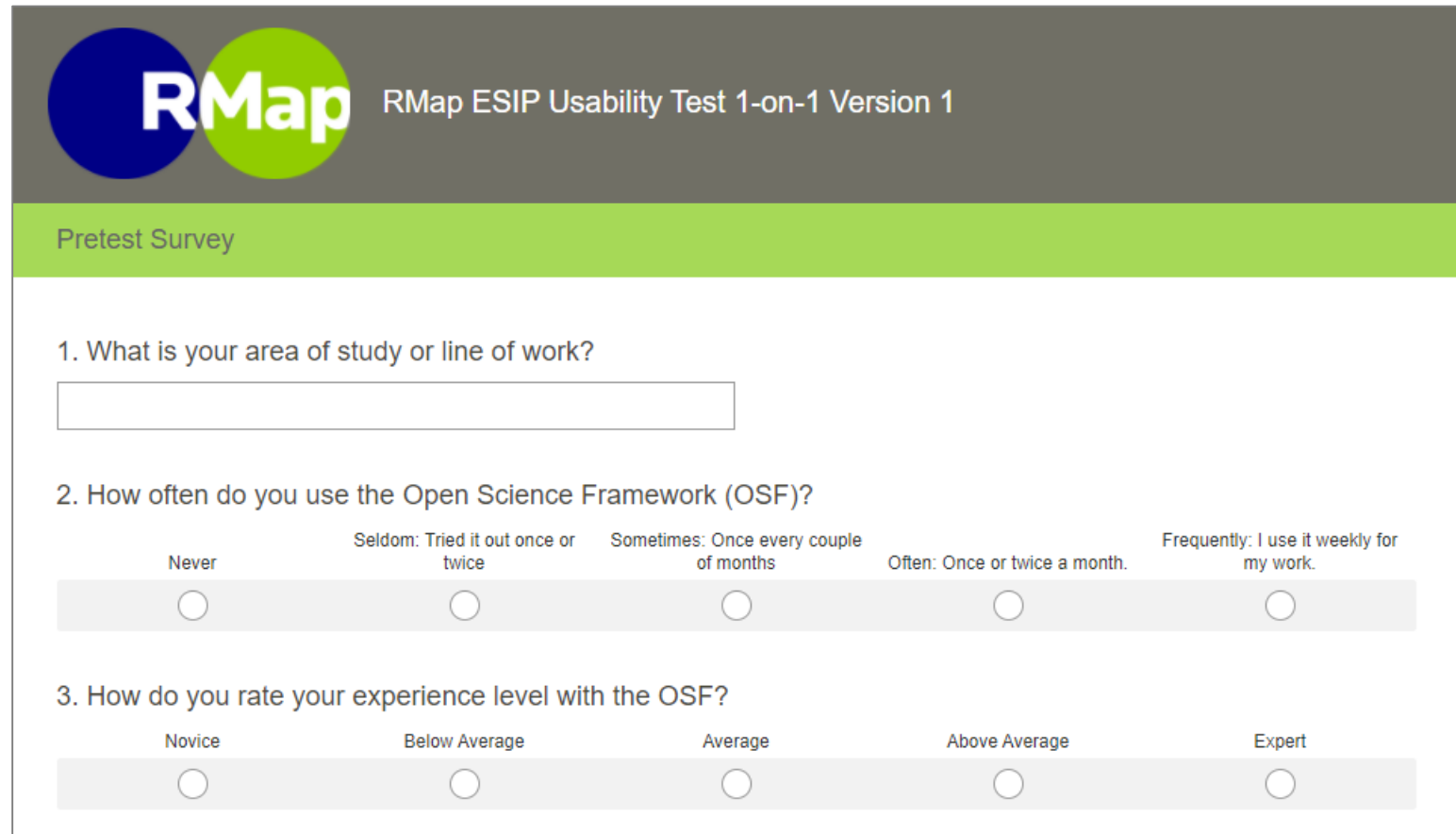
+ Add Role

RMap-OSF: Social link

Social	Employment	Education
	ORCID	0000-0002-9354-8328
	Twitter	karenhansn
	GitHub	karenhanson
	RMap	Karen Hanson

