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

Earth Science and Information Partners, Bloomington IN

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Karen Hanson, Data Conservancy

Alfred P. Sloan FOUNDATION

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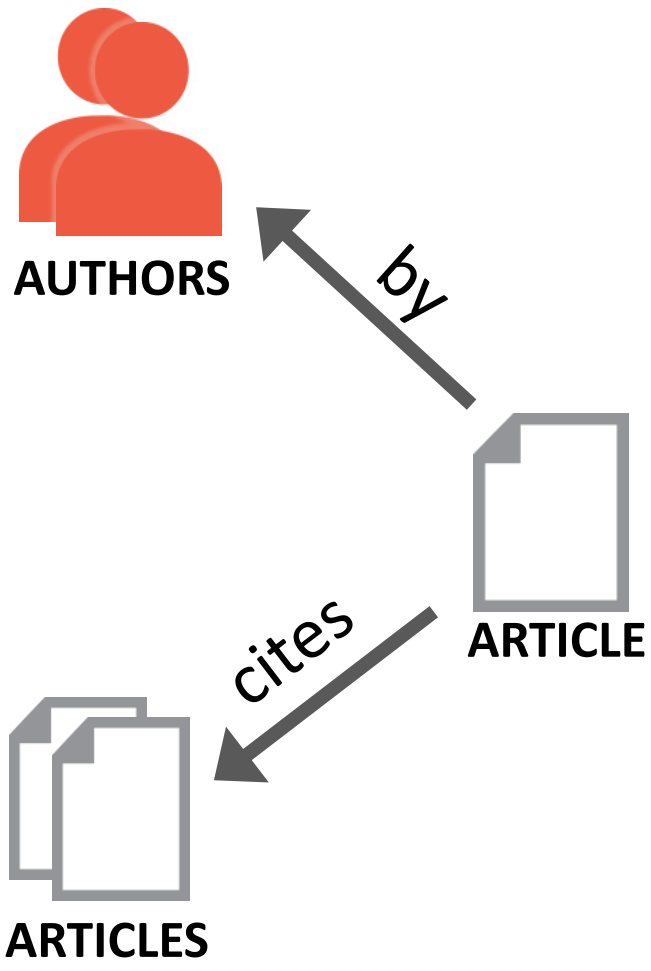
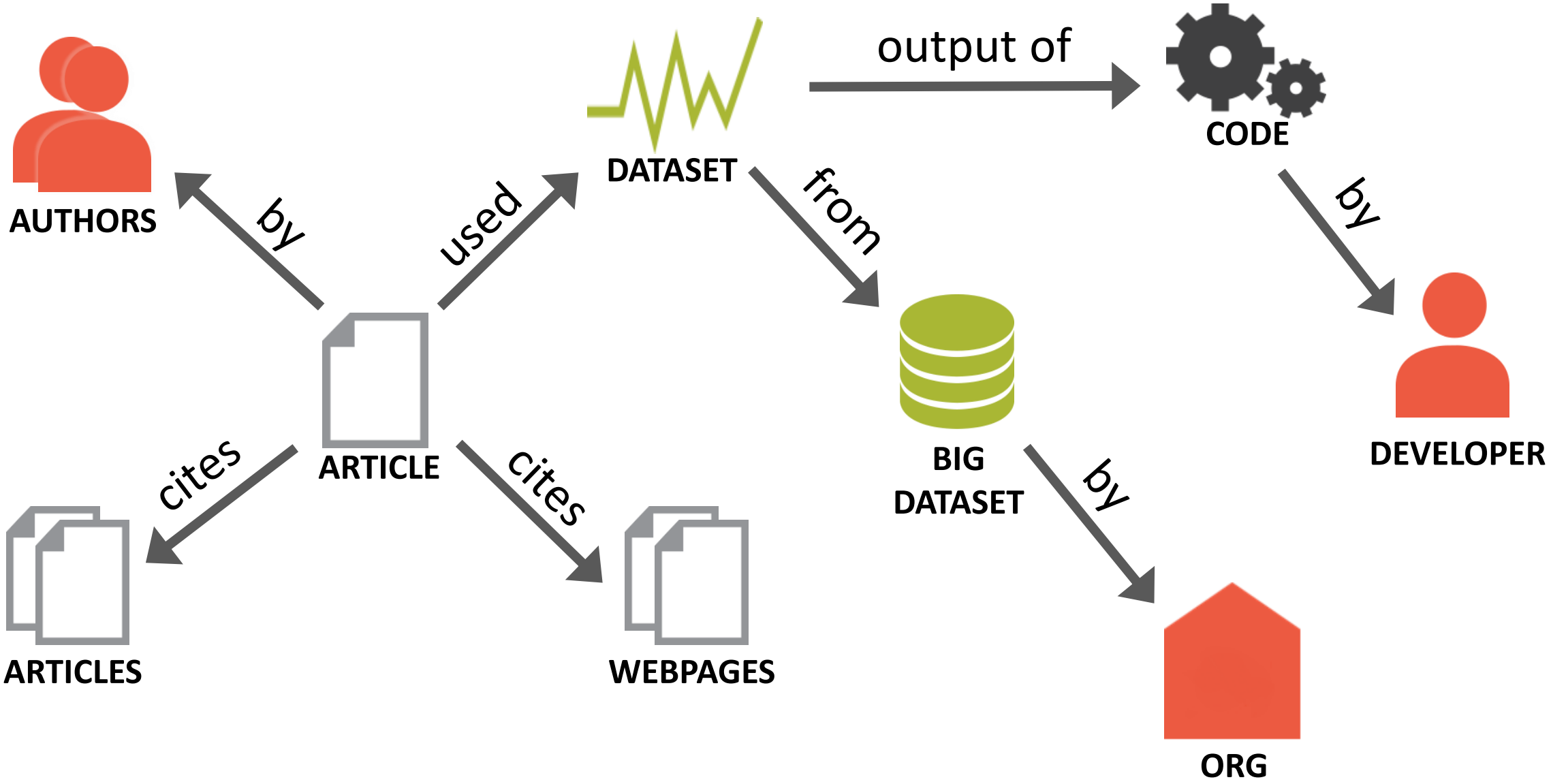
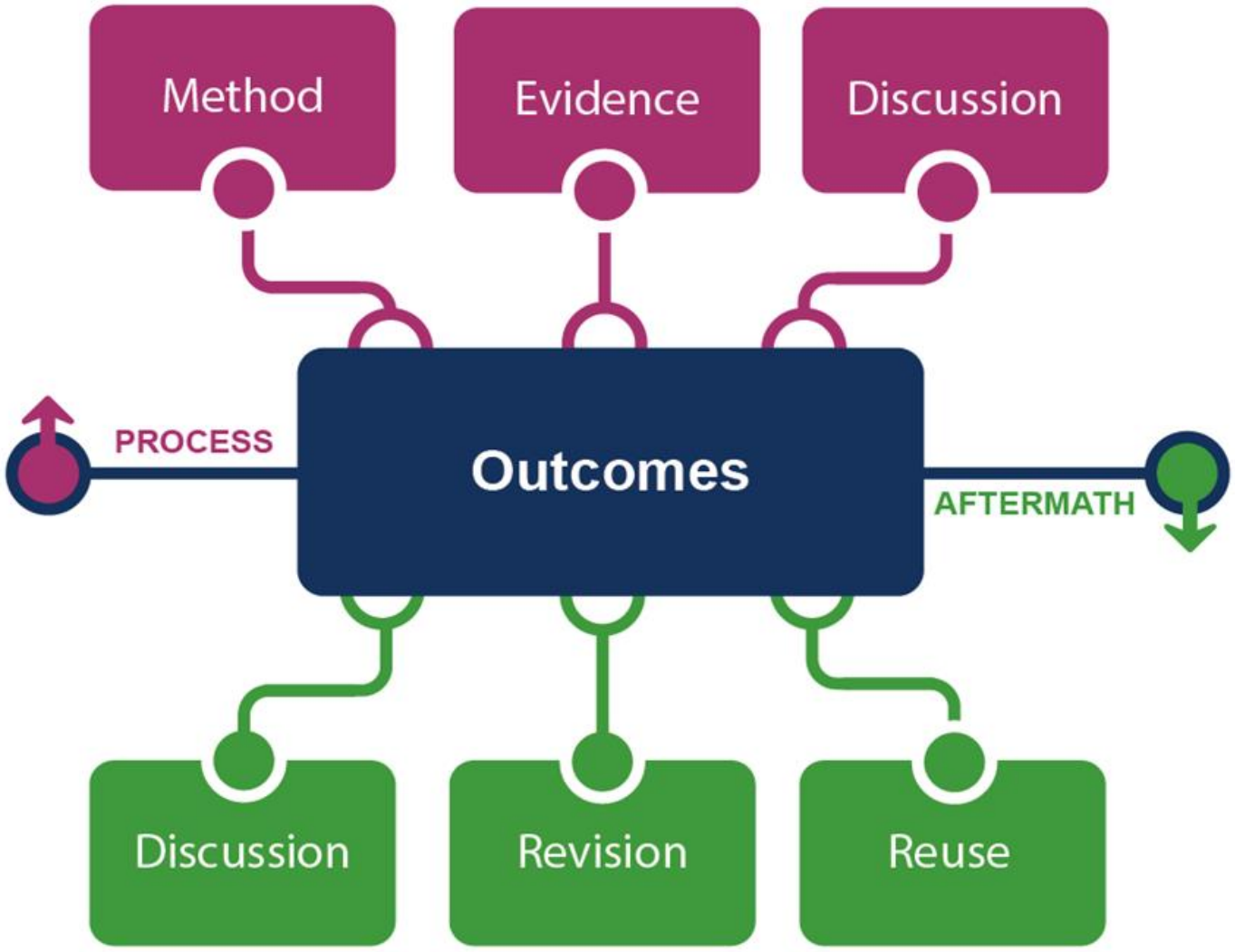
View of a scholarly work



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

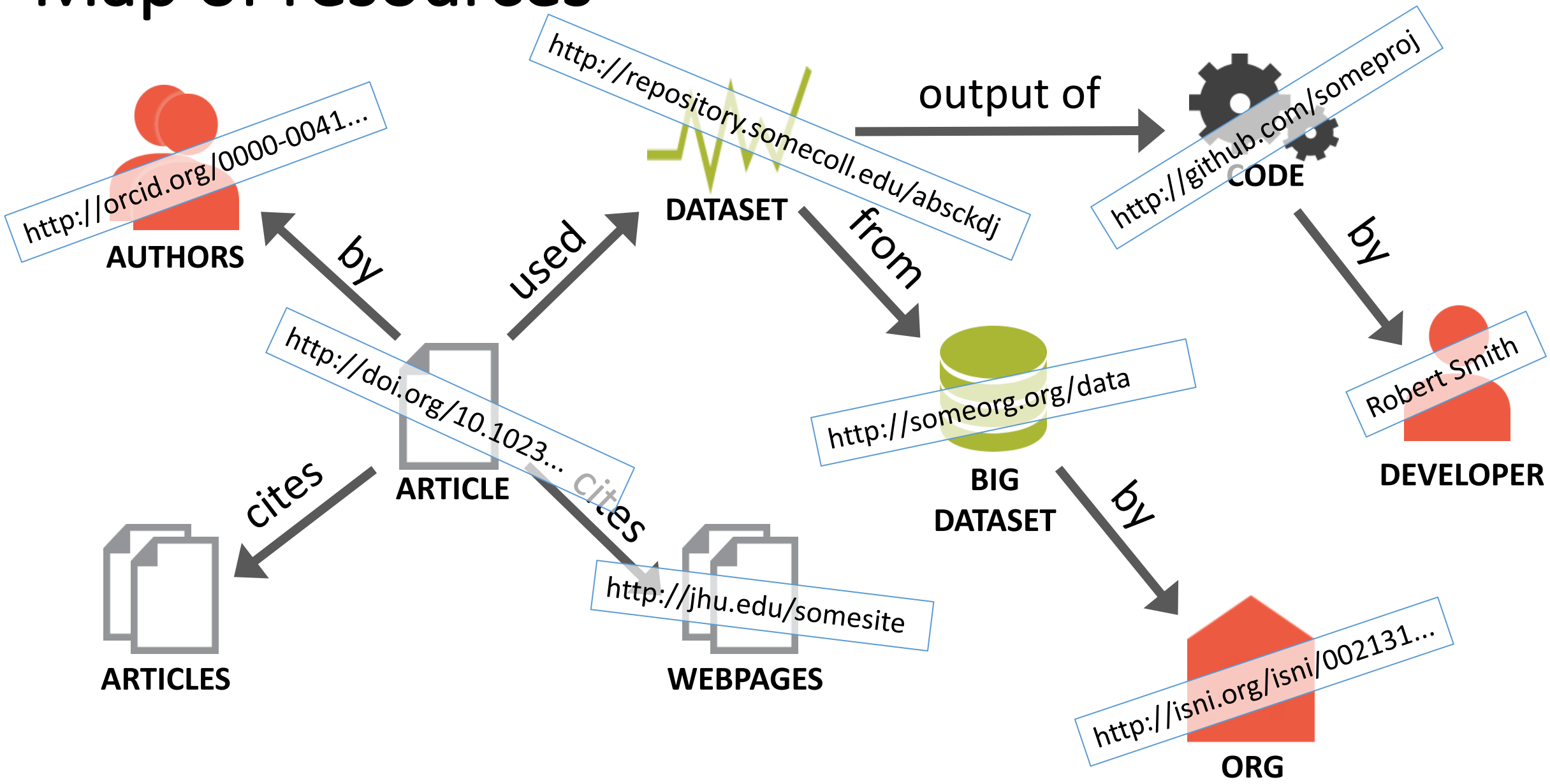
[9] Klein, M., Van de Sompel, H., Sanderson, R., et al. 2014. Scholarly Context Not Found: One in Five Articles Suffers from Reference Rot. *PLoS ONE,* 9, 12. e115253. DOI= http://doi.org/10.1371/journal.pone.0115253

