

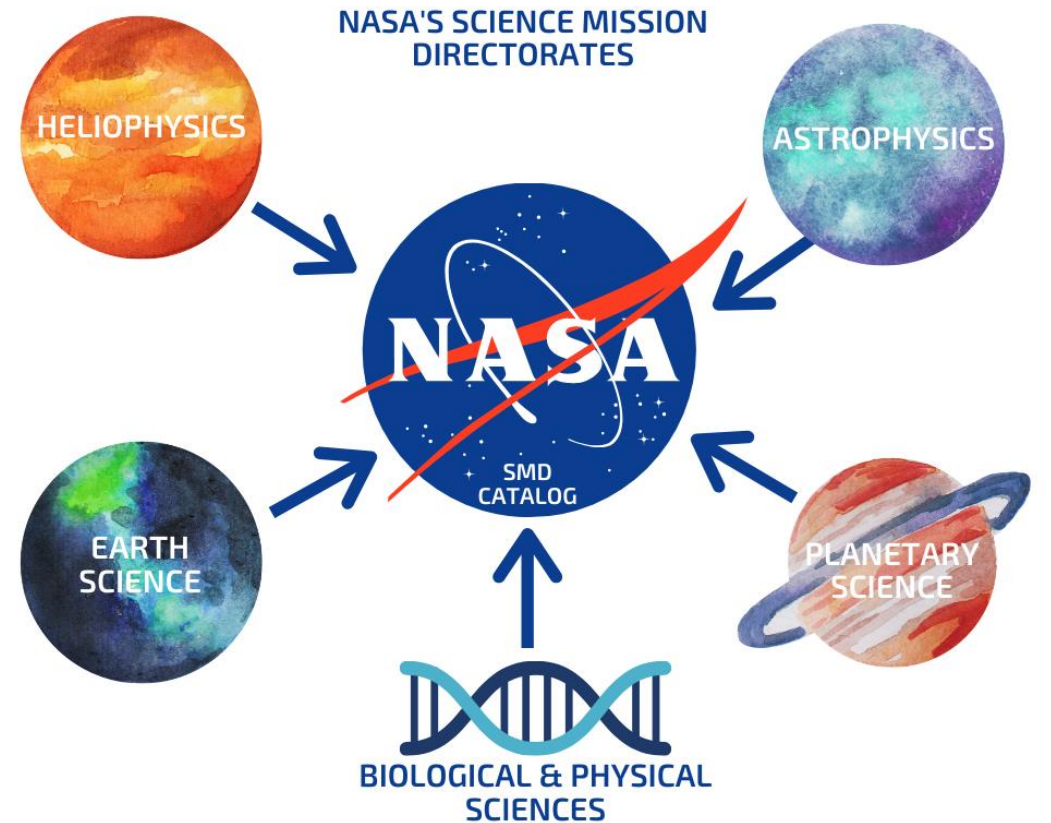
NASA's Science Mission Directorate (SMD) Catalog Project

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October 14, 2021



SMD Data Catalog Goals

- Develop and implement an SMD data catalog to support discovery and access to complex scientific data across Divisions.
- Create a community of practice around data and information standards.



Motivation: Enable collaborative interdisciplinary science

“When we try to pick out anything by itself, we find it hitched to everything else in the Universe.”

John Muir

Motivation: Enable Open Source Science

- Data is a key component in making science more open, transparent and reproducible
- Open data and information makes interdisciplinary and collaborative science possible
- Our data is a significant public investment that is also a trusted source of scientific data