RMap-OSF: Usability testing

- 15-30 minutes
- Walk through each feature
- Provide feedback



The screenshot shows a survey form titled "RMap ESIP Usability Test 1-on-1 Version 1" with a "Pretest Survey" section. It contains three questions: 1. A text input field for the area of study or line of work. 2. A Likert scale for OSF usage frequency from "Never" to "Frequently: I use it weekly for my work." 3. A Likert scale for OSF experience level from "Novice" to "Expert".

RMap RMap ESIP Usability Test 1-on-1 Version 1

Pretest Survey

1. What is your area of study or line of work?

2. How often do you use the Open Science Framework (OSF)?

Never Seldom: Tried it out once or twice Sometimes: Once every couple of months Often: Once or twice a month. Frequently: I use it weekly for my work.

☐ ☐ ☐ ☐ ☐

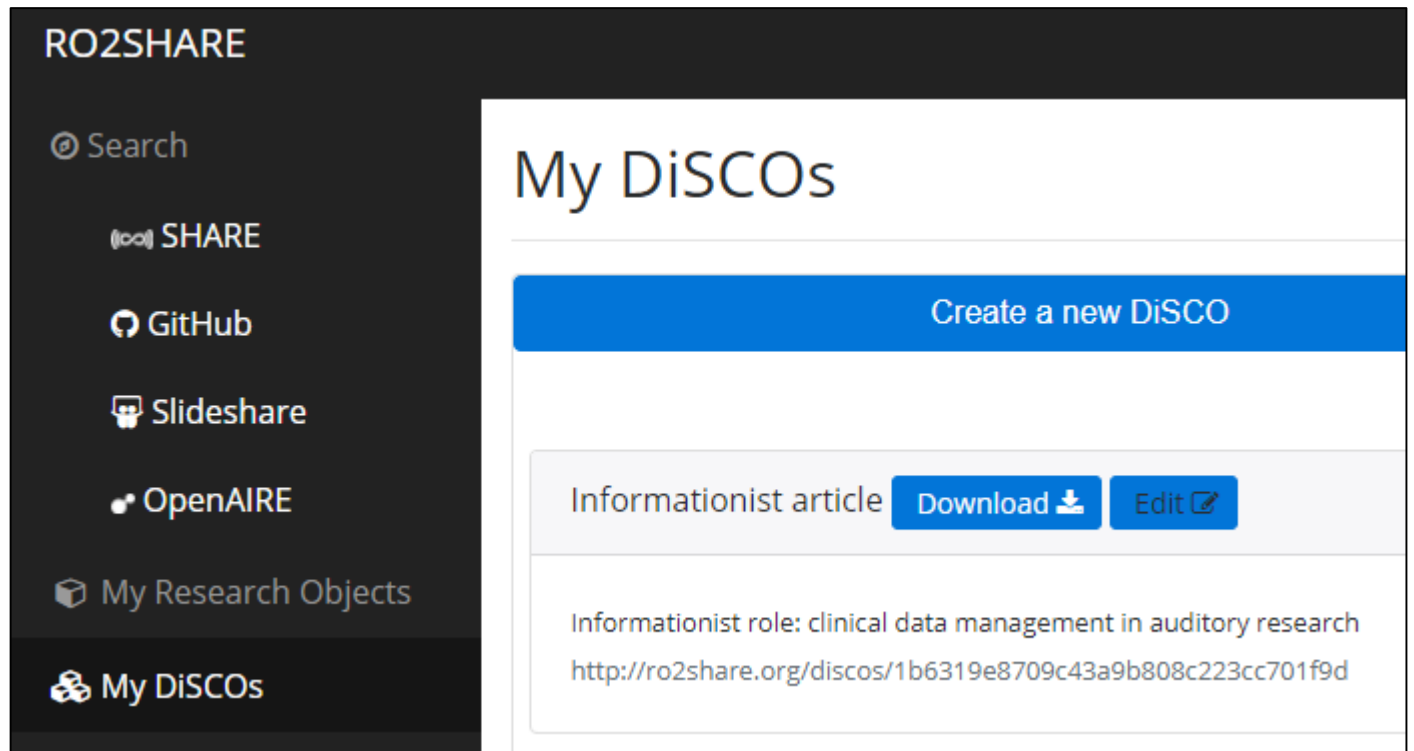
3. How do you rate your experience level with the OSF?

