

# APO Metadata application profile v0.3

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## Document status

Version	Date issued	Comment
0.1	n/a	First draft. Unpublished. For circulation with trusted stakeholders
0.2	26 November 2018	<p>Concept class added</p> <p>Event class removed</p> <p>Range declarations added</p> <p>Full lists for taxonomies &lt; 100 terms in Example / References</p> <p>Uploaded to <a href="https://github.com/leskneebone/APO-MAP">https://github.com/leskneebone/APO-MAP</a></p>
0.3		<p>typo “org:Organisation” corrected to “org:Organization”</p> <p>grid:hasRelated added to org:Organization class</p> <p>updated obligation for schema:pageStart</p> <p>apo:chapter removed (duplicated mods:partNumber)</p> <p>eprint namespace added</p> <p>foaf:openID property added to foaf:person class</p> <p>apo:journalTitle replaced by dcterms:isPartOf</p> <p><i>References</i> section added.</p> <p><i>Registrations</i> section added.</p> <p>datatype removed for schema:pageStart; schema:pageEnd</p> <p>skos:prefLabel replaces dcterms:title for org:organization class</p> <p>skos:altLabel replaces dcterms:alternate for org:organization class</p> <p>foaf:depiction added to skos:concept class</p> <p>dcterms:isPartOf range changed to range dcterms:bibliographicResource class</p> <p>modsrdf namespace replaces mods</p>

## Registrations

### MARC

The Analysis & Policy Observatory is registered with the MARC Code List for Organizations (Library of Congress, 2017). The code “auhaapo” can be used to indicate APO as the original cataloguing source or as a prefix in APO identifiers.

## Ontology

### APO class matrix

name	RDF class	notes
Resources	dcterms:BibliographicResource	
Collection	dcterms:Collection	
Project	foaf:Project	
Organisation	org:Organization	
Person	foaf:Person	
Conference	dcterms:event	
Concept	skos:concept	AKA taxonomies

## Namespaces

@prefix aglsterms: <<http://www.agls.gov.au/agls/terms/>> .  
@prefix apo: <<http://ontology.apo.org.au/>> .  
@prefix bibo: <<http://purl.org/ontology/bibo/>> .  
@prefix dcterms: <<http://purl.org/dc/terms/>> .  
@prefix eprint: <<http://eprints.org/ep2/data/2.0/>> .  
@prefix foaf: <<http://xmlns.com/foaf/0.1/>> .  
@prefix geo: <[http://www.w3.org/2003/01/geo/wgs84\\_pos#](http://www.w3.org/2003/01/geo/wgs84_pos#)> .  
@prefix grid: <<http://www.grid.ac/ontology/>> .  
@prefix modsrdf: <<http://www.loc.gov/standards/mods/modsrdf/v1/>> .  
@prefix org: <<http://www.w3.org/ns/org#>> .  
@prefix owl: <<http://www.w3.org/2002/07/owl#>> .  
@prefix rdf: <<http://www.w3.org/1999/02/22-rdf-syntax-ns#>> .  
@prefix researchgraph: <<http://researchgraph.org/schema/v2.0/xml/nodes>> .  
@prefix rifcs: <<http://ands.org.au/standards/rifcs>> .  
@prefix schema: <<http://schema.org/>> .  
@prefix scholix: <<http://www.scholix.org/>> .  
@prefix skos: <<http://www.w3.org/2004/02/skos/core#>> .  
@prefix xsd: <<http://www.w3.org/2001/XMLSchema#>> .