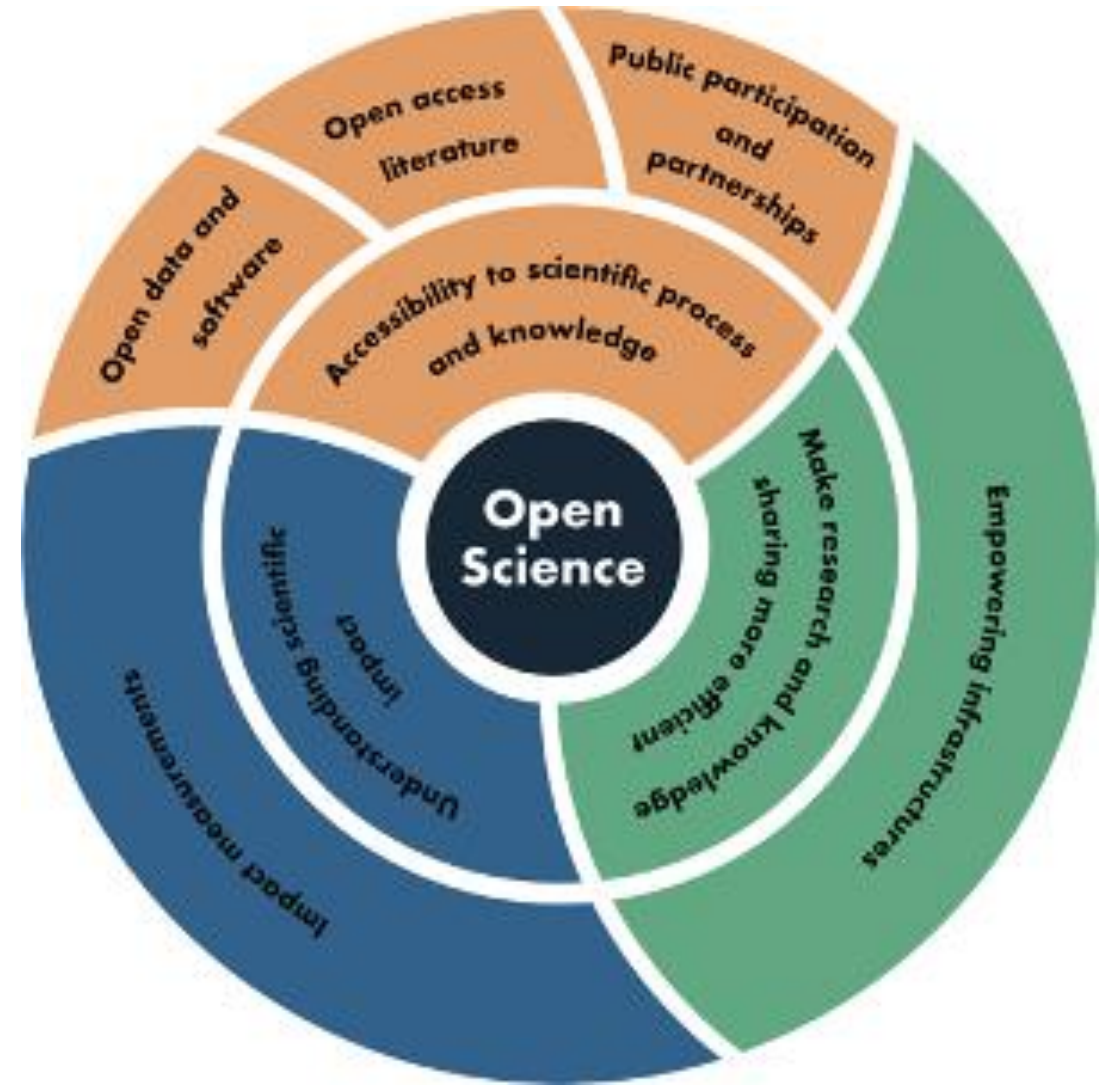


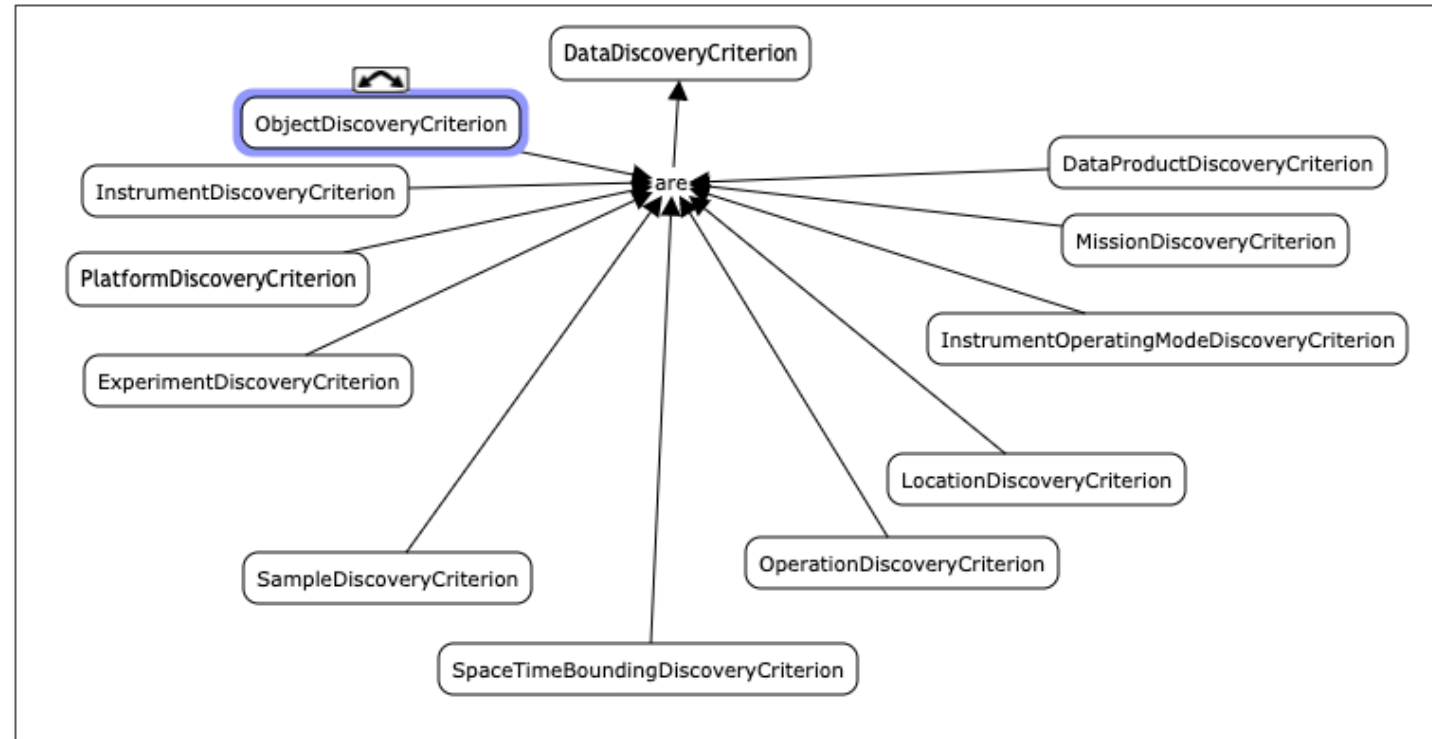
Figure Source: Ramachandran, R., Bugbee, K., & Murphy, K. (2021). From open data to open science. *Earth and Space Science*, 8, e2020EA001562.