Novice Below Average Average Above Average Expert


☐ ☐ ☐ ☐ ☐

RO2SHARE

- Project by **Alexander Garcia Castro** at **Technical University of Madrid**
- Allows researchers to create DiSCOs without knowing RDF
- Find and convert OpenAIRE, Github, Slideshare, and SHARE data
- Support metadata improvement




Data Rescue Boulder – Data Conservancy Pilot

 Open Science Framework

DashboardMy ProjectsBrowseKaren L. Hanson

NOAA 15 MIN Precipitation DataFilesWikiAnalyticsRegistrationsForksContributorsSettings

 NOAA 15 MIN Precipitation Data

PrivateMake Public1

Contributors: Reid Boehm, Karen L. Hanson

Affiliated Institutions: Johns Hopkins University

Date created: 2017-04-19 03:37 PM | Last Updated: 2017-04-20 11:02 AM

Category: Project

Description:

U.S. 15 Minute Precipitation Data is digital data set DSI-3260, archived at the National Climatic Data Center (NCDC). This is precipitation data. The primary source of data for this file is approximately 2,000 mostly U.S. weather stations operated or managed by the U.S. National Weather Service. Stations are primary, secondary, or cooperative observer sites that have the capability to measure precipitation at 15 minute intervals. This dataset contains 15-minute precipitation data (reported 4 times per hour, if precip occurs) for U.S. stations along with selected non-U.S. stations in U.S. territories and associated nations. It includes major city locations and many small town locations. Daily total precipitation is also included as part of the data record. NCDC has in archive data from most states as far back as 1970 or 1971, and continuing to the present day. The major parameter is precipitation amounts at 15 minute intervals, when precipitation actually occurs.

License: No license

Wiki

U.S. 15 Minute Precipitation Data

This is a rescued dataset accessible to the public, to see the original NOAA catalog entry visit: <https://data.noaa.gov/dataset/u-s-15-minute-precipitation-data>

Originators: DOC/NOAA/NESDIS/NCDC > National Climatic Data Center, NESDIS, NOAA, U.S. Department of Commerce

Original Publishers: DOC/NOAA/NESDIS/NCEI > National Centers for Environmental Information, NES...

Read More

Citation

osf.io/grhz7

Connected Resources

Add Connected ResourceVisualize

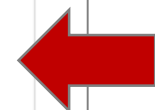
The following connections were created by the project team:

Project was derived from:

U.S. 15 Minute Precipitation Data

Created by National Oceanic and Atmospheric Administration

powered by RMap



Data Rescue Boulder – Data Conservancy Pilot

Connected Resources



Add Connected Resource


Visualize


i

The following connections were created by the project team:

Project was derived from:

 [U.S. 15 Minute Precipitation Data](#) 

Created by [National Oceanic and Atmospheric Administration](#) 


powered by 

Data Rescue Boulder – Data Conservancy Pilot

Open Science Framework

DashboardMy ProjectsBrowseKaren L. Hanson

NOAA 15 MIN Precipitation DataFilesWikiAnalyticsRegistrationsForksContributorsSettings

