RDA Research Metadata Schemas Crosswalks

ITO-RDA Crosswalk Visualizations

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RESEARCH DATA ALLIANCE

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ITO-RA Deliverables

- The International Technology Office Research Associate work package for promoting and facilitating the implementation of Schema.org
    - My deliverables are threefold: Contribute to the Research metadata schemas RDA WG,
    - Interpret RDA deliverables in the Canadian context and socialize the outputs by engaging with WDS members
    - Identifying best practices and pathways towards semantic syndication.

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ITO Strategic Plan

- The ITO is currently defining our 2020-2025 Strategic Plan
- The International Technology Office commits to focusing on this singular driving force for all work moving forward from this plan by prioritizing infrastructure built for the scientific study and amelioration of climate change. This stance is consistent with ONC's expertise and strategic plan, the University of Victoria's goals to engage globally, especially when promoting sustainable futures, and provides an excellent focal point for the Data Together cohort

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RDA Research Metadata Schemas WG

Output 1: Data Model
- A generic ‘conceptual data model’ with essential types and properties for research data discovery over the web.

Output 2: Producing a Guidance Document

- A guideline, illustrated with common patterns, of common patterns for publishing metadata landing pages with structured data markups; and a guideline of how to customize the research schemas for target domains with examples.

Output 3: Toolings
- Toolings for making the implementation easier if resources are available.

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Roadmap for:

A. WG outputs

B. Visualizations https://rd-alliance.github.io/Research-Metadata-Schemas-WG/

- ~15 Metadata Schemas mapped
- Crosswalks currently included: DCAT-AP,DCATv2, Datacite, ISO19115, EOSC/EDMI, Dataverse, DATS, RIF-CS, DC, Bioschema, B2Find, DDI, ECRIN, CODEMETA, SPASE

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B. Visualizations – Filter Table

- Schema Filter table provides a 1-to-1 mapping of metadata terms to schema.org
- Utilizes the top level of Schema.org
- Identifies any missing terms (from the schema or from SDO suggested terms) with no currently mapping

ISO-19115:2003

ISO-19115:2003	Resource abstract	Resource identifier	Resource title(M)	
Schema.org Property	description	identifier	name	alternateN
Schema.org Parent Type	schema:Thing	schema:Thing	schema:Thing	schema:Th

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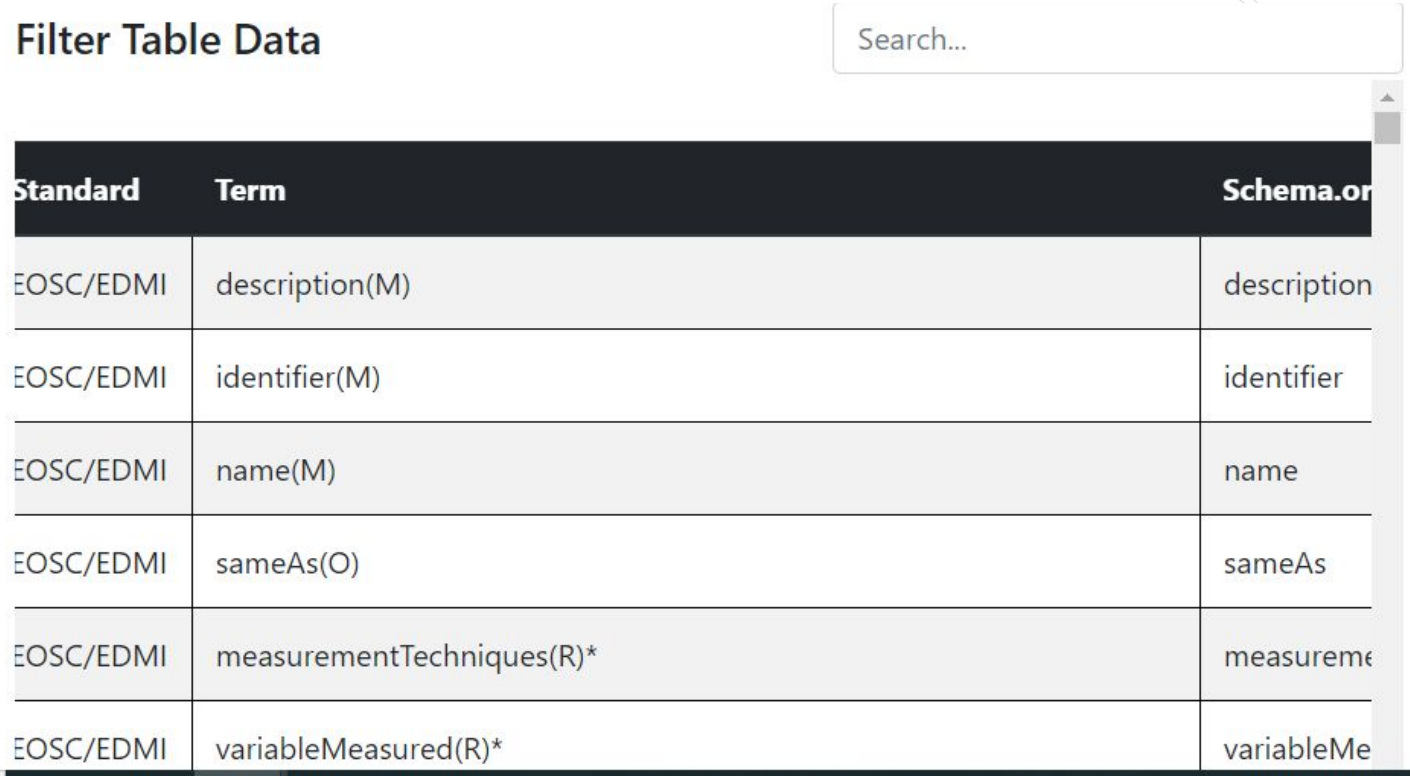
B. Visualizations – Search Table

