

# Changelog - ATLAS Ontology v2.0

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## 1 Highlights

- Introduced two new classes: `atlas:LanguageModel` and `atlas:3DDigitalTwin`
  - Added alignment with external ontologies: [OntoSoft Ontology](#), [BIBFRAME Ontology](#)
  - Removed deprecated namespaces: `foaf`, `swo`
  - Multiple RDF property updates and refinements for more precise modelling
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## 2 Updated Namespace Declarations

Table 1: Updated Namespace Declarations

Prefix	URI	Change
<code>bf</code>	<a href="http://id.loc.gov/ontologies/bibframe/">id.loc.gov/ontologies/bibframe/</a>	✓ Added
<code>osw</code>	<a href="http://ontosoft.org/software#">ontosoft.org/software#</a>	✓ Added
<code>foaf</code>	<a href="http://xmlns.com/foaf/0.1">xmlns.com/foaf/0.1</a>	✗ Removed
<code>swo</code>	<a href="http://ebi.ac.uk/swo/">ebi.ac.uk/swo/</a>	✗ Removed

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## 3 Changes by Research Product Type

### 3.1 `schema:Dataset` (generic)

#### 3.1.1 Class Overview

Table 2: Class overview by version.

Version	Class	Subclasses
v1.0	<code>schema:Dataset</code>	Digital Scholarly Edition, Text Collection, Linked Open Data, Ontology, Software
v2.0	<code>schema:Dataset</code>	Digital Scholarly Edition, Text Collection, Linked Open Data, Ontology, Software, Language Model, 3D Digital Twin

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### 3.1.2 Updated Properties

Table 3: Updated RDF Properties in version 2.0

Property Description	Previous RDF Property	New RDF Property	Change Notes
Custom Type	dct:type	dct:type	Previously used with <code>fabio:ComputerProgram</code> . ATLAS recommends using terms from the <a href="#">KNOT Taxonomy</a> .
Size	schema:size	schema:size	Extended from <code>atlas:TextCollection</code> to all Research Products.
Note on Research Product	atlas:noteOnSource	atlas:noteOn-ResearchProduct	Replaces and generalises previous usage from <code>atlas:DigitalScholarlyEdition</code> and <code>atlas:TextCollection</code> .
Mentions	—	schema:mentions	New property introduced.

## 3.2 atlas:Software

### 3.2.1 Class Overview

Table 4: Class overview for `atlas:Software`

Version	Class	Subclass Of
v1.0	atlas:Software	schema:Dataset; fabio:ComputerProgram
v2.0	atlas:Software	schema:Dataset; schema:SoftwareApplication

### 3.2.2 Updated Properties

Table 5: Updated properties for `atlas:Software`

Property Description	Previous RDF Property	New RDF Property
Code Repository URL	schema:archivedAt	osw:hasCodeLocation
Programming Language	swo:00000741	osw:hasImplementationLanguage
Input Format	swo:0000086	osw:hasInput
Output Format	swo:0000087	osw:hasOutput

*Note:* All changes adopt OSW terms with equivalent meaning, preferred for consistency across software-related properties.

### 3.3 atlas:LinkedOpenData

#### 3.3.1 Class Overview

Table 6: Class overview for atlas:LinkedOpenData

Version	Class	Subclass Of
v1.0	atlas:LinkedOpenData	schema:Dataset; fabio:DataFile
v2.0	atlas:LinkedOpenData	schema:Dataset

#### 3.3.2 Updated Properties

Table 7: Updated properties for atlas:LinkedOpenData

Property Description	Previous RDF Property	New RDF Property	Change Notes
RDF Vocabularies and Ontologies	dct:references	atlas:vocabulary	Replaces generic reference with atlas:vocabulary, which requires a URI identifying a used vocabulary.

### 3.4 atlas:DigitalScholarlyEdition

#### 3.4.1 Class Overview

Table 8: Class overview for atlas:DigitalScholarlyEdition

Version	Class	Subclass Of
v1.0	atlas:DigitalScholarlyEdition	schema:Dataset; fabio:MetadataDocument
v2.0	atlas:DigitalScholarlyEdition	schema:Dataset; fabio:MetadataDocument

### 3.4.2 Updated Properties

Table 9: Updated properties for `atlas:DigitalScholarlyEdition`

Property Description	Previous RDF Property	New RDF Property	Change Notes
Edited Work	<code>dct:source</code>	<code>bf:expressionOf</code>	More precise modelling.
Original Document(s) or Witness(es)	<code>dct:references</code>	<code>bf:associatedResource</code>	Clarifies the relationship with source materials.
Note on the Edited Text	<code>atlas:notesOnSource</code>	<code>atlas:noteOnResearchProduct</code>	Replaces and generalises previous usage from <code>atlas:DigitalScholarlyEdition</code> and <code>atlas:TextCollection</code> .
Facsimile(s) available at	—	<code>bf:accompaniedBy</code>	New property added to indicate linked facsimiles.