[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

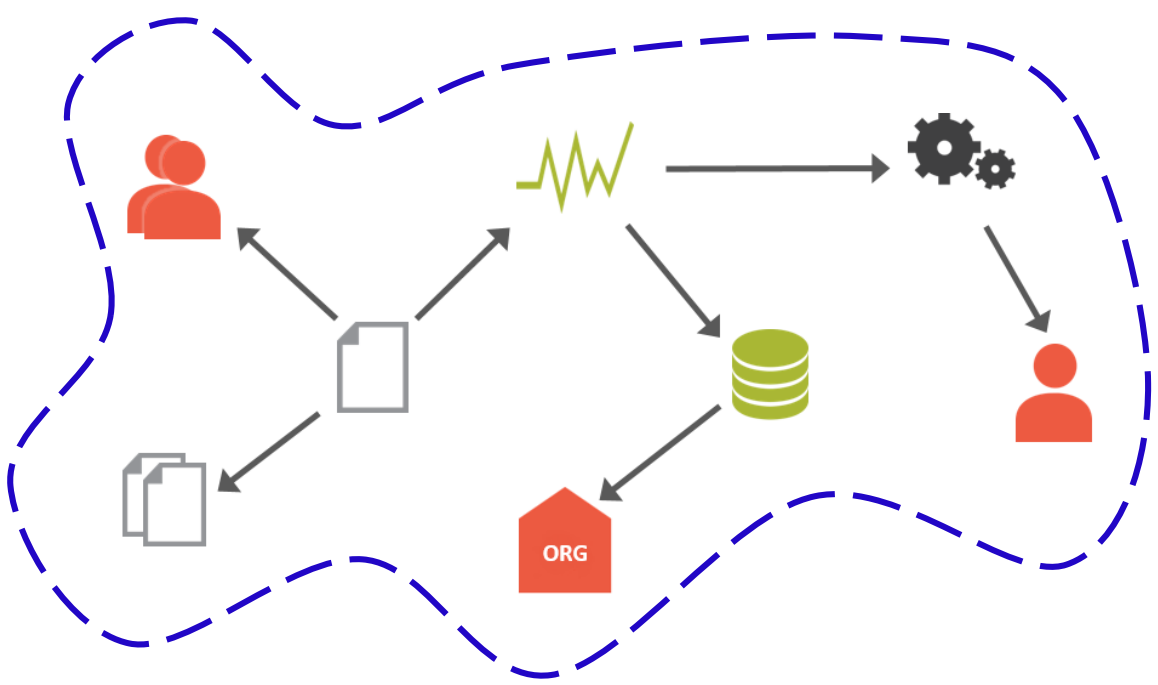
[11] Mayo, C., Hull, E.A. and Vision, T.J. 2015. The location of the citation: changing practices in how publications cite original data in the Dryad Digital Repository. *Zenodo*. DOI= http://doi.org/10.5281/zenodo.32412

How can we capture detailed context of a scholarly work?

Map of resources



RMap captures and preserves maps of works



RDF
(linked data)

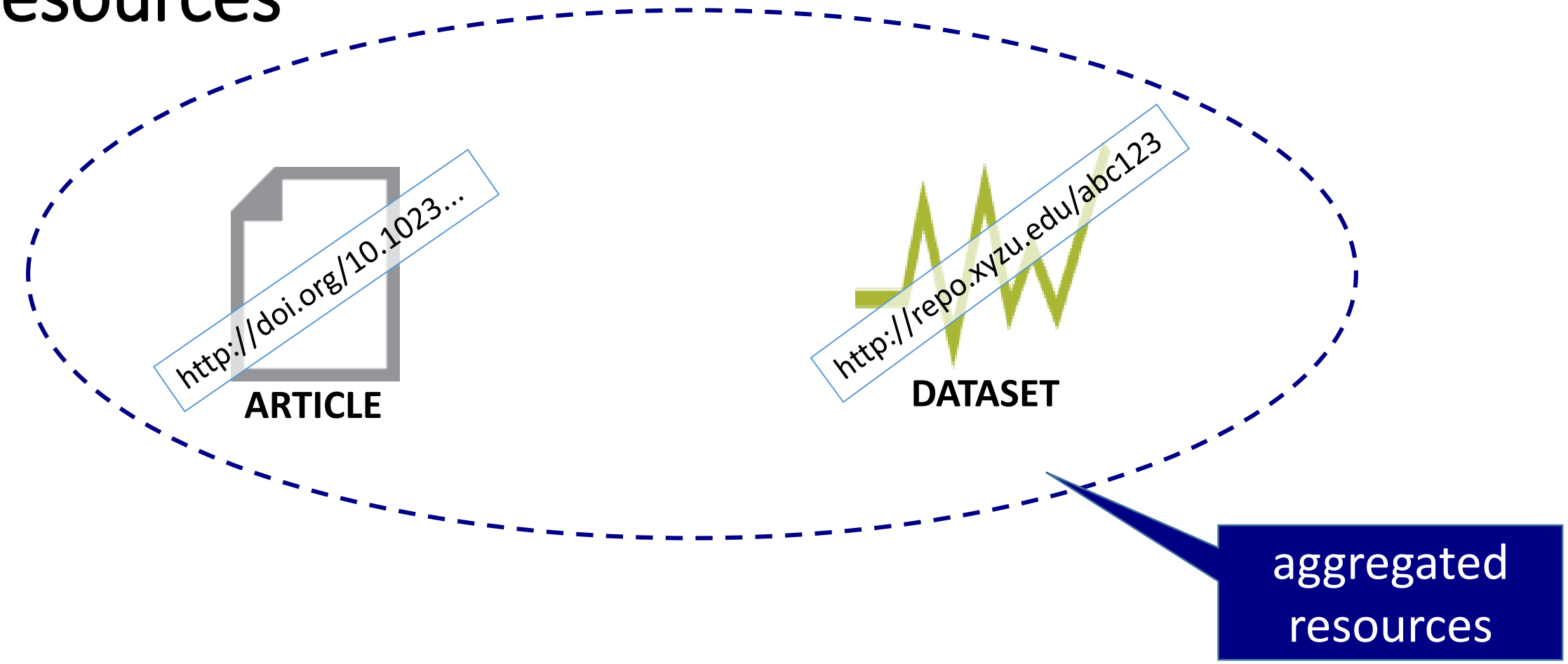
RMap

RMap DiSCO

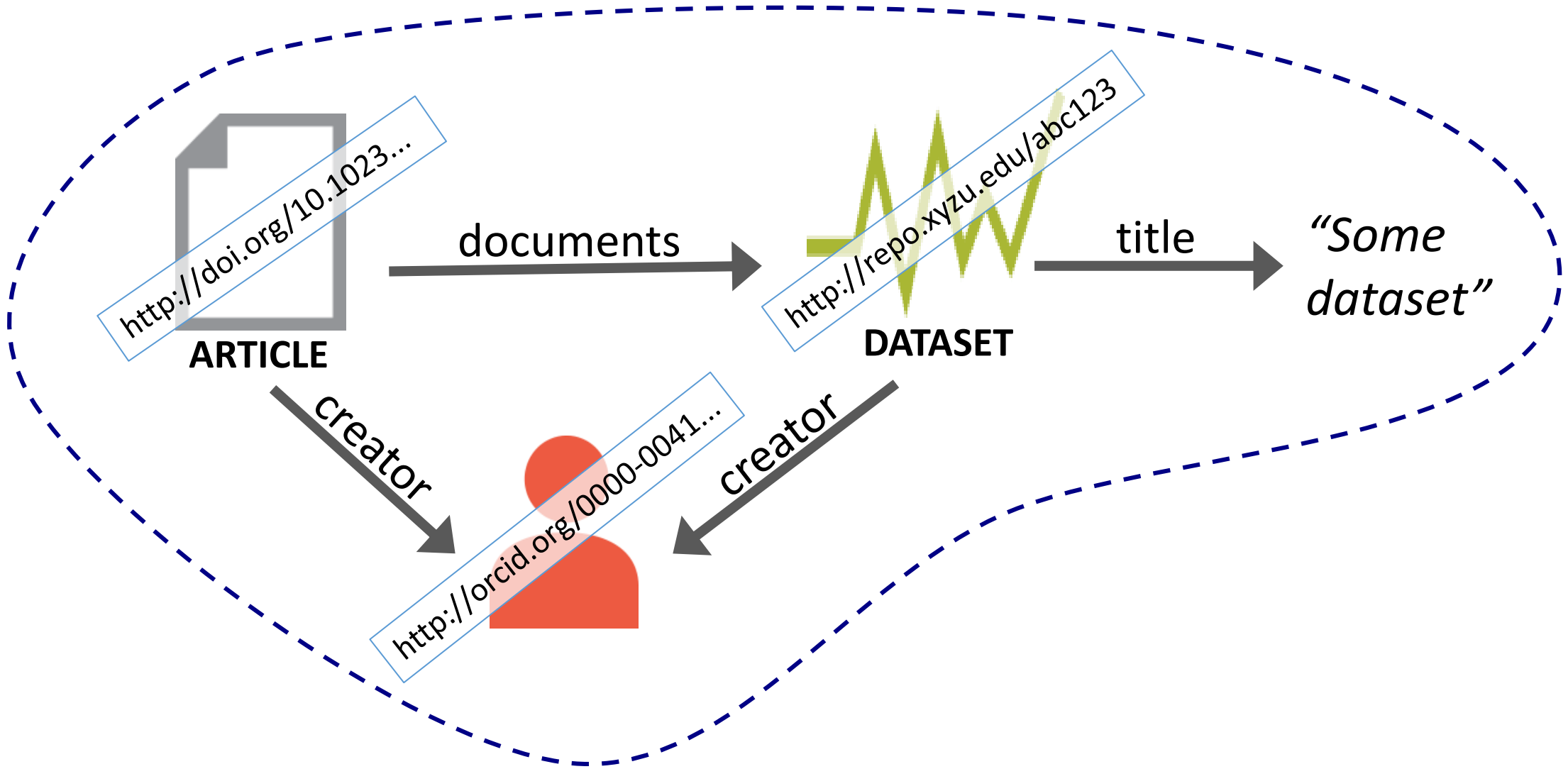
(Distributed Scholarly Compound Object)

