Examples

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The following examples show fragments of application profiles that demonstrate specific features of the AP process. The examples are described using data fields in accordance with a novel application profile drafted specifically to structure descriptions of AP fragments. That AP can be found below.

Metadata specialists often think in data chunks. Arguably, metadata professionals prefer reading data more than the expository text of the previous chapters. We'll enact that assertion here, offering our examples as data guided by our novelty AP for describing fragments of application profiles, which itself is more data. The features that we think are most interesting about the AP fragments are in the "Noteworthy Features of the Fragment" field as well as in the title/heading of each example.

In many circumstances, an "element set" or "schema" would have been improvised for describing AP fragments, consisting of a few unique properties. In order to create a true AP, we've selected components from already-existing sources and repurposed them for describing AP fragments. The AP is not professional-level chiefly because it is not machine-readable, but also because it is verbose and semi-structured data.

In the AP, eight properties are used to describe AP fragments; those eight properties are described here using the following seven properties, which may rightfully be called properties of properties of properties (demonstrating the notorious "meta" aspect of metadata work): (1) Property URI, (2) Label, (3) Sub-property Of, (4) Description, (5) Mandatory/Optional, (6) Range, (7) Note [optional property].

1. Property URI: <http://purl.org/dc/terms/title>
   a. Label: <none>
   b. Sub-property Of: <http://purl.org/dc/elements/1.1/title>
   c. Description: Enter a title; start with a fragment number formatted as follows: Fragment #[x]: <CR>. Next enter an attribute of the fragment, like "Professional-level", "Widely-adopted", "Platform-specific", etc. Next, for APs, enter "human-readable" or "machine-readable" followed by "AP." If the fragment is not an AP but part of the AP process, simply describe the part of the AP process represented; for example, "Domain model."
   d. Mandatory/Optional: Mandatory
   e. Range: rdfs:Literal
   f. Note: The title appears as a heading above the fragment, without a label.
2. Property URI: <http://purl.org/dc/terms/bibliographicCitation>
   a. Label: Citation
      i. Preferred citation format: Chicago Manual of Style
         1. Preferred edition: 17th edition
   b. Sub-property Of: <http://purl.org/dc/terms/identifier>
   c. Description: Citation to the full application profile, particularly if it is contained in a single document
   d. Mandatory/Optional: Mandatory
   e. Range: rdfs:Literal
3. Property URI: CHOICE: EITHER (1) <http://purl.org/dc/terms/isPartOf> or (2) <http://purl.org/dc/elements/1.1/relation>
   a. Label: (1) Part Of ; (2) Related Resource (Citation)
   b. Sub-property Of: (1) <http://purl.org/dc/terms/relation>, (2) [Not applicable]
   c. Description: Use (1) "Part Of" when citing a URL; use (2) "Related Resource" when providing a bibliographic description as rdfs:Literal. This field references the context or source in which the AP was found, like a website splash page, an article, a repository, etc.
   d. Mandatory/Optional: Mandatory, one or the other property

e. Range: (1) schema:URL for "Part Of", (2) rdfs:Literal for "Related Resource"

4. Property URI: <http://imaginaryURI.edu/fake/sourceOfFragmentNote>
   a. Label: Source of Fragment Note
   b. Sub-property Of: <http://purl.org/dc/terms/description>
   c. Description: Free-text additional information about either the full application profile or the context/source
   d. Mandatory/Optional: Optional
   e. Range: rdfs:Literal

5. Property URI: <http://purl.org/dc/elements/1.1/contributor>
   a. Label: Contributor
   b. Sub-property Of: [Not applicable]
   c. Description: List contributor(s) to the AP; contributors can be creators of the AP, maintainers, even prominent users of the AP. Separate multiple contributors with a semicolon.
   d. Mandatory/Optional: Optional
   e. Range: rdfs:Literal

6. Property URI: <http://purl.org/dc/terms/description>
   a. Label: Noteworthy Features of the Fragment
   b. Sub-property Of: <http://purl.org/dc/elements/1.1/description>
   c. Description: Bulleted list containing free text describing characteristics of APs exemplified in the fragment.
   d. Mandatory/Optional: Mandatory
   e. Range: rdfs:Literal

7. Property URI: <http://purl.org/dc/terms/relation>
   a. Label: Related Resource
   b. Sub-property Of: <http://purl.org/dc/elements/1.1/relation>
   c. Description: Enter the URI of a related resource.
   d. Mandatory/Optional: Optional
   e. Range: schema:URL

8. Property URI: <http://purl.org/dc/elements/1.1/description>
   a. Label: Note on Related Resource
   b. Sub-property Of: [Not applicable]
   c. Description: Enter anything of note about the related resource cited in the "Related Resource" field.
   d. Mandatory/Optional: Optional
   e. Range: rdfs:Literal

Fragment 1: Professional-Level Machine-Readable AP

Citation: Cataloging and Metadata Services, University of Washington Libraries, "WAU.profile.RDA.json," *GitHub*, accessed April 7, 2021, https://github.com/uwlib-cams/UWLibCatProfiles/blob/master/WAU.profile.RDA.json.

