



## **Report on the Maintenance of DCAT-AP**

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Authors	Makx Dekkers – AMI Consult
Approved by	Fidel Santiago – European Commission

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## 1 INTRODUCTION AND BACKGROUND

This document is part of TASK-02 “DCAT-AP” of [ISA<sup>2</sup>](#) Action 2016.07 “Promoting semantic interoperability among EU Member States”, commonly known as SEMIC<sup>2</sup>.

This report serves as the first of a series of trimestral status reports related to the maintenance of [DCAT-AP<sup>3</sup>](#), an Application Profile of the W3C Recommendation [DCAT<sup>4</sup>](#). The production of this and subsequent reports is governed by the [Change and Release Management Policy for DCAT-AP<sup>5</sup>](#).

The current report includes a short summary of a study into the practical use of properties specified for DCAT-AP in section 2, followed by an overview of all issues that are being discussed by the Working Group in section 3. A small number of issues that may need further discussion by the Working Group are presented in section 4. Information about and a link to the new JSON-LD distribution is contained in section 5. Section 6 contains a short report on the activities of the [Dataset Exchange Working Group<sup>6</sup>](#) at W3C. Finally, section 7 outlines the next steps in relation to the future maintenance of DCAT-AP.

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<sup>1</sup> ISA<sup>2</sup>. [https://ec.europa.eu/isa2/home\\_en](https://ec.europa.eu/isa2/home_en)

<sup>2</sup> SEMIC: <https://joinup.ec.europa.eu/collection/semantic-interoperability-community-semic>

<sup>3</sup> DCAT application profile for data portals in Europe. <https://joinup.ec.europa.eu/solution/dcat-application-profile-data-portals-europe/about>

<sup>4</sup> Data Catalog Vocabulary (DCAT). W3C Recommendation 16 January 2014. <https://www.w3.org/TR/vocab-dcat/>

<sup>5</sup> Change and Release Management Policy for DCAT-AP. <https://joinup.ec.europa.eu/node/700269>

<sup>6</sup> W3C Dataset Exchange Working Group (DXWG). <https://www.w3.org/2017/dxwg/wiki/>

## 2 DCAT-AP USAGE ANALYSIS

The study on the usage of DCAT-AP<sup>7</sup> investigated the use of the properties specified for DCAT-AP. The purpose of the work was to provide input to the DCAT-AP Working Group by identifying any usage issues to help inform the future development of DCAT-AP.

The analysis was carried out by querying the SPARQL endpoint of the [European Data Portal \(EDP\)](#)<sup>8</sup> to determine to what extent the properties specified for DCAT-AP are used in practice. The analysis did not investigate the use of DCAT-AP properties by the national portals. In addition to the analysis of the use of DCAT-AP classes and properties, also the use of the controlled vocabulary specified in DCAT-AP was considered.

The results of the analysis were presented in the [Webinar "Change and Release Management Policy for DCAT-AP"](#)<sup>9</sup> on 8 December 2017. The issues from the study were then added to as [issues in the DCAT-AP Repository on GitHub](#)<sup>10</sup>.

The issues raised include the possible removal of properties that are almost not or at all used, possible upgrading properties from optional to recommended and from recommended to mandatory, as well as issues that might be resolved by creating additional guidance material.

All issues raised by the study on the use of DCAT-AP are included in the overview of issues presented in section 3.

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<sup>7</sup> <https://joinup.ec.europa.eu/document/report-dcat-ap-use>

<sup>8</sup> European Data Portal. <https://www.europeandataportal.eu/>

<sup>9</sup> Change and Release Management Policy for DCAT-AP - final webinar on 8 December 2017 at 10:00 CET. <https://joinup.ec.europa.eu/node/700137>

<sup>10</sup> DCAT-AP issue tracker on GitHub. <https://github.com/SEMICEu/DCAT-AP/issues>

### 3 ISSUES UNDER CONSIDERATION

#### 3.1 Overview

Change requests for DCAT-AP are handled through an [issue tracker on GitHub](#)<sup>11</sup>. The GitHub repository was created on 13 September 2017. It was announced to the DCAT-AP Working Group in the [DCAT-AP "Change Management & Release Policy" Webinar on 19 October 2017](#)<sup>12</sup> and again in the [Change and Release Management Policy for DCAT-AP - final webinar on 8 December 2017](#)<sup>13</sup>, with further reminders sent by e-mail to the members of the DCAT-AP Working Group on 16 January 2018 and 19 February 2018. Overall, the information reached 129 members of the DCAT-AP Working Group by e-mail and 28 participants in the two Webinars.