Some features of a DiSCO

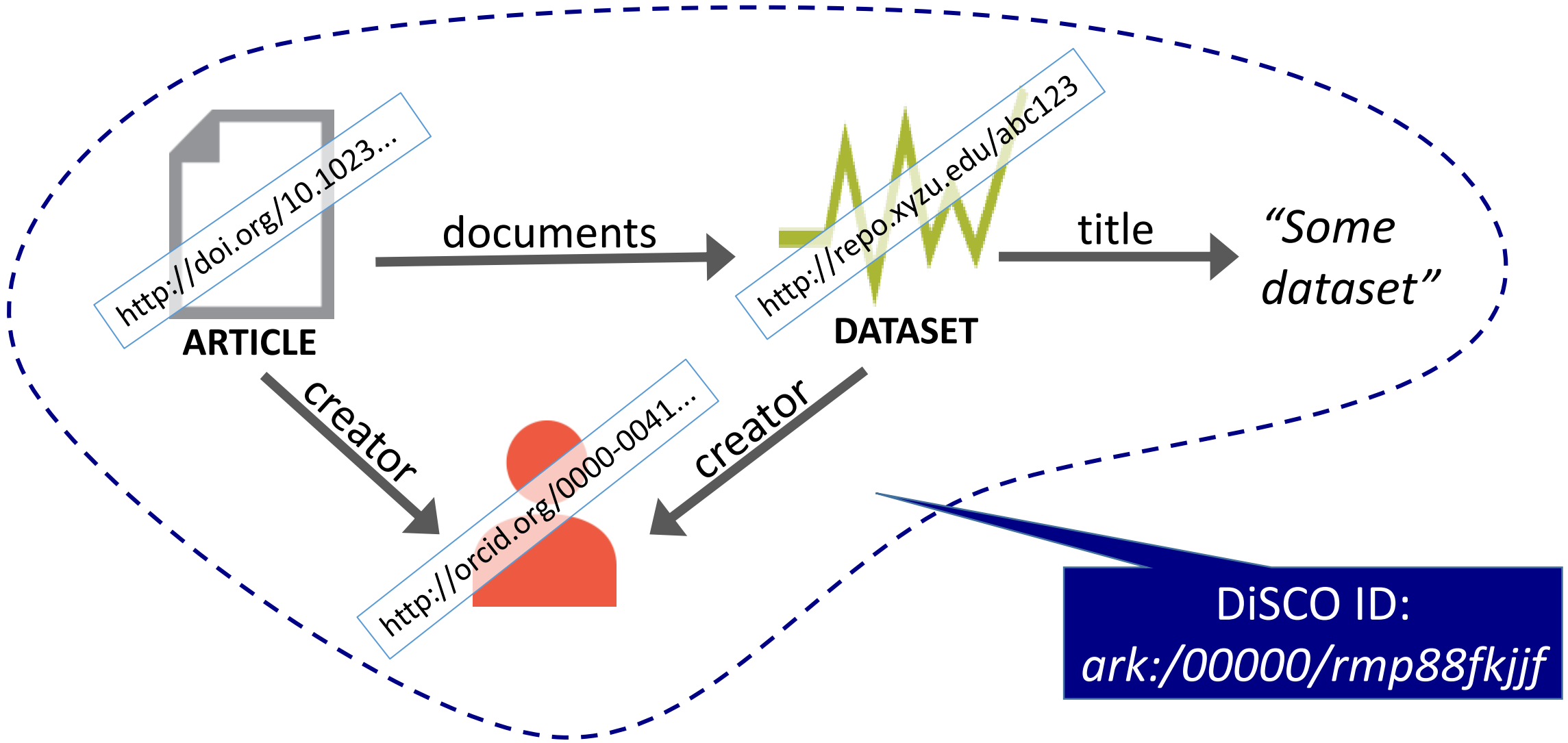
Describes an aggregation of 1 or more scholarly resources



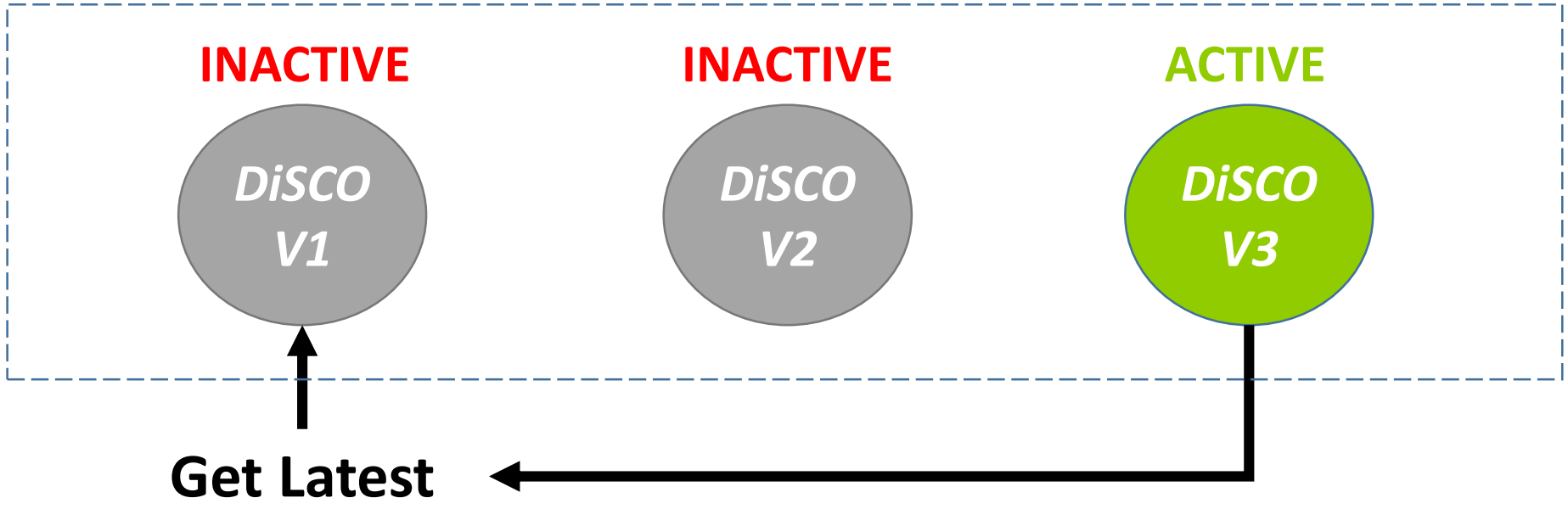
Aggregated resource plus context



DiSCO persistent identifier for retrieval



DiSCOs are version-able, have status



RMap in a nutshell

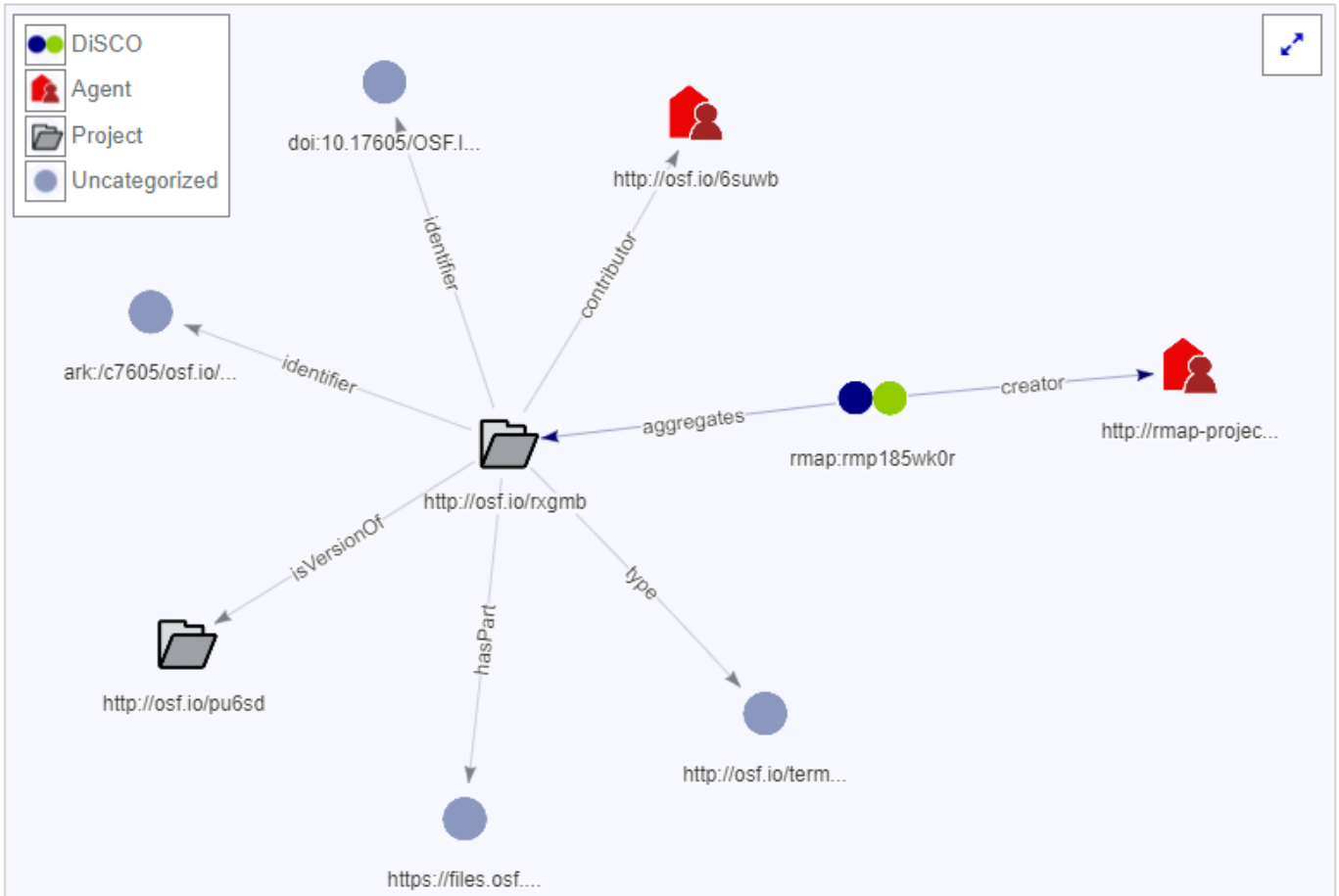
REST API service for managing and retrieving the map of relationships amongst distributed scholarly works.