Part Of: https://sinopia.io

Source of Fragment Note: No longer available as a full profile but as individual resource templates. Resource template for RDA Work (Monograph) available at https://api.sinopia.io/resource/WAU:RT:RDA:Work:monograph.

Contributor: University of Washington; LD4; LD4P2

Noteworthy Features of the Fragment:

- Based on the Library of Congress (LC) specification for BIBFRAME profiles available at https://www.loc.gov/bibframe/docs/bibframe-profiles.htm.
- Note that the LC specification is for BIBFRAME profiles but can be used for profiles other than BIBFRAME profiles; in this case, RDA.
- Authored in JSON.
- Includes full profile description, resource template description, and the property descriptions within the appropriate resource template.
- The fragment above includes local customizations, illustrating how the specification is extensible.

Related Resource: https://uwlib-cams.github.io/webviews/rdaprofiles/WAU.profile.RDA.monograph.html

Note on Related Resource: The related resource above is an RDA profile for monographs in a more human-readable form (derived from the machine-readable profile).

```
{
  "Profile": {
    "title": "WAU Profile RDA",
    "id": "WAU:profile:RDA",
    "author": "Ben Riesenberg (ries07@uw.edu)",
    "date": "2020-01-22",
    "description": "RDA Work, Expression, Manifestation, Item, Agent, Nomen, Place, and
Timespan; BFLC Administrative Metadata and Status; MADS RDF Complex Subject and Sub-
ject; RDF List",
    "schema": "https://raw.githubusercontent/fakePath/uw-profile.json",
    "resourceTemplates": [
      {
        "resourceURI": "http://rdaregistry.info/Elements/c/C10001",
        "resourceLabel": "WAU RT RDA Work",
        "id": "WAU:RT:RDA:Work",
        "date": "2020-01-22",
        "author": "Ben Riesenberg (ries07@uw.edu)",
        "schema": "https://raw.githubusercontent.com/fakePath/uw-resource-template.json",
        "propertyTemplates": [
          {
            "propertyLabel": "has preferred title of work (*) (RDA 6.2.2)",
            "propertyURI": "http://rdaregistry.info/Elements/w/P10223",
            "mandatory": "true",
            "repeatable": "false",
            "type": "literal",
            "uwFormOrder": 0.004,
            "usedInProfile": [ "etd", "map", "eMap", "eBook" ],
            "remark": "http://access.rdatoolkit.org/6.2.2.html"
          },
          {
            "propertyLabel": "has creator agent of work (RDA 19.2)",
            "propertyURI": "http://rdaregistry.info/Elements/w/P10065",
            "mandatory": "false",
            "repeatable": "true",
            "type": "lookup",
            "valueConstraint": {
              "useValuesFrom": ["urn:ld4p:qa:names"]
            },
            "uwFormOrder": 161,
            "usedInProfile": [ "monograph","dvdVideo", "eMap", "eBook" ],
            "remark": "http://access.rdatoolkit.org/19.2.html"
          }
        ]
      }
    ]
  }
}
```

Figure 6.1
University of Washington's Sinopia profile for RDA (fragment)

4.1.A class = dpla:SourceResource

This class is a subclass of "edm:ProvidedCHO," which comprises the described resources (in EDM called "cultural heritage objects") about which DPLA collects descriptions. It is here that attributes of the described resources are located, not the digital representations of them.

Label	Property	Sub-property of	Range	Usage	Data Type	Vocab/ Syntax Schema	Obligation
Alternate Title	dcterms:alternative .sourceResource. alternative	dc:title		Any alternative title of the described resource including abbreviations and translations.	Literal		0 – n
Collection*	dcterms:isPartOf, .sourceResource. collection	dc: relation	dcmitype: Collection	Collection or aggregation of which described resource is a part.	Reference		0 – n
Contributor	dcterms: contributor .sourceResource. contributor		edm: Agent	Entity responsible for making contributions to described resource.	Reference		0 – n
Creator*	dcterms:creator .sourceResource. creator		edm: Agent	Entity primarily responsible for making described resource.	Reference		0 – n

Figure 6.2
The Digital Public Library of America (DPLA) MAP, version 5.0 (fragment)

Fragment 2: Professional-Level Human-Readable AP

Citation: DPLA MAP Working Group, *Metadata Application Profile, version 5.0,* Digital Public Library of America, 2017, http://dp.la/info/map.

