**What is KAOS?**

**Knowledge-Advancing Organization Systems**

A tool enabling exploration and discovery of the controlled vocabularies we use to organize and describe our universe.

**Purpose**

- To serve as a repository of metadata standards from every domain.
- To visually represent the evolution of and relationships among the metadata vocabularies.
- To provide a platform for querying, analyzing, and extracting data about metadata.

**Design**

- A web-based front end provides access to the repository and a platform for analysis.
- When fully functional, KAOS will store and publish metadata as linked data.

**Challenges**

- Interoperability
- Versioning
- Scope and scale

**Selection**

- Collect metadata vocabularies from both individual publishers and metadata registries.
- Most standards are made freely available in an XML or XML-compatible formats.

**Storage**

- Use XML database, eVist-db, to store vocabularies represented as XML, XML schema, RDFXML, and RDF schema.
- XML databases preserve structural information in the metadata files that would be lost in a relational database.

**Transformation**

- Extract terms from structural metadata with an XSL Transform, enabling automated text analysis.

**Analysis**

- Run term lists through text analysis software.
- Produce metrics for each metadata vocabulary and comparative metrics for multiple vocabularies.

**Visualization**

- Use Excel and other data presentation tools to create meaningful visual representations of data.

**Next Steps**

- Automate ingest and transformation processes.
- Update and expand the collection.
- Establish long-term storage, maintenance, and infrastructure plan.
- Develop interactive visualizations and other functionalities for the user interface.

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