https://pixabay.com/en/nuts-walnuts-shell-baking-heart-1340771/

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

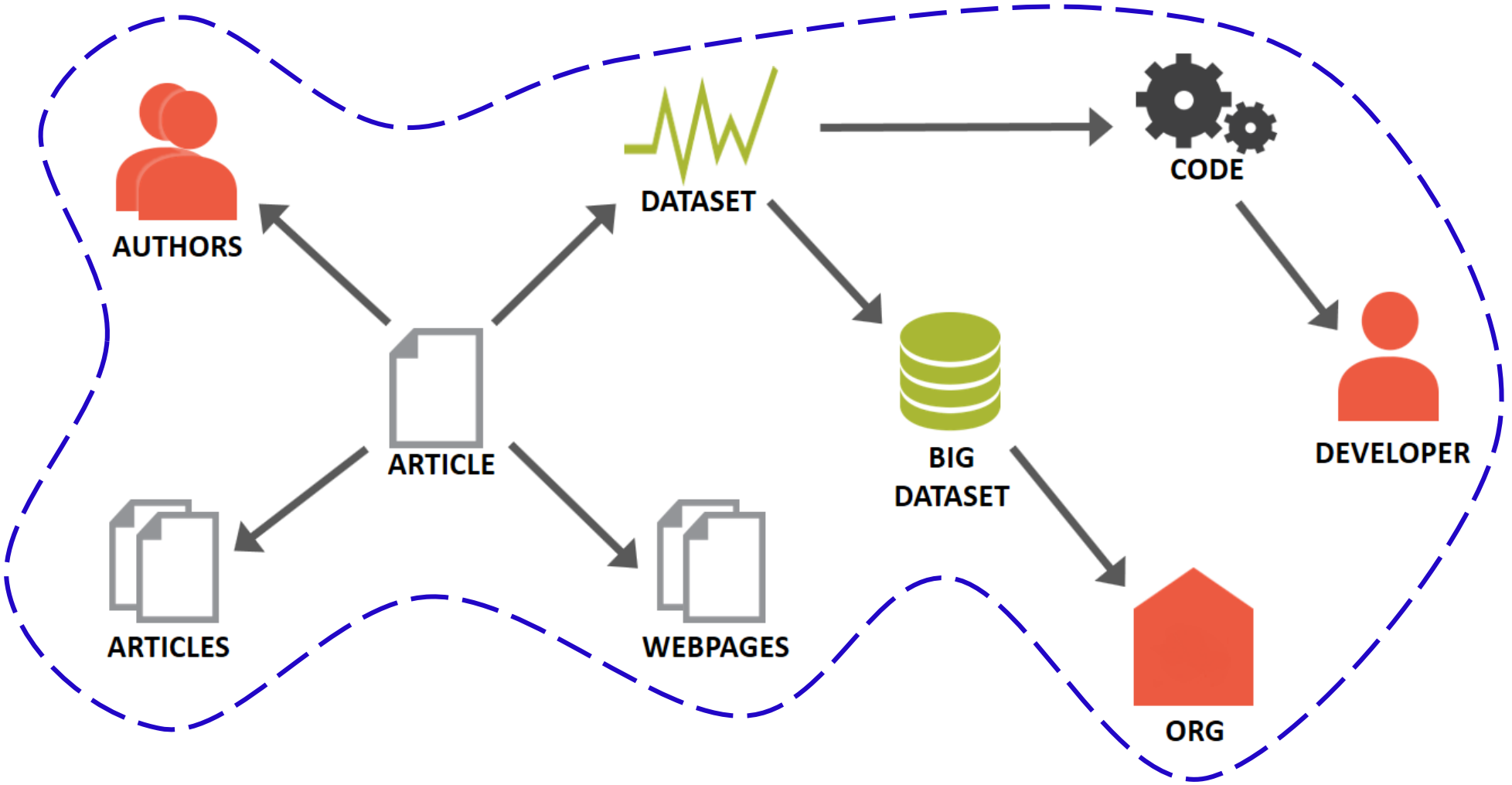
Same agent

None found

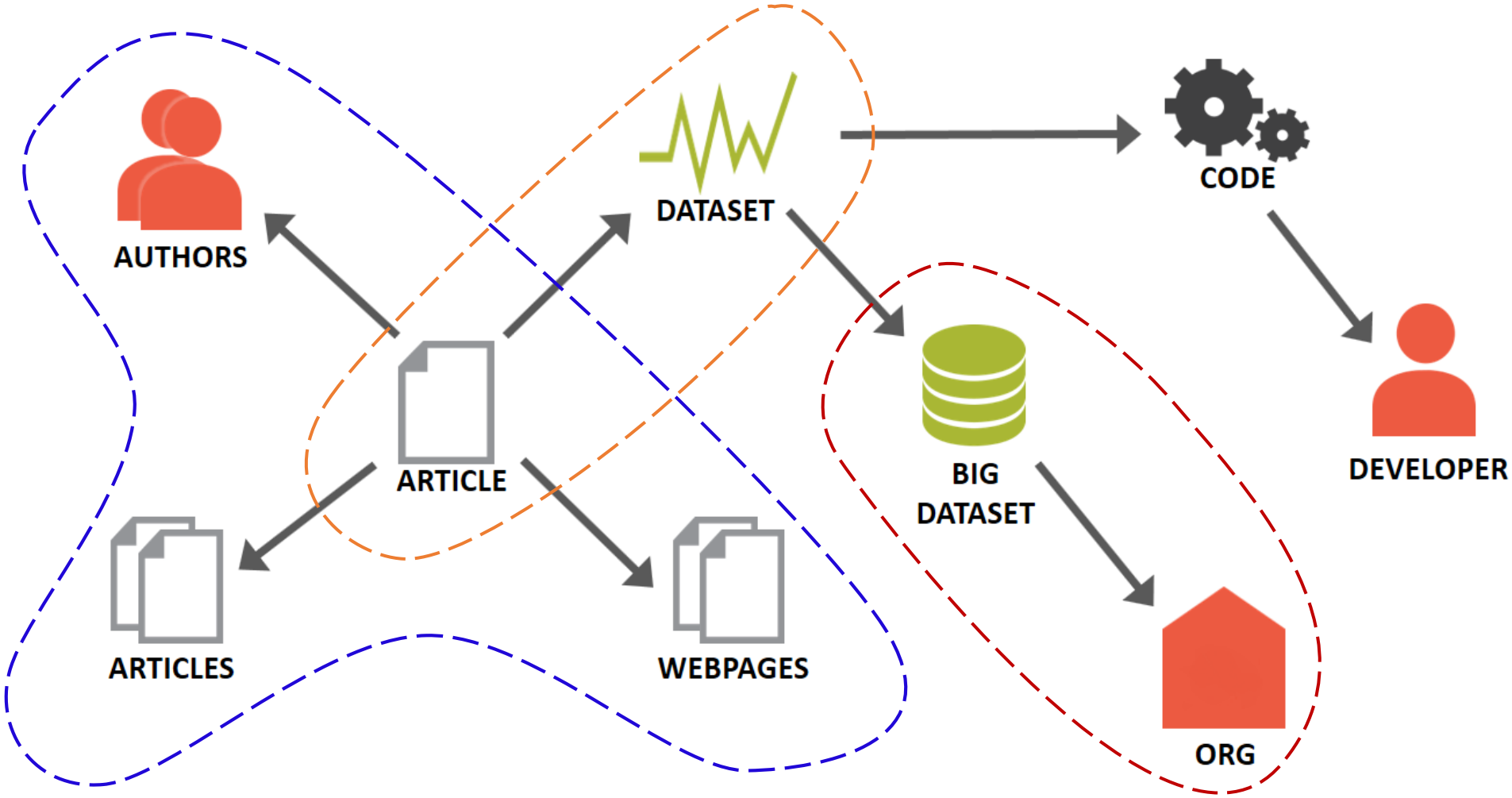
Other agents

None found

The *ideal* DiSCO

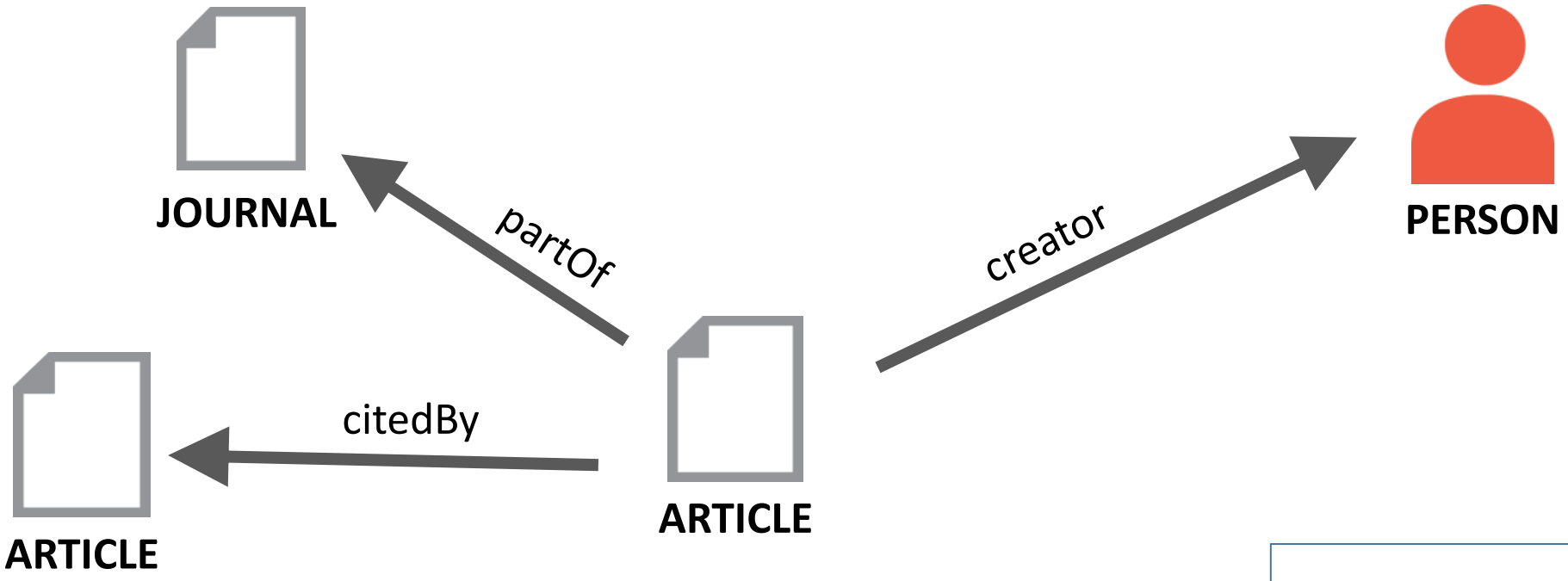


The typical DiSCOs



Scattered, incomplete, inconsistent, and created at different times

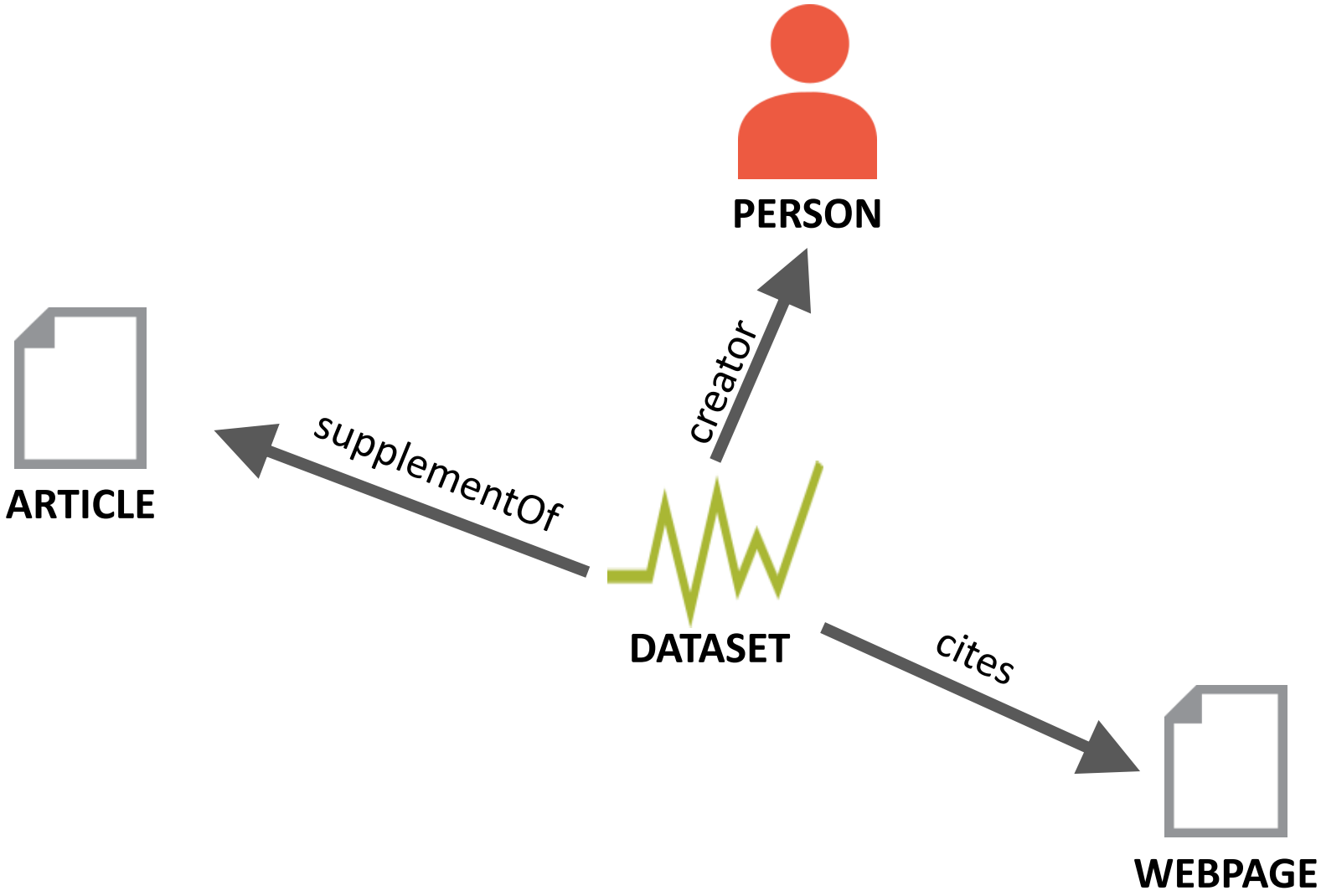
DiSCOs connect through shared identifiers



