

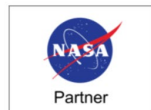
## More than just a Digital Library

Mugdha Polimera and The  
ADS Team

*ADS Users Group Meeting, 20-21 Nov. 2025*



CENTER FOR  
**ASTROPHYSICS**  
HARVARD & SMITHSONIAN



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ADS has evolved over the last 30 years...

... and yet most people use and think of only the search bar

In the process of this evolution, we have built so much *more than just a digital library*

1994

File Options Navigate Annotate Help

Title: NASA Astrophysics Data System (ADS) Abstract Service

URL: [http://adsabs.harvard.edu/abstract\\_service.html](http://adsabs.harvard.edu/abstract_service.html)

**Astrophysics Data System (ADS) Abstract Service**  
Astronomy and Astrophysics Database Space Instrumentation Database

What's New User Feedback Go to Settings

Authors (Last, F.I.):  SIMBAD Object Names  NASA/STI Keywords   
(one per line) (one per line) (one per line)

Publication Date:  
From:   To:    
Month (MM) Year (YYYY) Month (MM) Year (YYYY)

Enter Title Words:

Enter Abstract Text Words:

Retrieve  abstracts starting with number   
[Send] [Clear] [LST QUERY] [RIR QUERY] [ARTICLE QUERY] [DOC QUERY] [HELP]

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2018

Authors: (Last, First M, one per line) ☒ SIMBAD ☒ NED ☒ ADS Objects

☐ Exact name matching ☐ Object name/position search

☐ Require author for selection ☐ Require object for selection

( ☒ OR ☐ AND ☐ simple logic ) (Combine with: ☒ OR ☐ AND)

Publication Date between  and   
(MM) (YYYY) (MM) (YYYY)

Enter Title Words ☐ Require title for selection  
(Combine with: ☒ OR ☐ AND ☐ simple logic ☐ boolean logic)

Enter Abstract Words/Keywords ☐ Require text for selection  
(Combine with: ☒ OR ☐ AND ☐ simple logic ☐ boolean logic)

