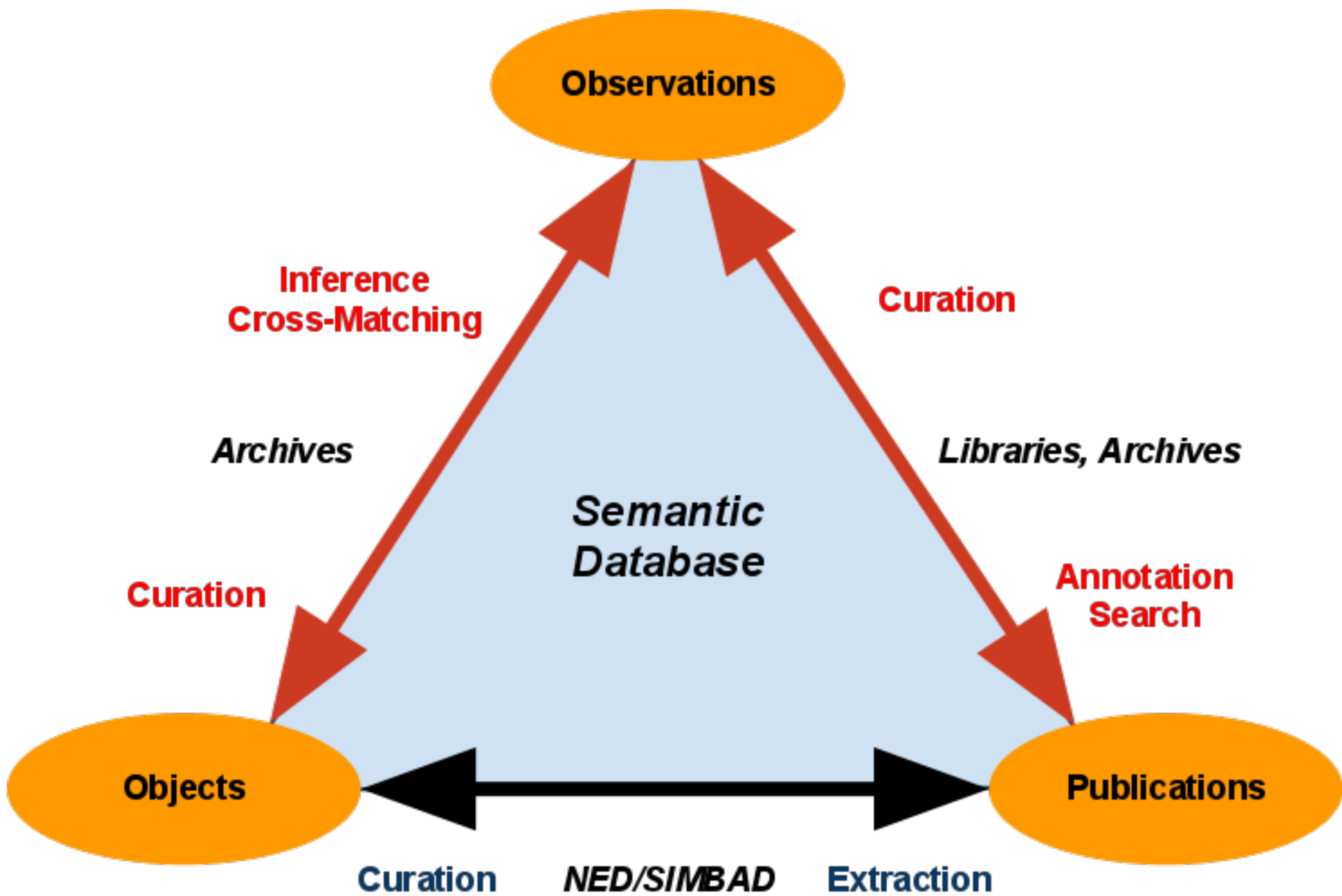# VAO AstroExplorer Update

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Aim

- **Research Portfolio App to browse Resources, Concepts**
  - Connect Publications, Objects, Datasets, Proposals
  - Focus on Pointed Observations from missions, archives
  - Incorporate bibliographic, object metadata
- **Science Functions: Explore, Search, Filter, Save**
  - Provide views of Publications, Datasets, Objects, Proposals
  - Complement Portal: do not replicate positional search
  - Promote data reuse, research repeatability
- **Generate Metrics**
  - App will additionally be useful for librarians, program managers, funders, etc, as linkages can be used to evaluate impact
- **LESS IS MORE:** Keep signal to noise high

Leverages

- **ADS Curation and Technology framework**
  - ○ Bibliographic Ontology Development
  - ○ Expertise in indexing faceting technologies, developments of ADSLabs (http://adslabs.org)
  - ○ ADS personalization/login system
- **Curation efforts at Astrophysics Data Centers**
  - ○ Datasets from Chandra, MAST, soon other data centers
  - ○ Object metadata from SIMBAD, soon NED
- **VAO Standards, Infrastructure**
  - ○ Standards and protocols: ObsTAP
  - ○ Our own curation: nontrivial, painstaking and necessary (more in demo)
  - ○ Eventually: single sign on, portal, VOSpace

Where we are

- **Infrastructure**
  - Base, Publication, and Observational Ontology
  - Modeling of instruments, tracking of provenance
  - Technology: Sesame/SOLR/node.js/bootstrap
- **Curation**
  - Workflow for metadata ingest from ADS, CXO, MAST, CDS. Next: NED, other data archives
  - Cross-linking of targets, objects, proposals, publications
- **Application**
  - Prototype User Interface allows bibliographic search with filtering through data, objects, proposals
  - Just added: view, search observational metadata
  - Bookmarking of data products, saved searches

Demos / Links

- **AstroExplorer Stable**
  http://adslabs.org/semantic
- **AstroExplorer Alpha**
  http://adslabs.org/semantic/alpha/explorer/publications
- **Screencast**
  http://www.youtube.com/watch?v=IgFU_ehtBkU
- **Support**
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Summary

- Paradigm: Harvest, Index, Link, Curate, Publish
  - We are very aware of signal to noise issues: GIGO
  - Application exposes underlying metadata issues
  - Content will improve over time, as more curation is done (but user expectations must be set)
- Success:
  - Scientist explores concepts, relationships, finds data
  - Librarian, archivist generates metrics, improves curation
- Long-term goals:
  - Complements positional search, covers all VO-enabled archives, exposes data properties in intuitive way
  - Infrastructure for Portal, other VAO apps to use
  - Personalization, integration with VAO discovery tools and ADSLabs