 NOAA 15 MIN Precipitation Data

PrivateMake Public1

Contributors: Reid Boehm, Karen L. Hanson

Affiliated Institutions: Johns Hopkins University

Date created: 2017-04-19 03:37 PM | Last Updated: 2017-04-20 11:02 AM

U.S. 15 Minute Precipitation Data

This is a rescued dataset accessible to the public, to see the original NOAA catalog entry visit: <https://data.noaa.gov/dataset/u-s-15-minute-precipitation-data>

Originators: DOC/NOAA/NESDIS/NCDC > National Climatic Data Center, NESDIS, NOAA, U.S. Department of Commerce


Original Publishers: DOC/NOAA/NESDIS/NCEI > National Centers for Environmental Information, NES...

[Read More](#)


Connected ResourcesAdd Connected ResourceVisualize

The following connections were created by the project team:

Project was derived from:

 [U.S. 15 Minute Precipitation Data](#)

Created by [National Oceanic and Atmospheric Administration](#)

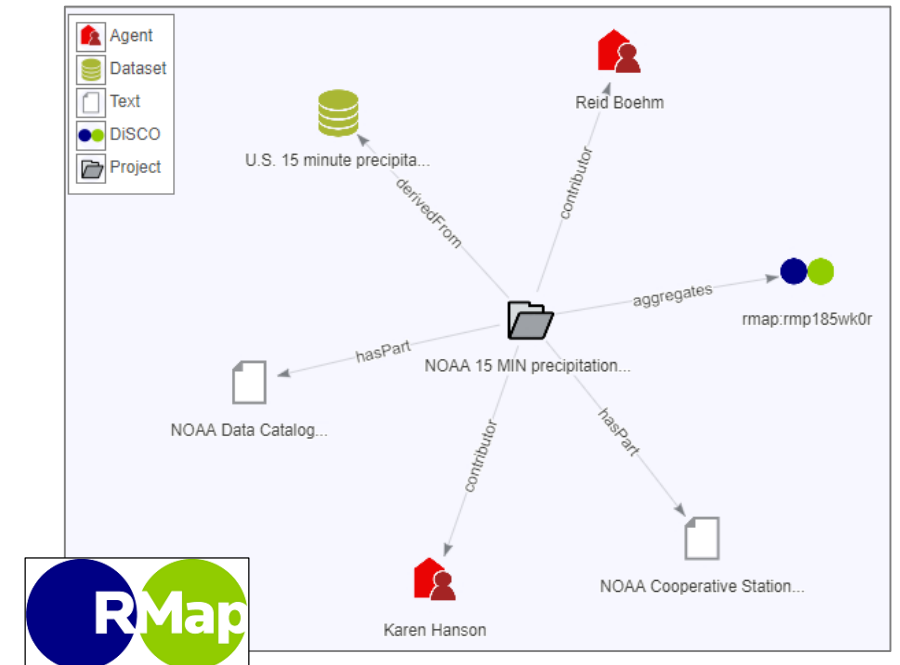
powered by 

To see demos of the other components of the Data Rescue pilot, search for *Data Conservancy* on YouTube

<https://www.youtube.com/user/dataconservancy>

Resources

- Public sandboxes available: <https://test.rmap-hub.org>
- Code is on GitHub: <https://github.com/rmap-project>





<http://www.rmap-project.info> (general info)

<https://rmap-project.atlassian.net> (tech wiki)

@rmapproject | rmap.project@gmail.com

@karenhansn | karen.hanson@jhu.edu

Acknowledgements

RMap is funded by the Alfred P. Sloan Foundation

Thanks to RMap project colleagues:

- JHU: Sayeed Choudhury (PI), Aaron Birkland, Tim DiLauro, Hanh Vu
- Portico: Kate Wittenberg (PI), Sheila Morrissey, Jabin White, Vinay Cheruku, Amy Kirchhoff, John Meyer, Stephanie Orphan, Joseph Rogowski
- IEEE: Gerry Grenier (PI), Mark Donoghue, Renny Guida, Ken Rawson, Ken Moore.