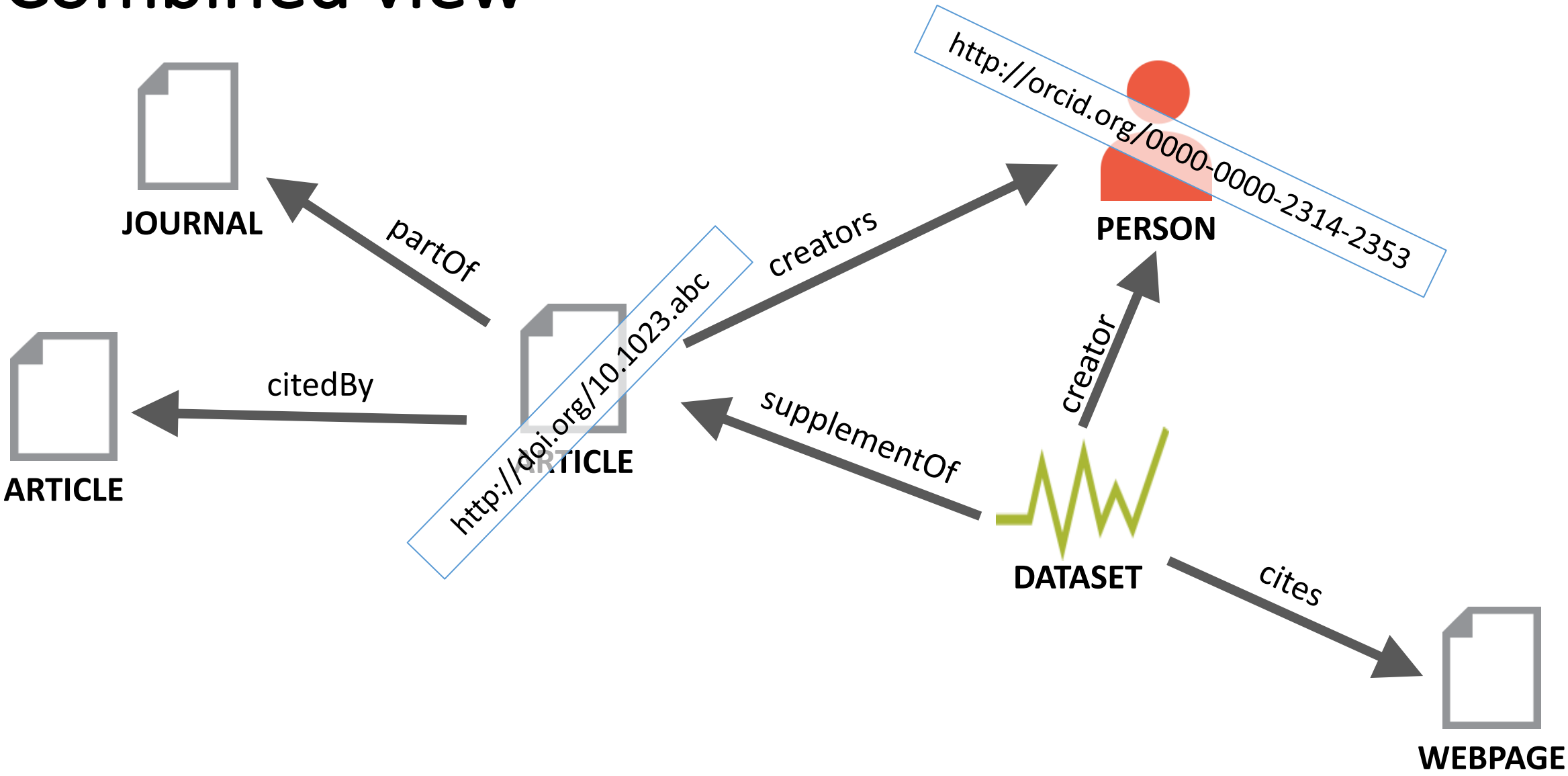
source: publisher

DiSCOs connect through shared identifiers

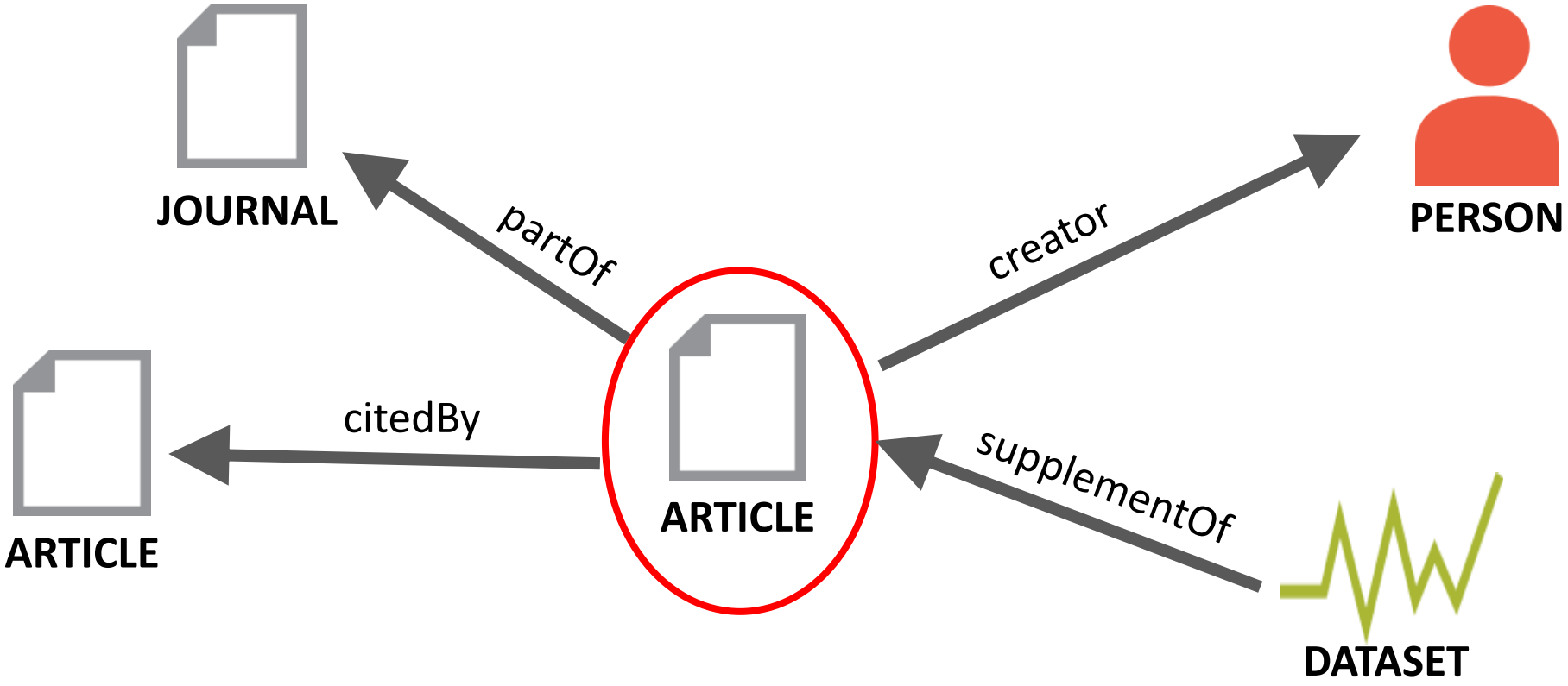
source: data repository



Combined view



View map from perspective or a single resource



graph view | table view

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

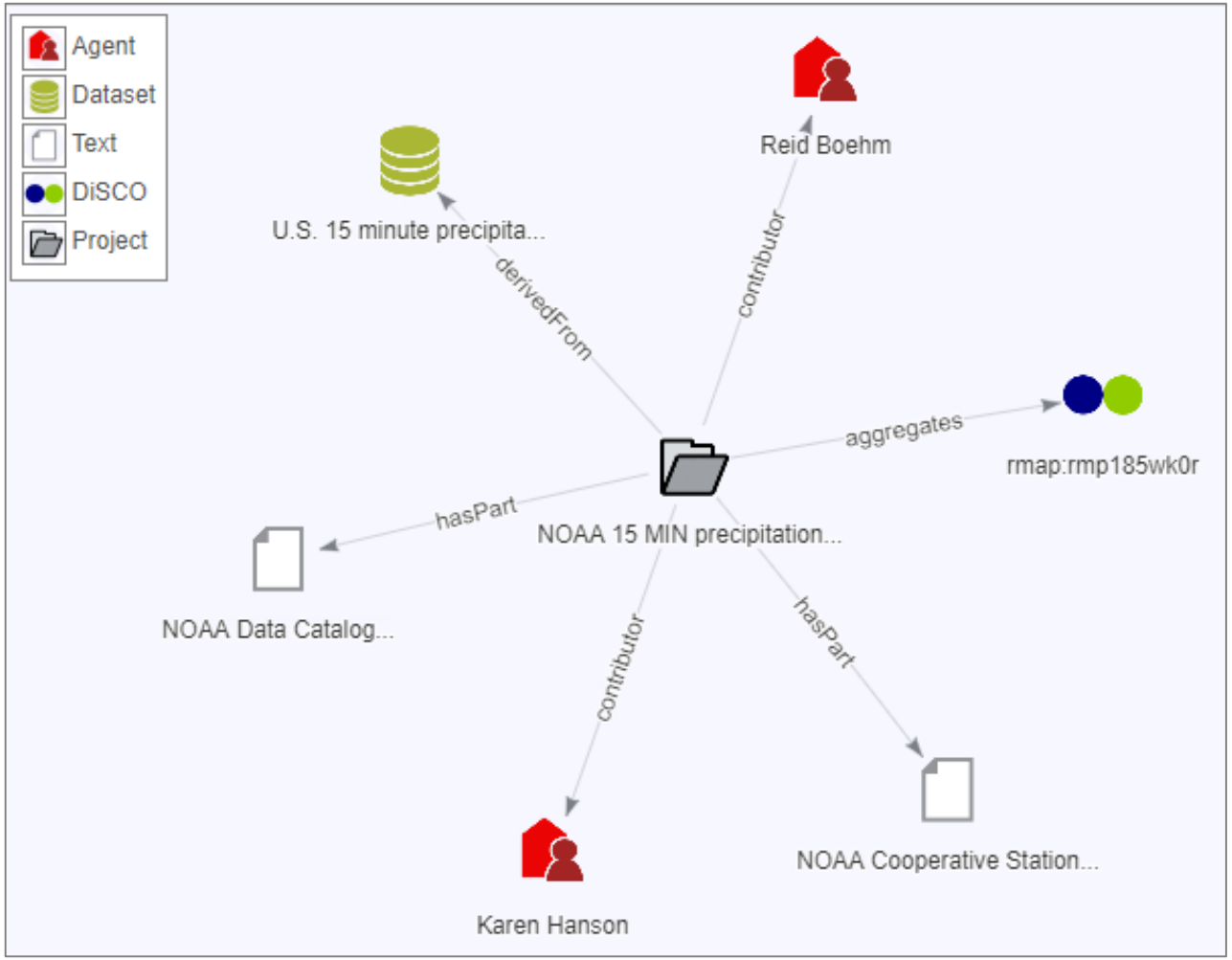
rmap:rmp4sspx2