## Class tables

### Resource

RDF Class:	dcterms:BibliographicResource
Definition	A book, article, or other documentary resource
Usage note	

Property	namespace	Range	Obligation	Example / References
identifier	dcterms	xsd:anyURI	Recommended	use local system URL of the resource landing page
doi	bibo	xsd:anyURI	Recommended	
format	dcterms	MIME	Mandatory	Internet Media Types [MIME]
title	dcterms	xsd:string	Mandatory	Includes 'subtitles' with punctuation delimiter (such as colon)
subTitle	modsrdf	xsd:string	Optional	"subTitle" includes a subtitle when it is desired to include it as a separate element. Alternatively, it may be included as part of a title.
description	dcterms	xsd:string	Mandatory	
abstract	dcterms	xsd:string	Optional	Content limited to 400 characters
articleBody	schema	xsd:string	Optional	Used where article full text needs to be captured  Full text may be distributed between articlebody, abstract and description.
backstory	schema	xsd:string	Optional	
issued	dcterms	w3c-dtf	Mandatory	
available	dcterms	w3c-dtf	Mandatory	System generated
modified	dcterms	w3c-dtf	Mandatory	System generated
creator	dcterms	xsd:string	Mandatory	

hasPrincipleInvestigator	rifcs	xsd:anyURI	Optional	range includes foaf:person Example: <a href="http://apo.org.au/node/127671">http://apo.org.au/node/127671</a> [Brydie-Leigh Bartleet]
publisher	dcterms	xsd:anyURI	Mandatory	Range includes org:Organization Example: <a href="http://apo.org.au/node/283">http://apo.org.au/node/283</a> [Australian Institute of Health and Welfare]
contentAssociation	apo	xsd:anyURI	Optional	Range is org:Organization
type	dcterms		Mandatory	Vocabulary: [Sound] Audio Audio interview Audio presentation Audio podcast [Text] Annual Report Draft report Policy report Report Article Bill Blog post Book Book review Briefing paper Case study Chapter Commentary Conference paper Conference proceedings Discussion paper Essay Evaluation Fact sheet

				Guide Infographic Journal Journal article Literature review Manifesto Policy Poster Preprint Presentation Slide film Statistics Strategy Submission Survey Systematic review Technical report Thesis Transcript Working paper Other text [Data] Dataset [Interactive resource] Database Data portal Website Other interactive resource [Collection] Collection Reports [Moving image] Interview
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				Video
broadSubject	apo		Mandatory	Vocab: Built Environment Communication Culture Economics Education Health Indigenous International Relations Justice Natural Environment Politics Science Social Issues
subject	dcterms		Mandatory	[Source=FAST] e.g. Cultural studies; Community consultation; Aboriginal Australians – Economic conditions; Economic development
keyword	apo		Optional	[Source=local] e.g. Indigenous arts centres; Creative economy
relation	dcterms	xsd:anyURI	Optional	range includes: dcterms:bibliographicResource
isPartOf	dcterms	xsd:anyURI	Optional	range includes: dcterms:bibliographicResource
references	scholix	-	-	[structured property]
basedOnData	scholix	xsd:anyURI	Optional	range includes: dcterms:dataset Sub property of scholix:references
hasVersion	dcterms	xsd:anyURI	Optional	range includes: dcterms:bibliographicResource
source	dcterms	xsd:anyURI	Optional	range includes: dcterms:bibliographicResource
replaces	dcterms	xsd:anyURI	Mandatory*	range includes: dcterms:bibliographicResource *Mandatory where a Resource replaces a Resource that has been unpublished
isDerivedFrom	rifcs	xsd:anyURI	Not recommended	Superseded by scholix:basedOnData
spatial	dcterms	xsd:anyURI	Optional	range includes: geonames.org
temporal	dcterms	w3c-dtf	Optional	



