A unified astronomy thesaurus

Norman Gray, University of Glasgow CoSADIE Tech Forum, Edinburgh, 2013 January 16

Alberto Accomazzi (ADS/Harvard-Smithsonian, US)
Chris Biemesderfer (American Astronomical Society, US)
Mark Cassar (American Institute of Physics, US)
Chris Erdmann (Harvard Libraries, US)
Norman Gray (Glasgow University, UK)
Graham McCann (Institute of Physics Publishing, UK)
Justin Soles (McGill University, Canada)

origins

- Journal keywords (90s-present): 374 items, 13 top concepts, loose hierarchy
- PACS (AIP): 589 astro terms, 6 top, 4 levels
- IAU thesaurus (1993): 2551 terms, 274 top, comprehensive, rarely used
- IVOA thesaurus (mid-2000s): Rick Hessman's updating of IAU93



- AIP and IOP separately (it turned out) commissioning updated all-physics thesauri
- ...which incorporated the existing astro thesauri
- Merged, and the astro portions donated to AAS
- AAS has released (January 2013) an early draft, and is thinking about process
- IAU Commission 5 has nodded its blessing



features

- 2305 terms, 15 top, 224 related, majority 2–4 levels down
- Open: CC-BY-SA
- Interoperable: SKOS, but other formats as appropriate
- Community-supported: publishers, learned societies, and, we hope, the community at large

norman gray

use cases for ads

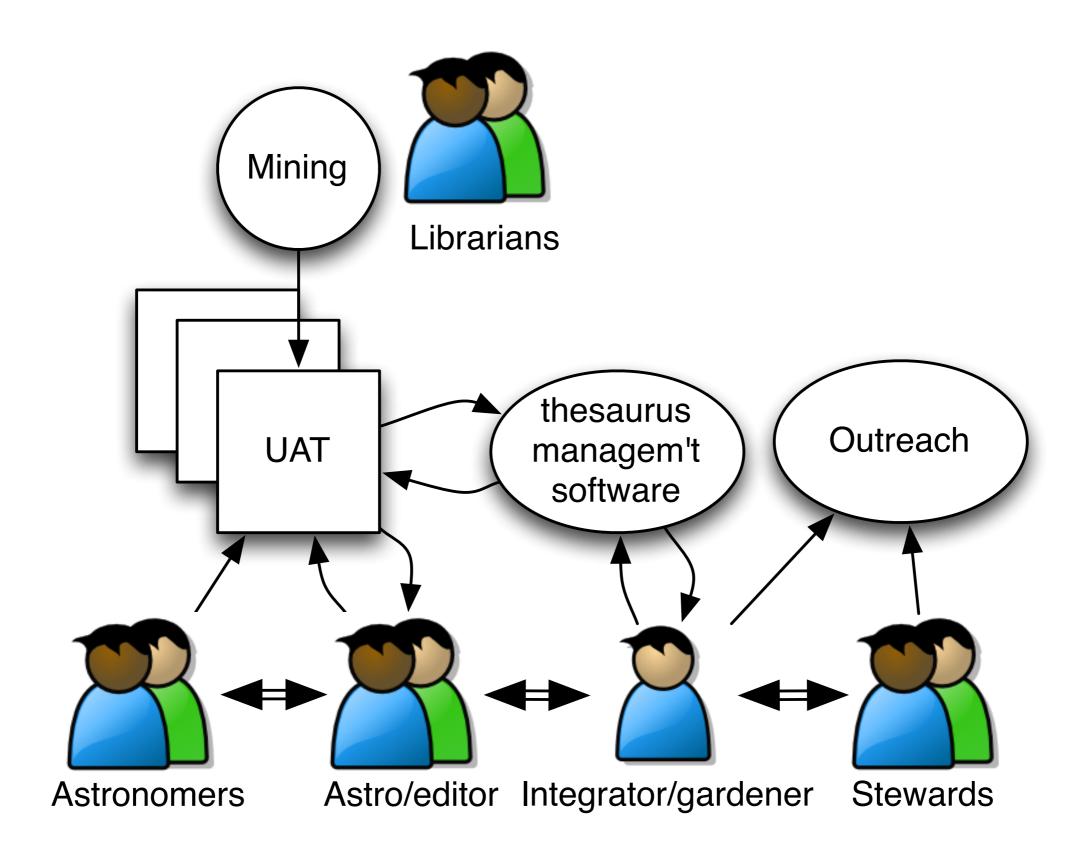
- A consistent keyword system covering all publishers represented in ADS
- Text-mining ADS's full-text, building on thesaurus concepts
- Semantic query expansion
- Intelligent faceted filtering
- Recommendations and notifications



use-cases for publishers

- Pass good metadata to ADS; helps discoverability
- Enhance end-user experience in a publisher-agnostic way
- Richer links to datasets
- Experiment with thesauri; think about ontology possibilities
- Create links to grants and funders (eg FundRef)





http://astrothesaurus.org

https://groups.google.com/d/forum/uat-users