- Table is a free text search over both metadata and schema.org properties
- Table will pull all related metadata terms for associated property searched
- For example: a search for “publish” will not return records, but the search for ‘publish’ will return ‘datePublished”, “publisher”, “Dataset Publisher”



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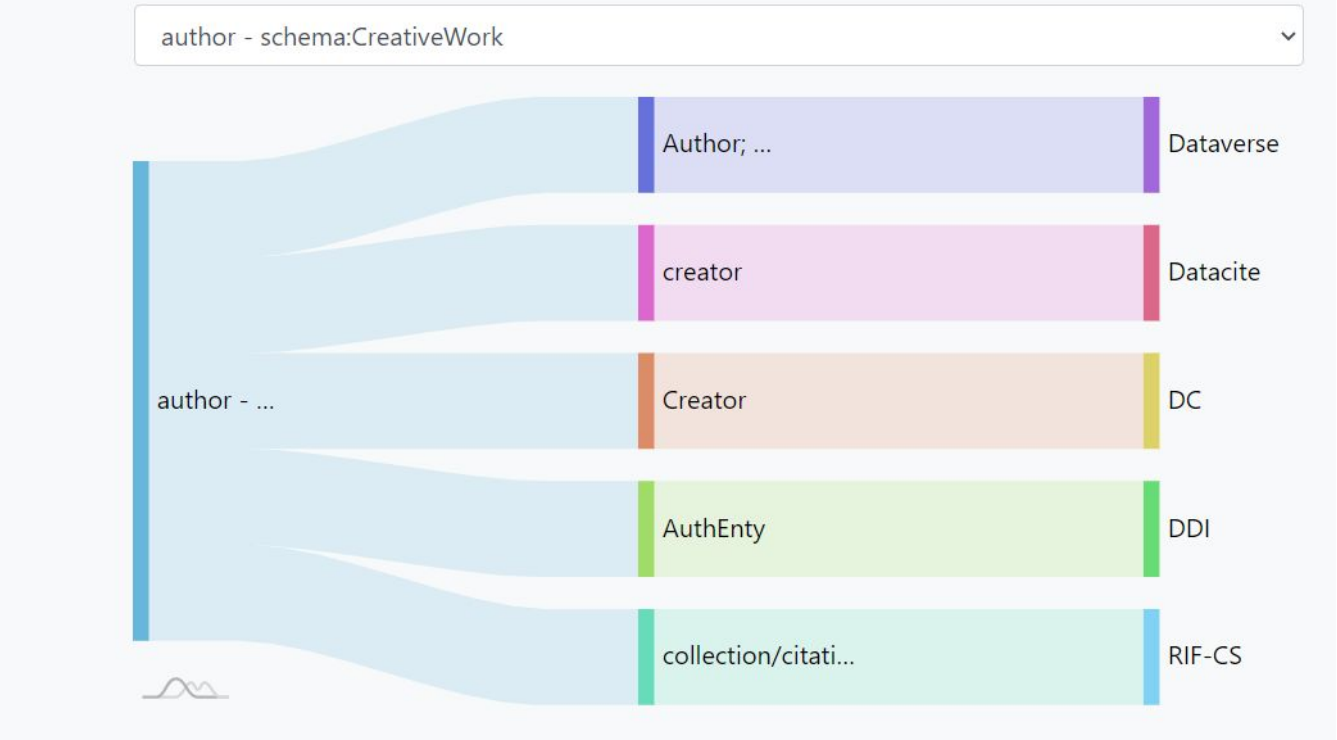
B. Visualizations – Sankey Diagram

- This filter allows you to choose a schema.org property and see which (if any) crosswalk term is connected to which standard.

From left to right labels go:

Schema.org properties □ Crosswalk Term □ Metadata standard



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B. Visualizations – Gap Analysis

- Gap Analysis gives a visual representation of terms within the metadata standards that did not have a schema.org property.
- By hovering over the metadata standard name, it will display a numerical value

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Feedback for Visualizations

RDA Plenary 16 – Feedback

- Gap Analysis: Include commonly missed terms/ analysis from SDO and/or schemas
- Sankey Diagram: Pop-out window to replace the ‘hover’ feature
- Home for crosswalks: RDA-endorsed FAIRsharing/OBO/ARDC/ UofBath

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B. Visualizations - Option 3 – Finding a ‘Home’

- Clean up the collated mappings
- Migrate it to a more sophisticated back end (Airtable?)
- Create support for versioning and user contributions so that the community can continue to add more crosswalks

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B. Visualizations - Option 3/4 – Further Development

- Other graphs or visualizations to be included?

Examples:

- Extension visualization (science-on-schema / bioschema)
- Auto updated from living table

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Seeking out other crosswalks and toolings

- Any other schemas currently mapped that can be added to the list?
- Current toolings for Data Managers to use for semantic markup?
- Problems/comments/concerns for SDO mark-ups?

Example:

- If repository A is being harvested by repository B who already has with SDO semantic mark-up added, is it beneficial for the initial repository to complete the SDO mark-up?

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Questions/ Next Steps

- If anyone can identify any semantic help that the ITO can provide to the international community, we are welcoming ideas and feedback as we are defining projects for the next FY
- I will be spearheading the creation of ***Intro to SDO*** document
    - Any idea, comments or concerns are welcome, as well as if there is any recommendations for information to be included, I'd be open to hear about it

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Thank you for your time!

If you have any questions/comments/concerns and would like to reach out, you can contact me at

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79,129,189
#4F81BD

48,49,63
#30313F

250,157,28
#FA9D1C

241,242,245
#F1F2F5

15,47,87
#0F2F57

252,253,255
#FCFDF
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