license	dcterms		Recommended	Vocabulary: All Rights Reserved CC BY CC BY-NC CC BY-NC-ND CC BY-NC-SA CC BY-ND CC BY-SA CC0
rights	dcterms	xsd:string	Recommended	
dateCopyrighted	dcterms	w3c-dtf	Optional	
accessRights	dcterms	vocabulary	Mandatory	Vocabulary: Open Paid subscription required Pay-per-view required Signup required
publicationPlace	apo	xsd:string	Optional	
partNumber	modsrdf	xsd:integer	Optional	
contentAssociation	apo	xsd:anyURI	Optional	has range org:Organization
volume	apo	xsd:integer	Optional	
issue	apo	xsd:integer	Optional	
pageStart	schema		Optional	Mandatory where schema:pageEnd is not empty
pageEnd	schema		Optional	Recommended where schema:pageStart is not empty
bibliographicCitation	dcterms	xsd:string	Optional	
status	eprint	xsd:anyURI	Recommended	Value for a peer reviewed Resource is <a href="http://purl.org/eprint/status/PeerReviewed">http://purl.org/eprint/status/PeerReviewed</a> and is left empty if the work is not reviewed.
extent	dcterms	xsd:duration	Recommended*	Recommended where dcterms:type is Sound OR Moving image
language	dcterms	RFC 4646	Recommended	

## Collection

RDF Class:	<b>dcterms:Collection</b>
Definition	A collection is described as a group; its parts may also be separately described.
Usage note	

Property	namespace	Range	Obligation	Example / References
identifier	dcterms	xsd:anyURI	Recommended	repeatable with different schemes, e.g. DOI; APO
collectionType	apo	vocabulary	Mandatory	Vocabulary: Conference Collection Geographic Collection Research Collection Series Collection
hasPart	dcterms	xsd:anyURI	Mandatory	range includes: dcterms:bibliographicResource
title	dcterms	xsd:string	Mandatory	Includes 'subtitles' with punctuation delimiter (such as colon)
description	dcterms	xsd:string	Mandatory	
abstract	dcterms	xsd:string	Recommended	Typically short enough to display in full in search results.
featured	apo	xsd:anyURI	Recommended	Range includes dcterms:bibliographicResource
issued	dcterms	w3c-dtf	Mandatory	
available	dcterms	w3c-dtf	Mandatory	System generated
modified	dcterms	w3c-dtf	Mandatory	System generated
creator	dcterms	xsd:string	Mandatory	
sponsor	schema	xsd:anyURI	Recommended	range includes: org:Organization
depiction	foaf	xsd:anyURI	Recommended	
type	dcterms		Mandatory	Vocabulary:

				Conference Collection Geographic Collection Research Collection Series Collection
broadSubject	apo		Mandatory	Vocabulary: Built Environment Communication Culture Economics Education Health Indigenous International Relations Justice Natural Environment Politics Science Social Issues
subject	dterms		Mandatory	[Source=FAST] e.g. Cultural studies; Community consultation; Aboriginal Australians – Economic conditions; Economic development
keyword	apo		Optional	[Source=local] e.g. Indigenous arts centres; Creative economy
spatial	dterms		Optional	
temporal	dterms	w3c-dtf	Optional	
license	dterms		Recommended	Vocabulary: All Rights Reserved CC BY CC BY-NC CC BY-NC-ND CC BY-NC-SA CC BY-ND CC BY-SA CC0

rights	dcterms	xsd:string	Recommended	
dateCopyrighted	dcterms	w3c-dtf	Recommended	
accessRights	dcterms		Mandatory	Vocabulary: Open Paid subscription required Pay-per-view required Signup required
language	dcterms	RFC 4646	Recommended	
uploadDate	schema	w3c-dtf	Mandatory	system generated
modified	dcterms	w3c-dtf	Mandatory	system generated

## Project

<b>RDF Class:</b>	<b>foaf:Project</b>
Definition	a collective endeavour of some kind
Usage note	

Property	namespace	Range	Obligation	Example / References
arc	rifcs	xsd:string	Recommended	<a href="http://www.arc.gov.au/grants-dataset">http://www.arc.gov.au/grants-dataset</a> Example: LP150100522
raid	rifcs	xsd:anyURI	Recommended	
funder	researchgraph	xsd:anyURI	Recommended	range includes: org:Organization example: <a href="http://apo.org.au/node/59202">http://apo.org.au/node/59202</a> [Australian Research Council]
fundingScheme	researchgraph	xsd:string	Mandatory*	Mandatory when funder is ARC <a href="http://www.arc.gov.au/grants">http://www.arc.gov.au/grants</a>  Australian Laureate Fellowships Discovery Early Career Researcher Award Discovery Indigenous Discovery Projects Future Fellowships ARC Centres of Excellence Industrial Transformation Research Program Learned Academies Special Projects Linkage Infrastructure, Equipment and Facilities