## 3.5 `atlas:TextCollection`

### 3.5.1 Class Overview

Table 10: Class overview for `atlas:TextCollection`

Version	Class	Subclass Of
v1.0	<code>atlas:TextCollection</code>	<code>schema:Dataset</code> ; <code>fabio:Anthology</code>
v2.0	<code>atlas:TextCollection</code>	<code>schema:Dataset</code> ; <code>fabio:Anthology</code>

### 3.5.2 Updated Properties

Table 11: Updated properties for `atlas:TextCollection`

Property Description	Previous RDF Property	New RDF Property	Change Notes
Collected Works	<code>dct:source</code>	<code>bf:expressionOf</code>	More precise modelling.
Note on the - Text Collection	<code>atlas:notesOnSource</code>	<code>atlas:noteOnResearchProduct</code>	Replaces and generalises previous usage.
Geographical Coverage	—	<code>schema:spatialCoverage</code>	New property introduced.
Temporal Coverage	—	<code>schema:temporalCoverage</code>	New property introduced.

### 3.6 atlas:LanguageModel (new class)

#### 3.6.1 Class Overview

Table 12: Class overview for atlas:LanguageModel

Version	Class	Subclass Of
v2.0	atlas:LanguageModel	schema:Dataset; schema:SoftwareApplication

#### 3.6.2 Properties

Table 13: Properties for atlas:LanguageModel

Property Description	RDF Property	Notes
Task	schema:applicationCategory	Inherited from schema:SoftwareApplication.
Execution Specification	atlas:noteOnResearchProduct	Inherited from schema:Dataset.
Used Libraries	schema:isBasedOn	Inherited from schema:SoftwareApplication.
Parameters Number	schema:size	Inherited from schema:Dataset.
Related Dataset Description	atlas:used → schema:description	Requires a new schema:Dataset instance as the object of atlas:used.
Related Dataset Description	atlas:used → schema:description	Requires a new schema:Dataset instance as the object of atlas:used.

### 3.7 atlas:3DDigitalTwin (new class)

#### 3.7.1 Class Overview

Table 14: Class overview for atlas:3DDigitalTwin

Version	Class	Subclass Of
v2.0	atlas:3DDigitalTwin	schema:Dataset

### 3.7.2 Properties

Table 15: Properties for atlas:3DDigitalTwin

Property Description	RDF Property	Notes
Has 3D Model	<code>schema:associatedMedia</code>	Property to link a 3D model of type <code>schema:3DModel</code> .
Reproduces Creative Work	<code>schema:exampleOfWork</code>	Property to link the digital twin to a <code>schema:CreativeWork</code> (e.g., a cultural heritage object).

## 4 Access Points

### 4.1 `schema:WebSite`, `schema:SoftwareApplication`

Table 16: Mappings for access-related classes and properties

Old Term	New Term	Notes
<code>fabio:WebSite</code>	<code>schema:WebSite</code>	Class mapping for access points - web sites
<code>fabio:ComputerProgram</code>	<code>schema:SoftwareApplication</code>	Class mapping for software access
<code>dct:type</code>	<code>schema:applicationCategory</code>	Property used within <code>schema:SoftwareApplication</code>

## 5 Agent Updates

### 5.1 `schema:Person`, `schema:Organization`, `schema:ResearchProject`

Table 17: Updates to agent modeling

Change	Notes
Removed <code>foaf:Agent</code> superclass	Affects both <code>schema:Person</code> and <code>schema:Organization</code>
Introduced <code>schema:sameAs</code>	Supports alignment with external authorities

## 6 Renamed & Deprecated Terms

Table 18: Renamed terms in ATLAS v2.0

Old Name	New Name	Notes
atlas:notesOnSource	atlas:noteOnResearchProduct	Generalised and reused across product types