Return  items starting with number

2019

astrophysics data system

Classic Form Modern Form Paper Form

QUICK FIELD: Author First Author Abstract Year Fulltext All Search Terms

Recommendations

Search examples

# 5 Core Pillars of what we do

Curatorial Sciences

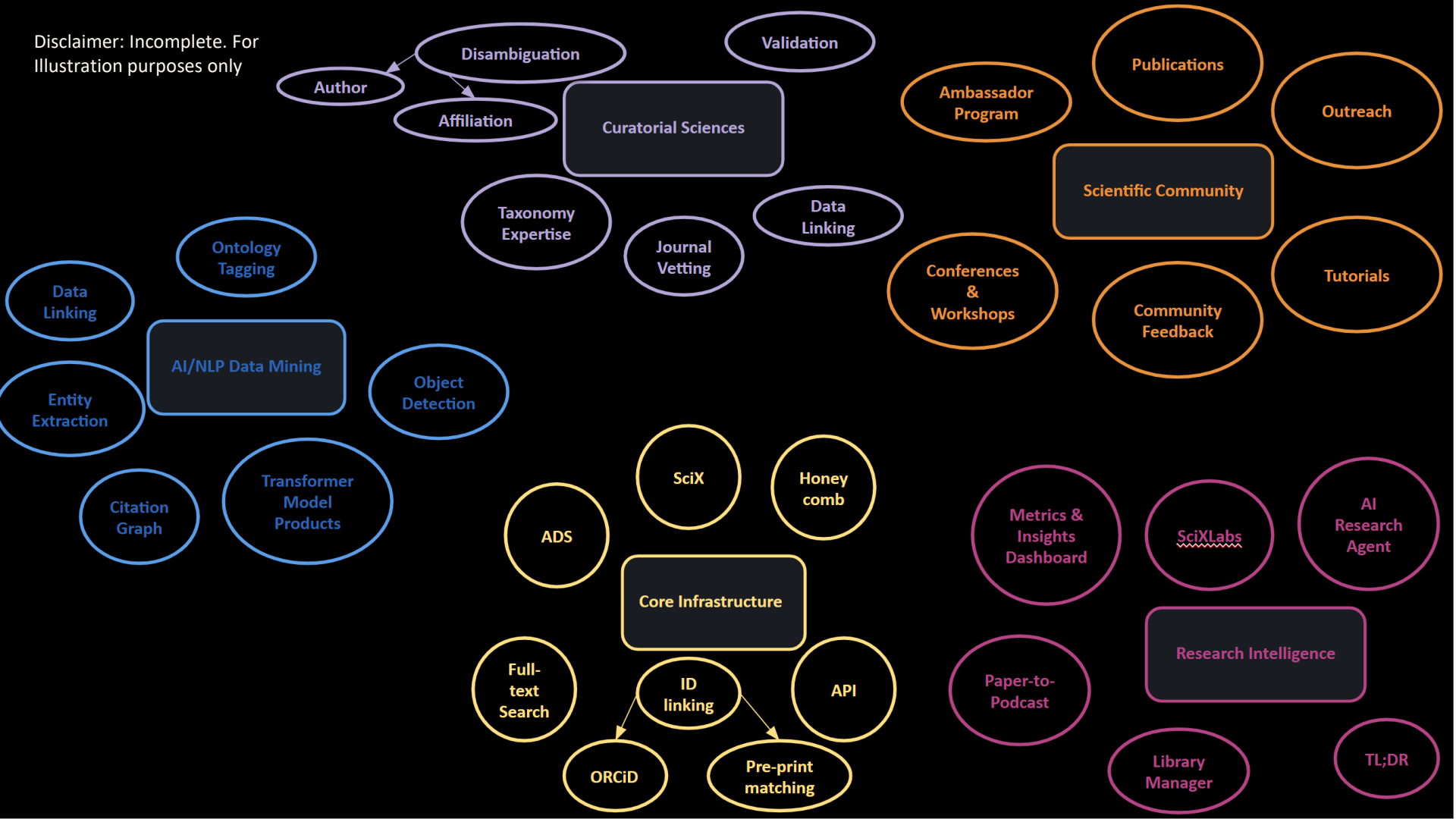
Scientific Community

AI/NLP Data Mining

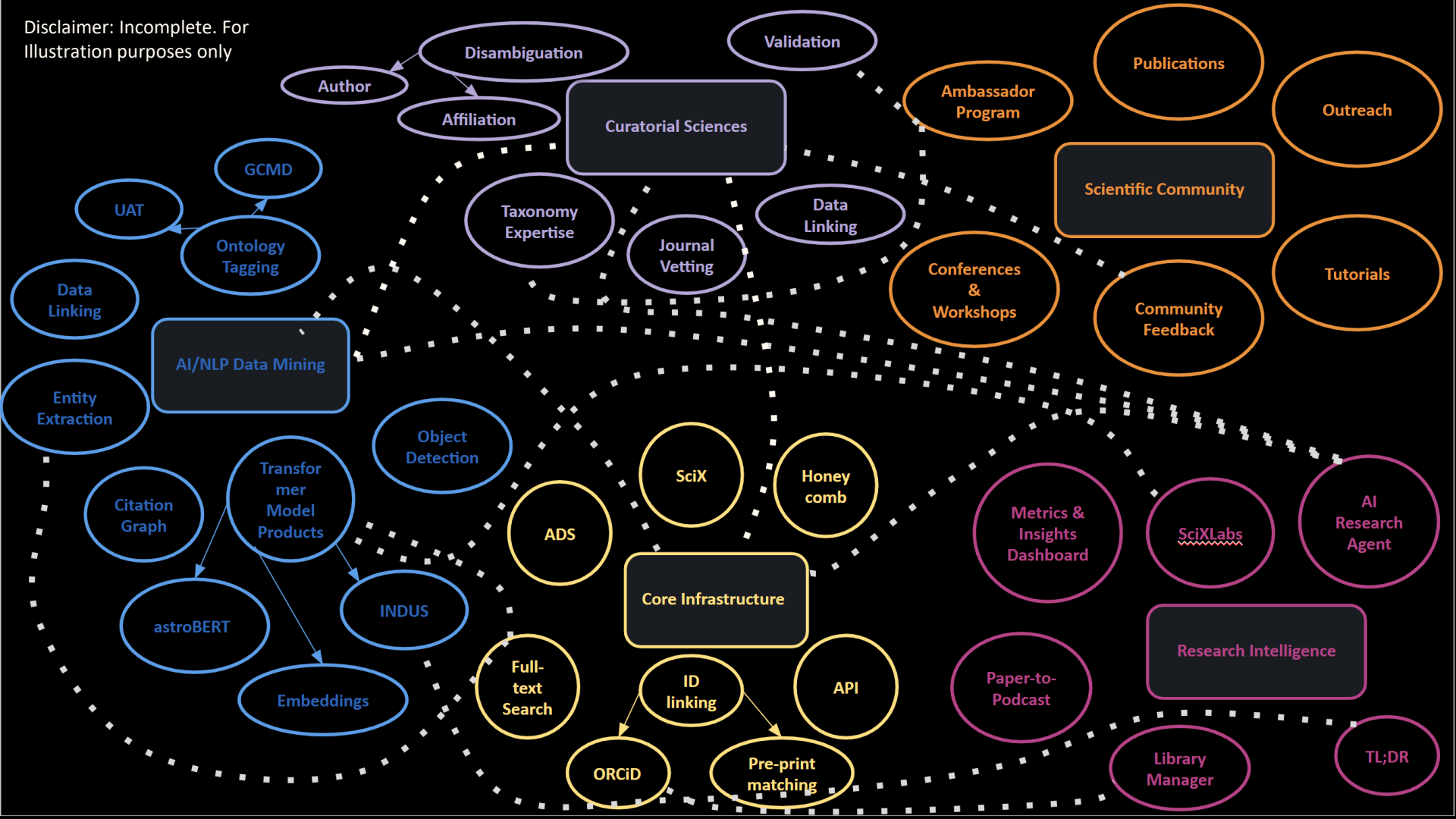
Core Infrastructure

Research Intelligence

Disclaimer: Incomplete. For  
Illustration purposes only



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Illustration purposes only





We have built a behemoth of **research infrastructure**, far beyond the popular ADS/SciX Digital Library interface



Our infrastructure could easily be a solid trusted base to build other tools and infrastructure for the scientific research community, especially as we seem to be [heading towards an AI-centered future](#) – **trusted, curated, and relevant** content from ADS/SciX will be the **perfect foundation** for any future AI system that supplement knowledge systems

What we want to do:

- ★ We want users, funders, collaborators, and partners to understand better what we do and *everything* that we have to offer.
- ★ Make it easy for funders to get highest ROI and use ADS/SciX infrastructure to build future tools instead of starting from scratch





**astrophysics** data system

We would like to showcase that we are *more than just a “Digital Library”*...

We are a team that builds research infrastructure and tools for the scientific community using information sciences, software engineering, and AI/ML techniques guided by expert curators and career scientists.

**NASA has spent ~50M USD in funding us for 30+ years.**

We would like to maximise the return on this substantial investment and position ourselves as *the team* to trust with building out future tools and services, by leveraging all the progress we have made over three decades

Questions?