				<p>Linkage Projects Special Research Initiatives</p> <p>Mandatory where funder is Tertiary Education Commission [NZ]; range includes:  <a href="http://www.tec.govt.nz/funding/funding-and-performance/funding/current-funds/">http://www.tec.govt.nz/funding/funding-and-performance/funding/current-funds/</a></p>
isManagedBy	rifcs	xsd:anyURI	Recommended	<p>range includes: org:Organization  <a href="http://apo.org.au/node/82220">http://apo.org.au/node/82220</a>  [Griffith University]</p>
hasMember	rifcs	xsd:anyURI	Optional	<p>range includes: org:Organization  <a href="http://apo.org.au/node/83847">http://apo.org.au/node/83847</a>  [Queensland Conservatorium Research Centre]</p>
title	dcterms	xsd:string	Mandatory	
alternative	dcterms	xsd:string	Optional	Includes acronyms and former titles
description	dcterms	xsd:string	Mandatory	
broadSubject	apo		Mandatory	<p>Vocabulary:</p> <ul style="list-style-type: none"> <li>Built Environment</li> <li>Communication</li> <li>Culture</li> <li>Economics</li> <li>Education</li> <li>Health</li> <li>Indigenous</li> <li>International Relations</li> <li>Justice</li> <li>Natural Environment</li> <li>Politics</li> <li>Science</li> <li>Social Issues</li> </ul>

subject	dcterms		Mandatory	[Source=FAST] Cultural studies; Community consultation; Aboriginal Australians – Economic conditions; Economic development
keyword	apo		Optional	[Source=local] Indigenous arts centres; Creative economy
subject	dcterms		Optional	[Source= anzsrc-for] <a href="http://purl.org/au-research/vocabulary/anzsrc-for/2008/190499">http://purl.org/au-research/vocabulary/anzsrc-for/2008/190499</a> [Performing Arts and Creative Writing not elsewhere classified]
spatial	dcterms	xsd:anyURI	Recommended	[Source=geonames] Example: <a href="http://sws.geonames.org/11523984">http://sws.geonames.org/11523984</a> [Barkly]
spatial	dcterms	xsd:string	Recommended	[Source=iso3166-1] Example: AU
start-year	researchgraph	W3C-DTF	Recommended	Example: 2016
end-year	researchgraph	W3C-DTF	Recommended	Example: 2019
participant_list	researchgraph	xsd:anyURI	Recommended	Range includes foaf:person Example: <a href="http://apo.org.au/node/127676">http://apo.org.au/node/127676</a> [Sandy O’Sullivan]
hasPrincipleInvestigator	rifcs	xsd:anyURI	Recommended	Range includes foaf:person Example: <a href="http://apo.org.au/node/127671">http://apo.org.au/node/127671</a> [Brydie-Leigh Bartleet]

## Organisation

<b>RDF Class:</b>	<b>org:Organization</b>
Definition	An organization
Usage note	Represents a collection of people organized together into a community or other social, commercial or political structure. The group has some common purpose or reason for existence which goes beyond the set of people belonging to it and can act as an Agent. Organizations are often decomposable into hierarchical structures.