Part Of: https://pro.dp.la/hubs/metadata-application -profile

Source of Fragment Note: The AP is still available only as a human-readable PDF file.

Contributor: Digital Public Library of America

Noteworthy Features of the Fragment:

- Fully modernized AP except it is not machine-readable.
- The properties in Figure 6.2 are used only with instances of the dpla:SourceResource class; this means property domains are implicitly enumerated.
- Several properties also enumerate their range.
- Data type, or "node type", of values is also specified.
- Note how human-readable documents can describe properties using formatting (boldface text to signify that the property appears in the DPLA portal) and symbols (an asterisk to signify that the property is recommended).
- The overall model is based largely on the Europeana Data Model.

Related Resource: https://pro.europeana.eu/page/edm -documentation

Note on Related Resource: The related resource cited above is the "Europeana Data Model" web page, a collection of documents; note especially the "EDM definition."

RDA Instructions & Elements	RDA No.	Notes	MARC Encoding
Identifying Works & Expressions		The authorized access point for principal creator (if any) is required for use in conjunction with the work and expression attributes listed in this section (see also RDA 19.2 below). If a formal authorized access point for a work or expression is also included in the BSR, its form should be established following NACO policies.	
Preferred title for work -- Musical work -- Legal work -- Religious work -- Official communication	6.2.2 6.14.2 6.19.2 6.23.2 6.26.2	Record as part of an authorized access point if the preferred title for work differs from the title proper (245 $a $n $p) or if additional differentiating elements are needed.	130, 240, 7XX
Form of work	6.3	Record if needed to differentiate. For assigning genre/form terms in 6XX fields, see "Subject and genre/form access" in the "Required Non-RDA and MARC Data" sections below.	130, 240, 380, 7XX
Date of work -- Legal work -- Treaty	6.4 6.20 6.20.3	Record if needed to differentiate. Always record the date of a treaty.	046, 130, 240, 7XX
Place of origin of work	6.5	Record if needed to differentiate.	130, 240, 7XX
Other distinguishing characteristic of work -- Legal work	6.6 6.21	Record if needed to differentiate.	130, 240, 381, 7XX

Figure 6.3
BIBCO Standard Record RDA MAP: RDA Core and PCC Core Elements: Identifying Works and Expressions (fragment)

Fragment 3: Widely Adopted Human-Readable AP for Library Data

Citation: Program for Cooperative Cataloging, *BIBCO Standard Record (BSR) RDA Metadata Application Profile* , Program for Cooperative Cataloging, 2020, https://www.loc.gov/aba/pcc/bibco/documents/PCC-RDA-BSR.pdf.

Part Of: https://www.loc.gov/aba/pcc/bibco/bsr-maps.html

Source of Fragment Note: The citation above references the 2020 revision; note that, in the web page containing the link to the BSR, historical versions are available.

Contributor: PCC; BIBCO

Noteworthy Features of the Fragment:

- Recommendation of required minimal description in a shared cataloging environment.
- Not a full-featured AP; highly pragmatic AP.
- Makes use of RDA entities and relationships.
- Bridge between MARC-based past and linked-data future.

Related Resource: https://www.loc.gov/aba/pcc/conser/documents/CONSER-RDA-CSR.pdf

Note on Related Resource: The related resource above is PCC's CONSER Standard Record; a link to the document is available on PCC's web page at https://www.loc.gov/aba/pcc/conser/index.html.

Fragment 4: Platform-Specific AP

Citation: *DSpace*,version 5.6, DuraSpace, 2016.

Part Of: https://digital.lib.washington.edu/researchworks/

Source of Fragment Note: This schema is active in University of Washington, "Metadata Registry," *ResearchWorks Archive,* accessed April 7, 2021.

Contributor: DSpace; DuraSpace; Lyrasis

Noteworthy Features of the Fragment:

- This is the "dc" AP that came with DSpace 5.6 out of the box.
- Note that the AP is extensible; we can add custom local fields.
- The AP is extremely minimal: a list of properties with optional "scope notes."
- The properties are associated with an IRI.
- The AP is an extension of and variation on Dublin Core properties.

Related Resource: https://duraspace.org/dspace/

Note on Related Resource: The related resource cited above is the website for the current version of DSpace (version 7).

Fragment 5: Domain Model

Citation: Dublin Core Metadata Initiative, "DC-Ed-Model—2009-12-09.jpg," *GitHub,* accessed April 8, 2021, https://github.com/dcmi/repository/blob/master/wikis_pre2016/education/educationwiki/Model_files/DC-Ed-Model--2009-12-09.jpg.

Related Resource (Citation): Phil Barker and Lorna Campbell, "Metadata for Learning Materials: An Overview of Existing Standards and Current Developments," *Technology, Instruction, Cognition and Learning* 7 (2010): 225–43, https://www.researchgate.net/publication/228802531_Metadata_for_learning_materials_An_overview_of_existing_standards_and_current_developments.