rmap:rmp185ccpg

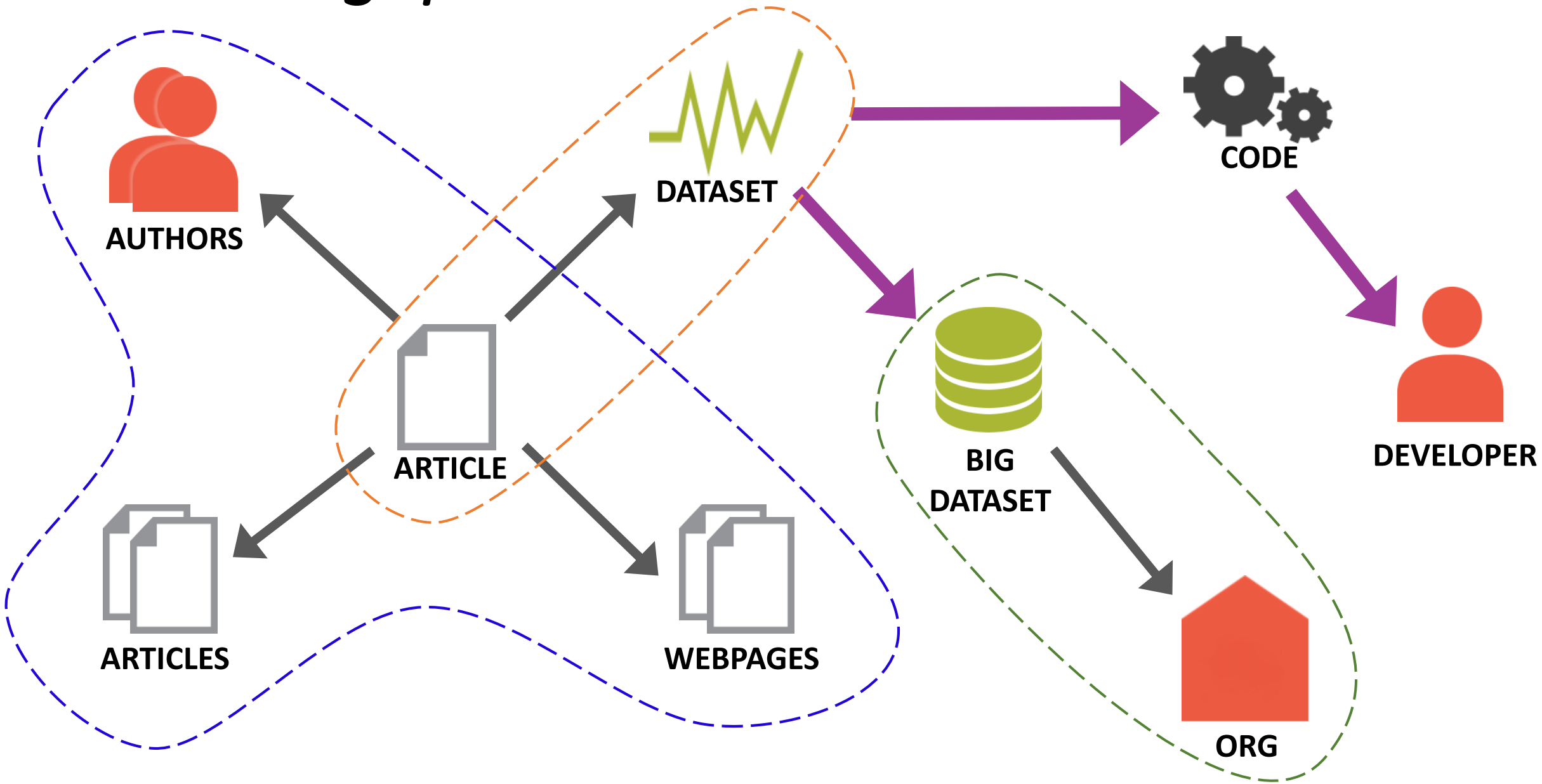
Current work, updates

GUI, API improvements

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



Mind the *gaps*



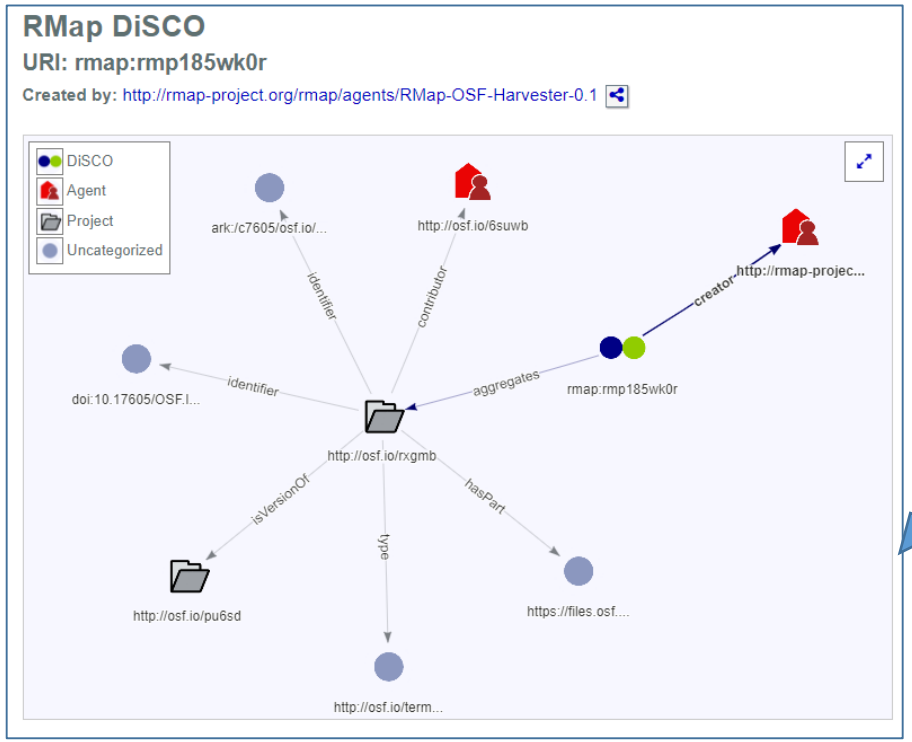
How can we use RMap to help fill in the gaps?

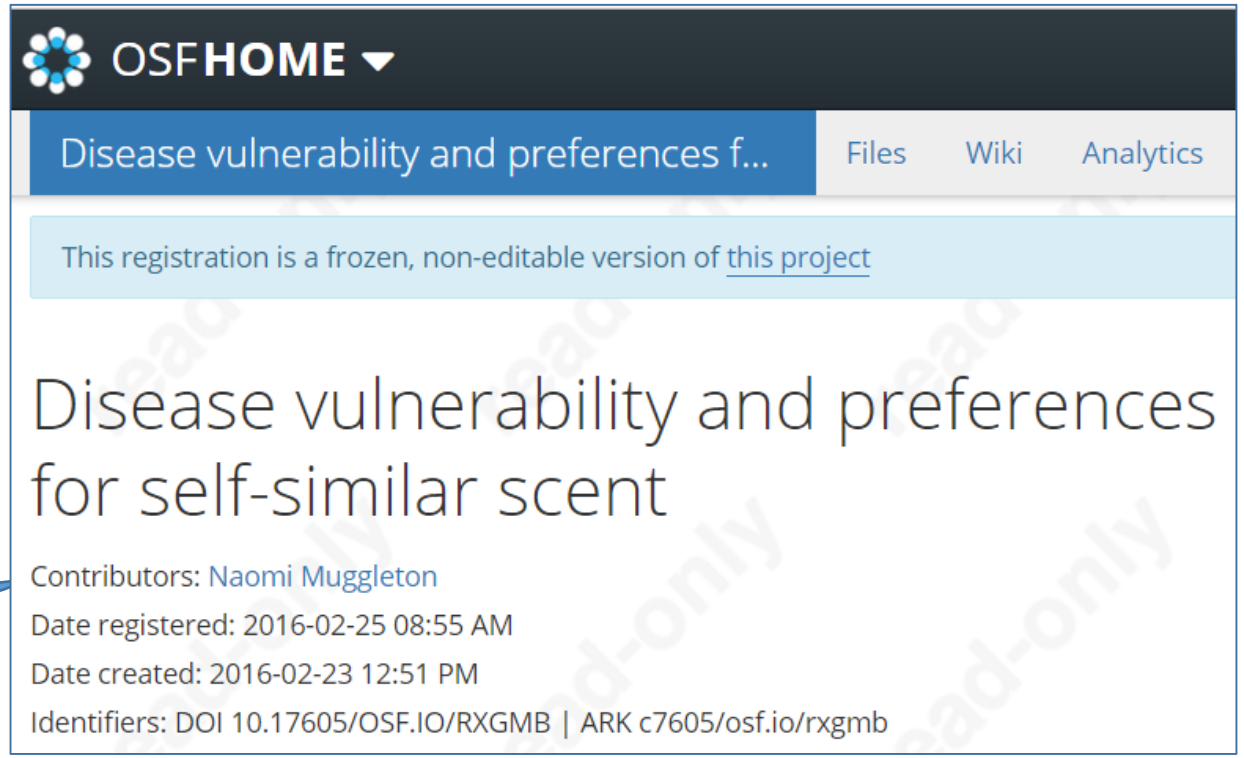
Create **convenient opportunities** for researchers to **enrich their map**