<https://doi.org/10.1002/2020EA001562>



SMD Data Catalog: Accomplishments To

- Established a collaborative working group
- Collected 16 interdisciplinary use cases
- Conducted two deep-dive use case workshops
- Defined the common data discovery concepts across the 5 divisions
- Ran a series of prototyping efforts including a collaborative proof-of-concept with the Enterprise Data

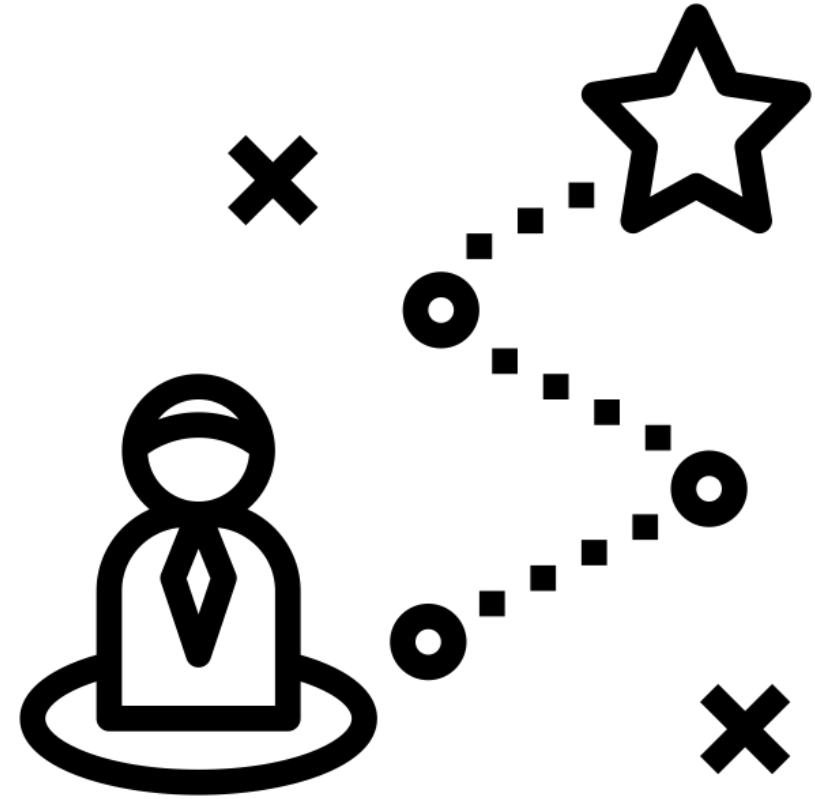


A subset of the SMD data discovery conceptual model.



SMD Data Catalog: Future Plans

- Roll out version 0 of the catalog over the next fiscal year.
- Develop a number of capabilities to support interoperability including an SMD wide vocabulary and schema matching across data models.
- Continue prototyping efforts to augment search capabilities.



Created by Nithinan Tatah
from Noun Project

Project Team and Collaborations

SMD Catalog Team

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