Figure 6.4
DSpace "dc" Metadata Schema (fragment)

Source of Fragment Note: There does not appear to be a completed domain model, although the model presented can be considered a complete domain model; the model presented here appeared in the article cited above.

Contributor: Dublin Core Metadata Initiative (DCMI)

Noteworthy Features of the Fragment:

- This was not considered a complete domain model when proposed around 2010.
- One main entity "Resource" seems required; each instance would require an IRI.
- Three additional entities may require IRIs.
- Some out-of-scope entities are explicit.
- Relationships between entities are explicit.

Related Resource: https://dublincore.org/groups/education

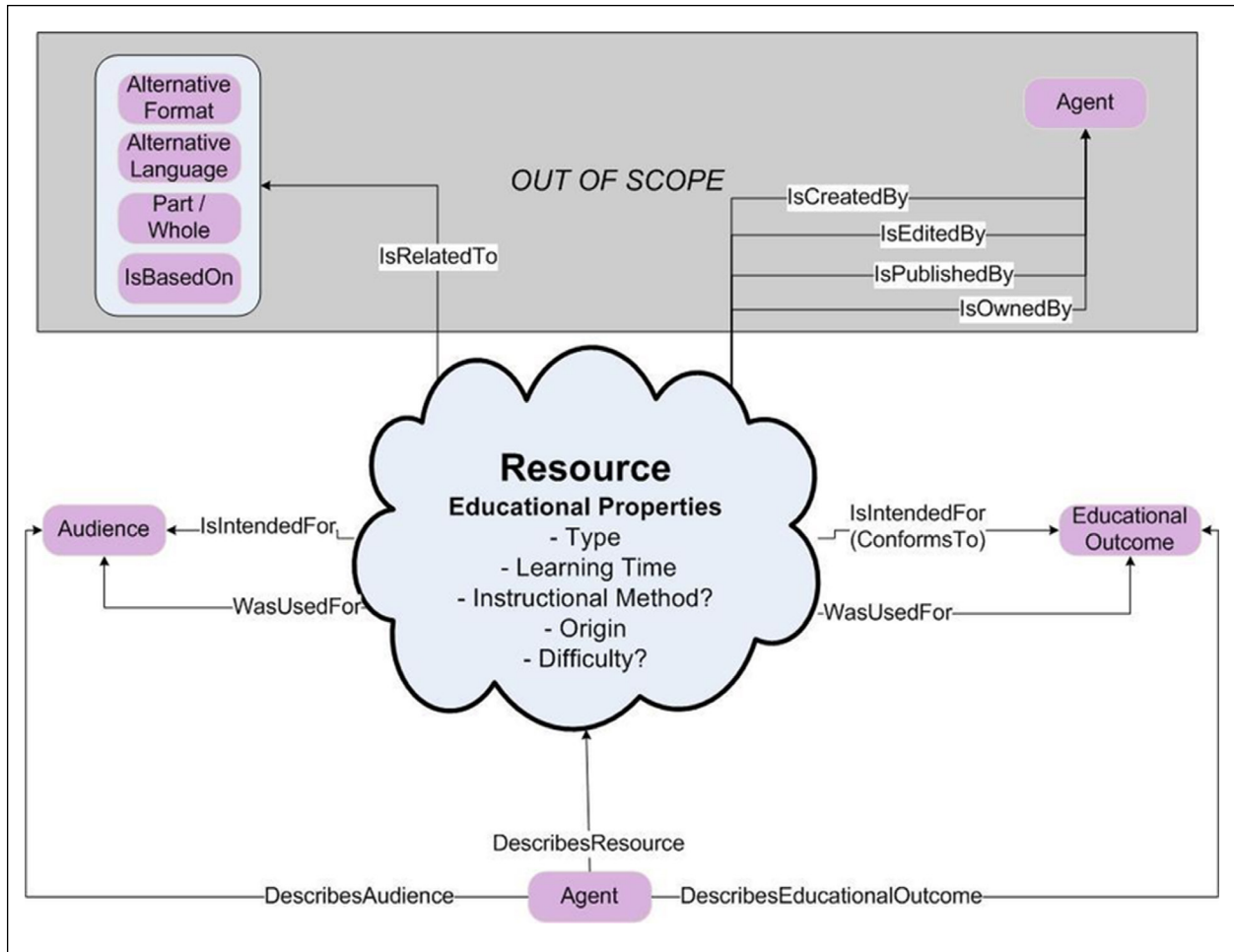*Note on Related Resource:* The related resource above is the archived page for the DCMI Education Community (no longer active).

Figure 6.5
Draft domain model for the DCMI DC-Education profile