Pawel Loj. https://www.flickr.com/photos/limaoscarjuliet/3305886294/

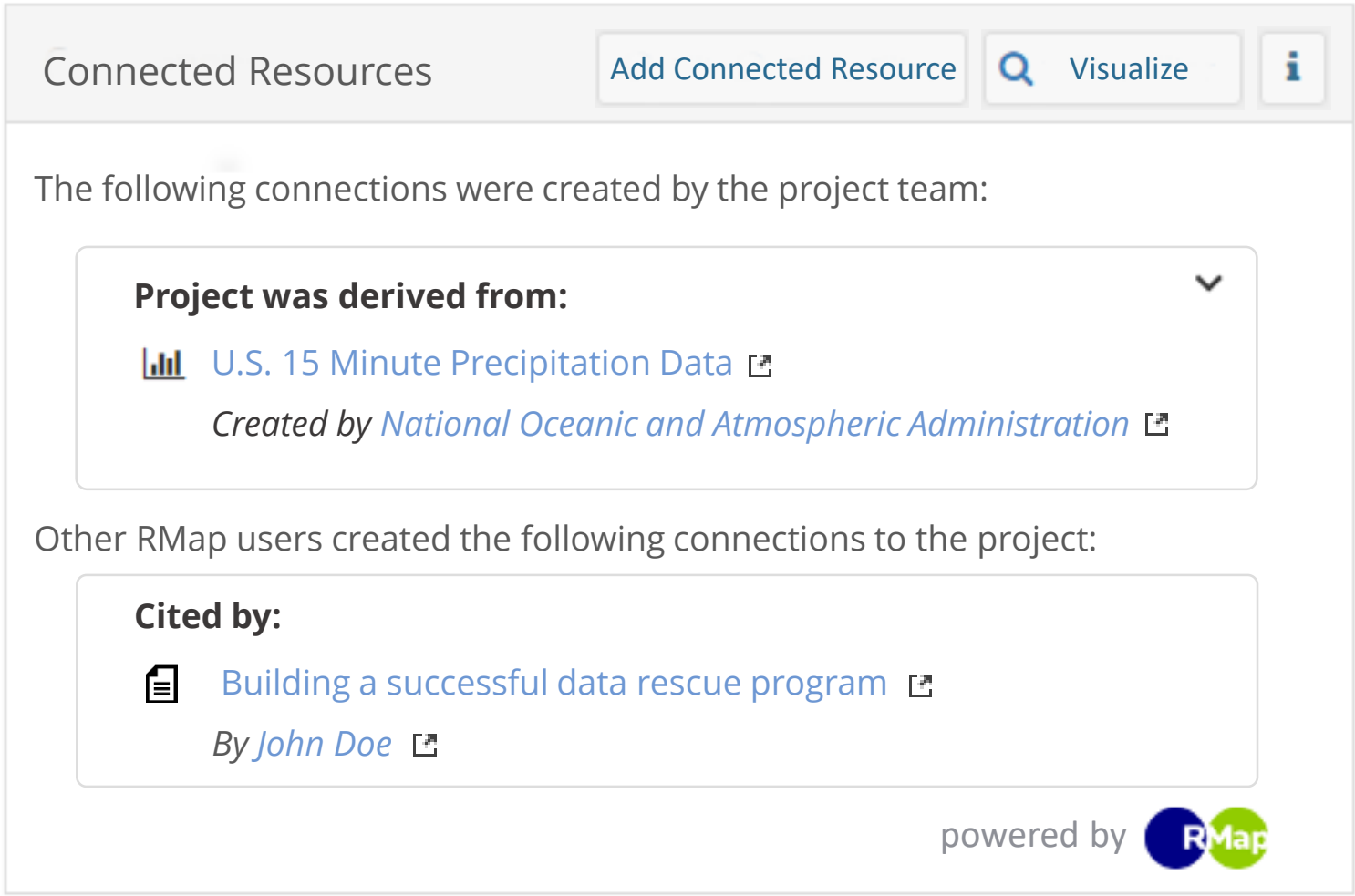
Open Science Framework

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

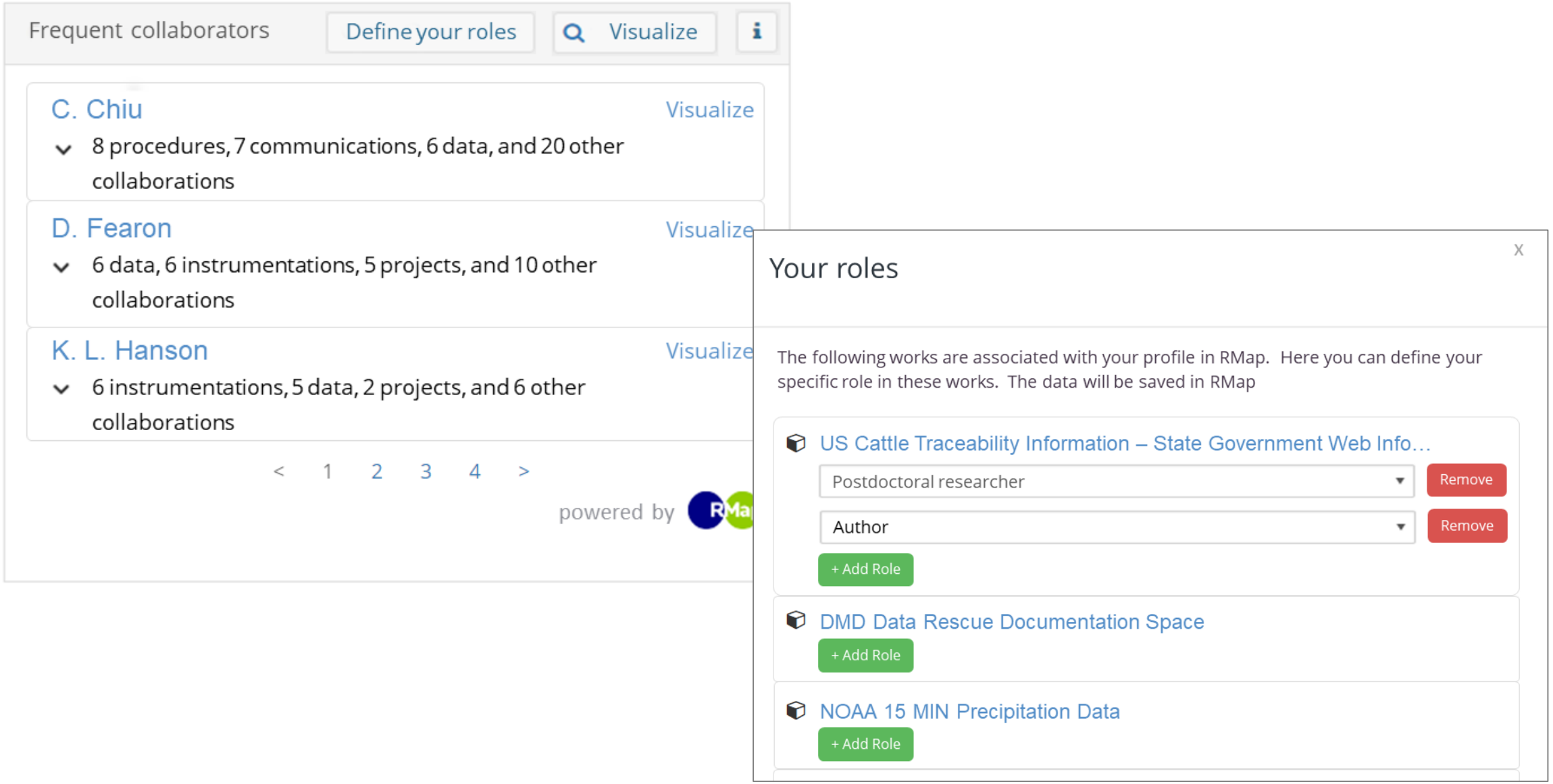




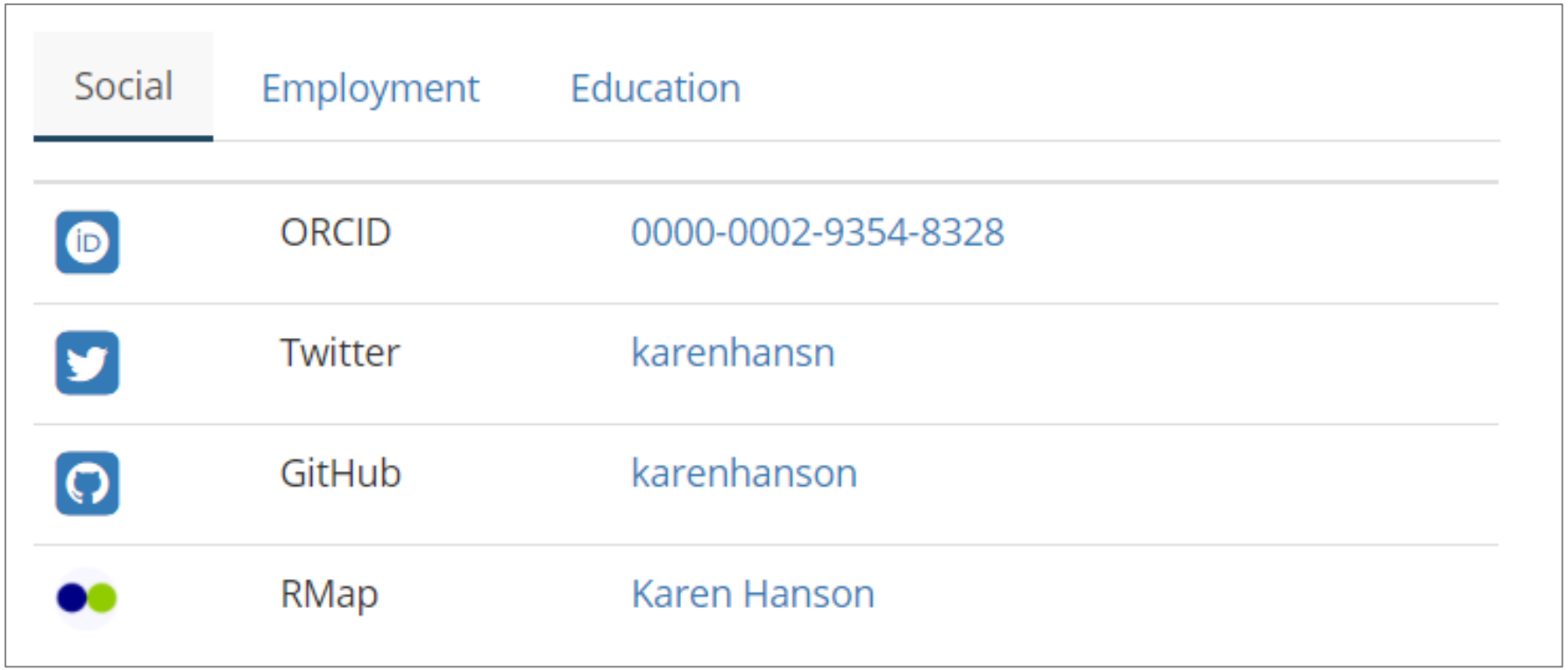
RMap-OSF: Connected Resources widget



RMap-OSF: Collaborators and Roles widget

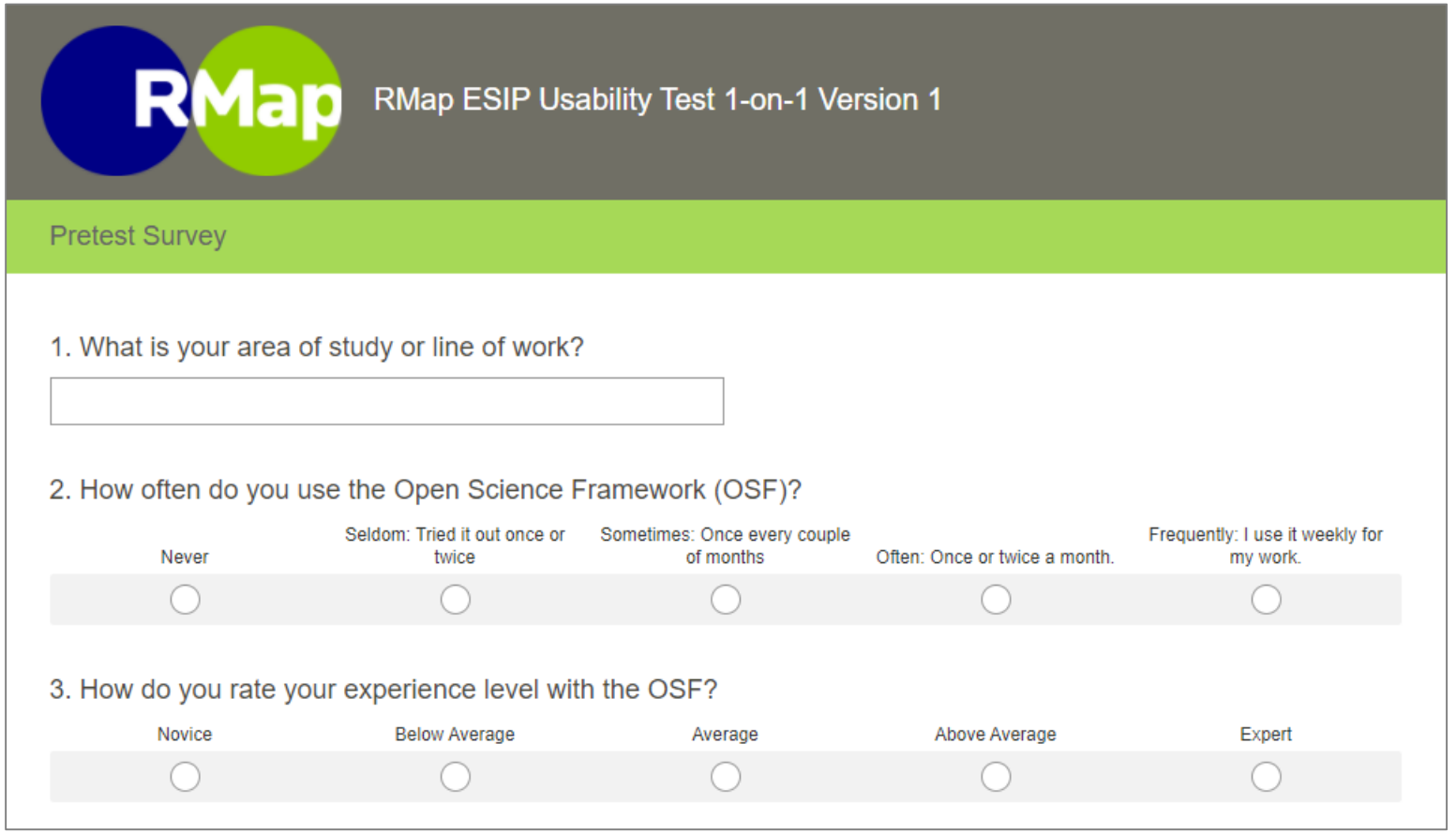


RMap-OSF: Social link



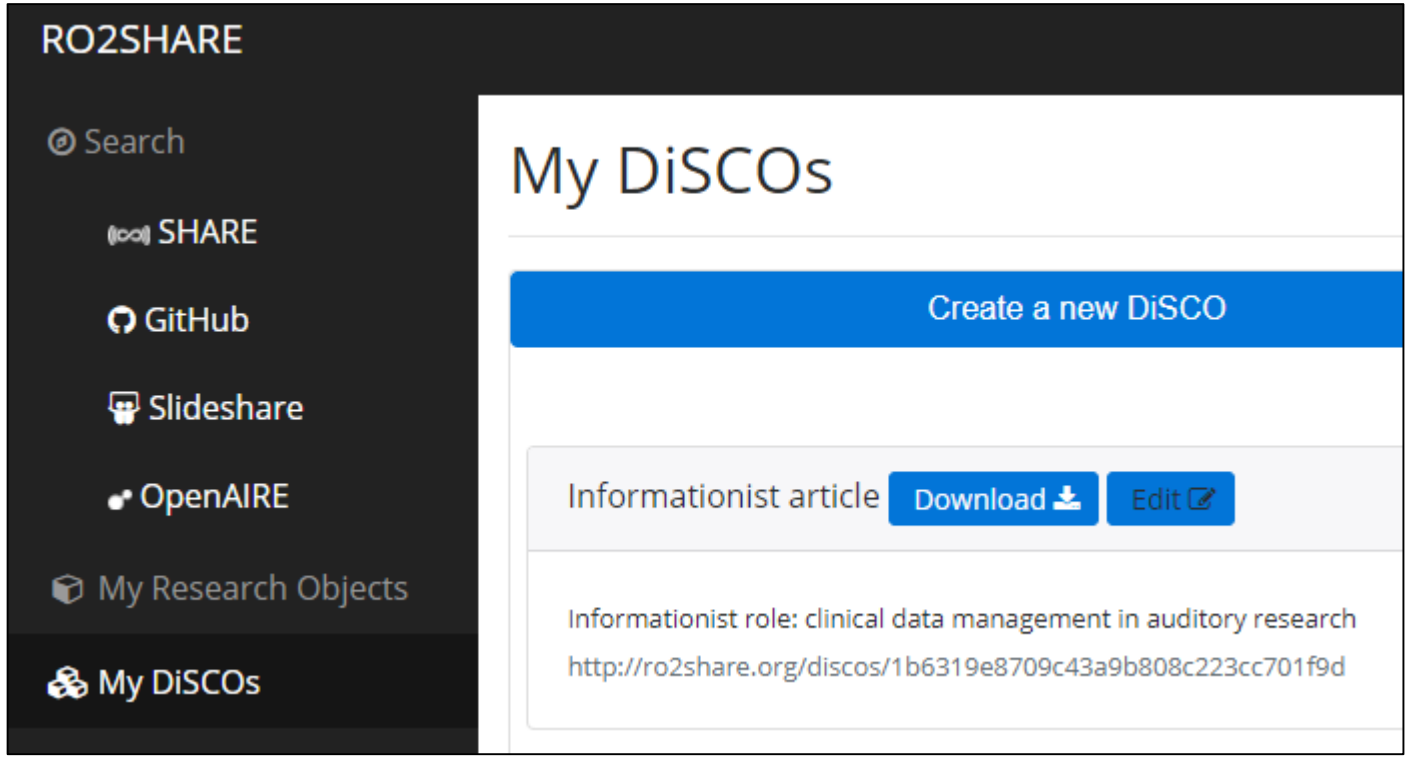
RMap-OSF: Usability testing

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