Property	namespace	Range	Obligation	Example / References
identifier	dcterms	xsd:anyURI	Recommended	Range includes: <a href="https://www.grid.ac/">https://www.grid.ac/</a>
prefLabel	skos	xsd:string	Mandatory	
altLabel	skos	xsd:string	Optional	Includes acronyms and former titles
description	dcterms	xsd:string	Mandatory	
subOrganizationOf	org	xsd:anyURI	Optional	range includes: org:Organization
hasRelated	grid	xsd:anyURI	Optional	range includes: org:Organization
purpose	org		Recommended	Vocabulary: Commercial Company Education Government High-level global forum Media Organisation Political party Think Tank University



function	aglstterms	xsd:anyURI	Recommended	range includes AGIFT <a href="https://data.naa.gov.au/def/agift/AGIFT.html">https://data.naa.gov.au/def/agift/AGIFT.html</a>
spatial	dcterms	xsd:string	Recommended	range includes alpha-2 codes from ISO-3166 <a href="https://www.iso.org/iso-3166-country-codes.html">https://www.iso.org/iso-3166-country-codes.html</a>

## Person

<b>RDF Class:</b>	<b>foaf:Person</b>
Definition	A person
Usage note	The Person class represents people. Something is a Person if it is a person. We don't nitpic about whether they're alive, dead, real, or imaginary.

Property	namespace	Range	Obligation	Example / References	Protective marking
openID	foaf	xsd:anyURI	Recommended	Range includes orchid; scopusID  <a href="https://orcid.org/">https://orcid.org/</a> <a href="https://www.scopus.com">https://www.scopus.com</a>	Unclassified
name	foaf	xsd:string	Optional	System generated via concatenation of foaf:firstName AND foaf:lastName	Unclassified
firstName	foaf	xsd:string	Mandatory		Unclassified
lastName	foaf	xsd:string	Mandatory		Unclassified
former Name	apo	xsd:string	Optional		Protected
alternativeName	apo	xsd:string	Optional		Unclassified
thumbnail	foaf	xsd:anyURI	Optional		Protected

## Conference

RDF Class:	dcterms:Event
Definition	A non-persistent, time-based occurrence.
Usage note	

Property	namespace	Range	Obligation	Example / References
ID	dcterms	xsd:anyURI	Recommended	see <a href="https://www.crossref.org/working-groups/conferences-projects/">https://www.crossref.org/working-groups/conferences-projects/</a>
title	dcterms	xsd:string	Mandatory	

## Concept

RDF Class:	skos:Concept
Definition	<p>A SKOS concept can be viewed as an idea or notion; a unit of thought. However, what constitutes a unit of thought is subjective, and this definition is meant to be suggestive, rather than restrictive.</p> <p>The notion of a SKOS concept is useful when describing the conceptual or intellectual structure of a knowledge organization system, and when referring to specific ideas or meanings established within a KOS.</p> <p>Note that, because SKOS is designed to be a vehicle for representing semi-formal KOS, such as thesauri and classification schemes, a certain amount of flexibility has been built in to the formal definition of this class.</p>
Usage note	

Property	namespace	Range	Obligation	Example / References
inScheme	skos	xsd:anyURI	mandatory	range includes skos:conceptScheme
topConceptOf	skos	xsd:anyURI	optional	range includes skos:conceptScheme
prefLabel	skos	xsd:string	mandatory	
altLabel	skos	xsd:string	optional	
broader	skos	xsd:anyURI	mandatory*	*mandatory when skos:topConceptOf is empty
narrower	skos	xsd:anyURI	optional	
related	skos	xsd:anyURI	optional	
scopeNote	skos	xsd:string	optional	
notation	skos	xsd:string; xsd:integer	optional*	*recommended when owl:sameAs is not empty
depiction	foaf	xsd:anyURI	optional	
sameAs	owl	xsd:anyURI	optional*	mandatory where the concept is the same as a concept in a different skos:conceptScheme
exactMatch	skos	xsd:anyURI	optional	
closeMatch	skos	xsd:anyURI	optional	
lat	geo	xsd:decimal	optional*	mandatory when geo:long is not empty
long	geo	xsd:decimal	optional*	mandatory when geo:lat is not empty

## References

Library of Congress (2017). MARC Code List for Organizations. Retrieved from <http://www.loc.gov/marc/organizations/orgshome.html>