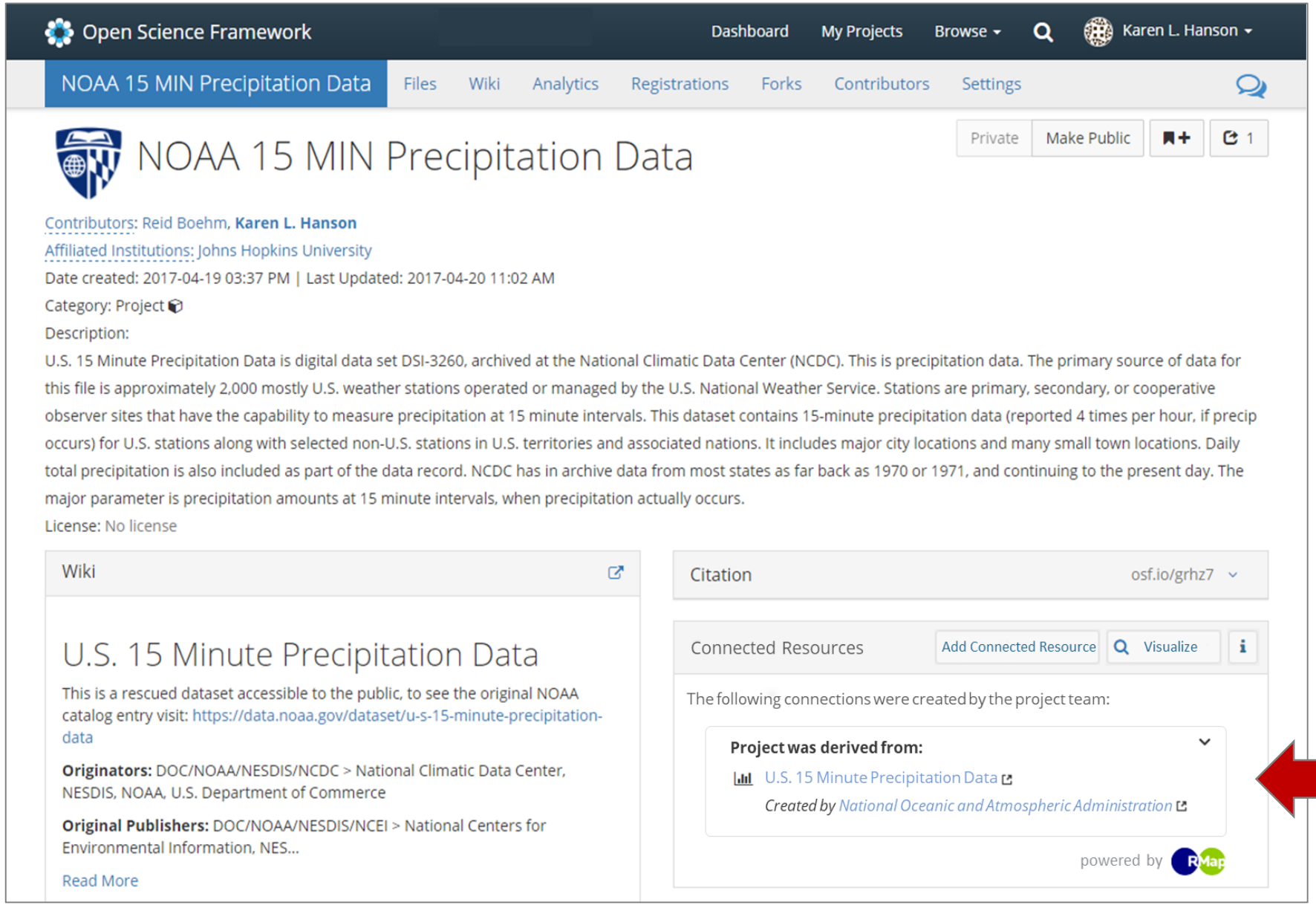


RO2SHARE

- 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



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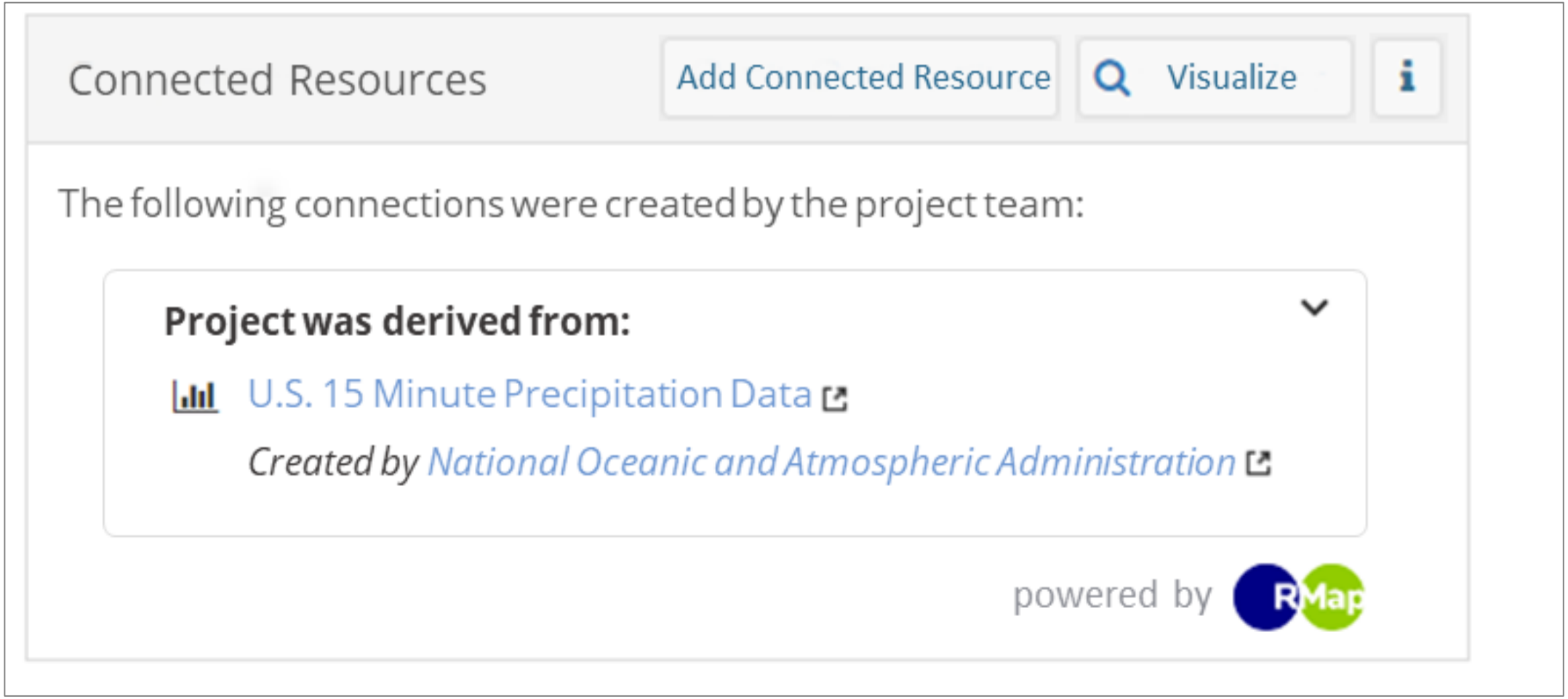

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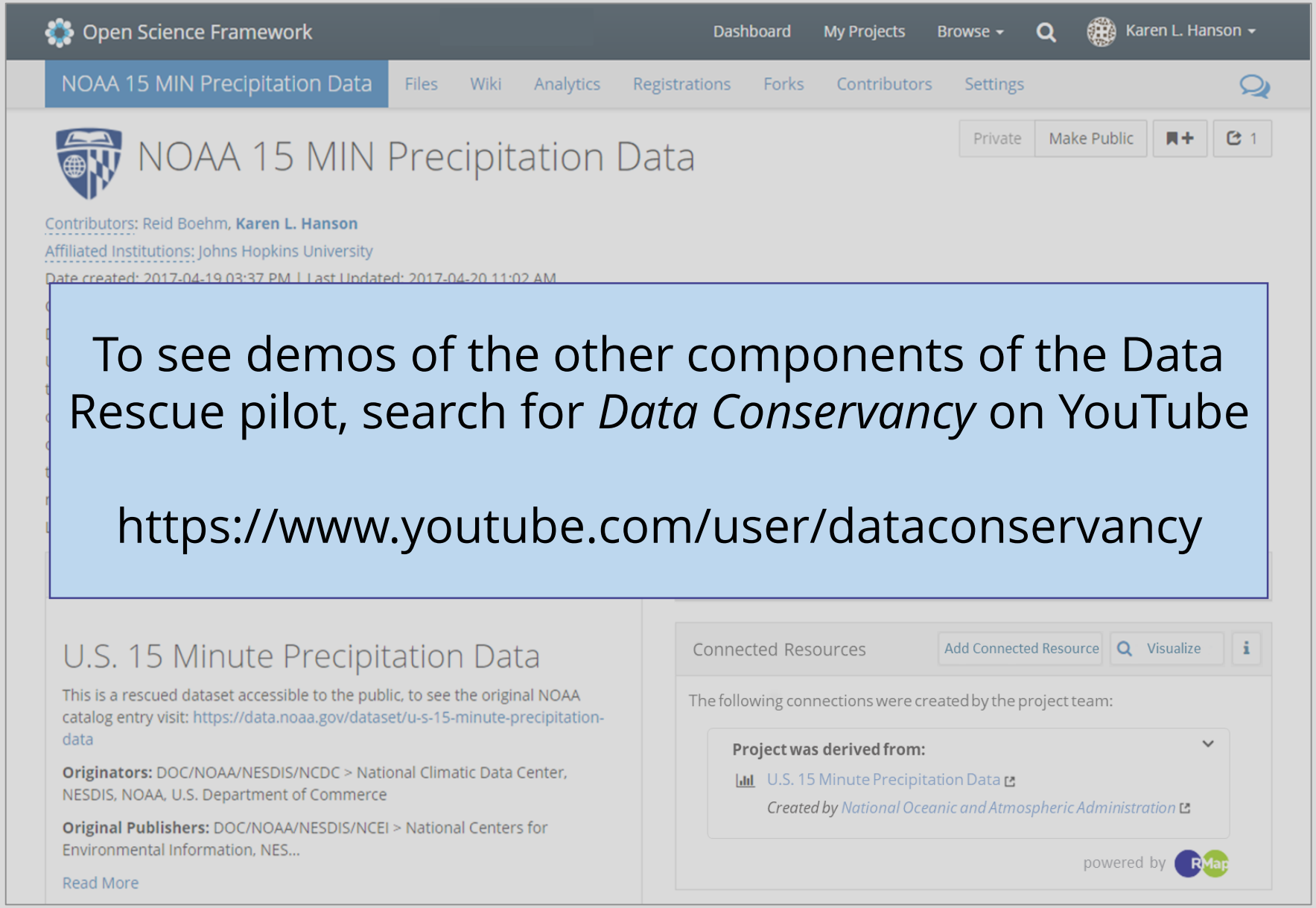
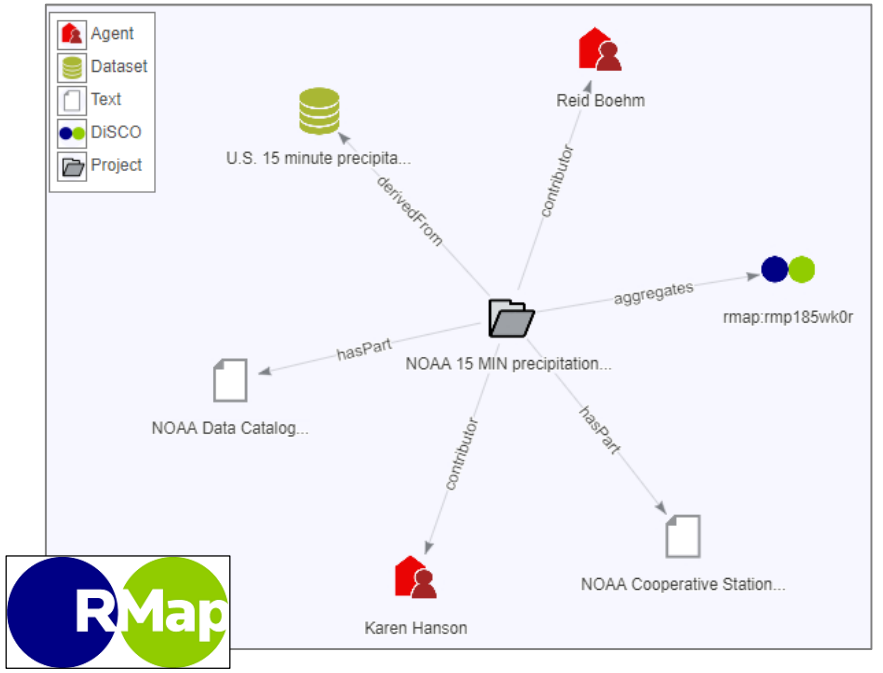


Resources

- 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

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- IEEE: Gerry Grenier (PI), Mark Donoghue, Renny Guida, Ken Rawson, Ken Moore.