A total of 45 issues were created in the period until 20 March 2018. 32 issues were submitted by the SEMIC team based on the analysis of DCAT-AP usage available on Joinup<sup>14</sup>. Eleven issues were submitted by or on behalf of two external participants.

The DCAT-AP GitHub repository had 20 [watchers](#)<sup>15</sup> as of 20 March 2018, with eight of them members of the SEMIC team. Others include representatives from the Publications Office, and national data portals of Norway, Italy, Spain and Germany. Seven people (four watchers and three non-watchers) have actively contributed to the discussions on GitHub.

Three issues were closed, one because it was a duplicate and could be merged with another issue, the other two were related to minor changes in the JSON-LD expression. Of the remaining 42 issues, 20 were actively discussed.

#### 3.2 Categorisation of the issues

The issues are grouped in the next sections in three categories:

1. Issues for bug-fix release in section 3.3
2. Issues that involve semantic changes in section 3.4
3. Issues that may require additional guidance in section 3.5

Some issues were solved and closed during the GitHub discussions. Those are listed in section 3.6.

#### 3.3 Issues for bug-fix release

No issues were submitted that fall into the category of bug fixes. This also means that no new specification will be produced in this phase of the release cycle.

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<sup>11</sup> <https://github.com/SEMICeu/DCAT-AP>

<sup>12</sup> <https://joinup.ec.europa.eu/node/700024>

<sup>13</sup> <https://joinup.ec.europa.eu/node/700137>

<sup>14</sup> <https://joinup.ec.europa.eu/document/report-dcat-ap-use>

<sup>15</sup> <https://github.com/SEMICeu/DCAT-AP/watchers>

### 3.4 Issues that involve semantic changes

Title	Cardinality dct:type on Licence Document
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/1">https://github.com/SEMICeu/DCAT-AP/issues/1</a>
Discussion	As some licences may need to be associated with more than one licence type in the ADMS Licence Type Vocabulary, the maximum occurrence of dct:type for dct:LicenseDocument should be raised from 1 to n.
Proposed resolution	In next minor semantic release, change cardinality to 0..n. Retain issue for next major semantic release to discuss other ways of expressing characteristics of licences, for example as discussed in the Dataset Exchange Working Group at W3C. See: <a href="https://github.com/w3c/dxwg/issues/114">https://github.com/w3c/dxwg/issues/114</a>

Title	dcat:Catalog - dcat:themeTaxonomy mandatory?
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/2">https://github.com/SEMICeu/DCAT-AP/issues/2</a>
Discussion	None.
Proposed resolution	Make dcat:themeTaxonomy mandatory for Catalog.

Title	dcat:Catalog - dct:spatial recommended?
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/3">https://github.com/SEMICeu/DCAT-AP/issues/3</a>
Discussion	None.
Proposed resolution	Make dct:spatial recommended for Catalog.

Title	dcat:Catalog - remove dct:language?
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/4">https://github.com/SEMICeu/DCAT-AP/issues/4</a>
Discussion	One comment arguing that the property should be retained. A question was asked what the implications were of removal of properties. This issue is further addressed in section 4.1.
Proposed resolution	No change.

Title	dcat:Catalog - remove dct:rights?
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/5">https://github.com/SEMICeu/DCAT-AP/issues/5</a>
Discussion	None.
Proposed resolution	Remove dct:rights from Catalog.

Title	dcat:Catalog - remove dct:isPartOf?
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/6">https://github.com/SEMICeu/DCAT-AP/issues/6</a>
Discussion	None.
Proposed resolution	Remove dct:isPartOf from Catalog

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<b>Title</b>	<b>dcats:Dataset - use of dct:publisher and dcat:contactPoint</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/8">https://github.com/SEMICeu/DCAT-AP/issues/8</a>
Discussion	Comment from the Working Group that information about the publisher is crucial.
Proposed resolution	No change.

<b>Title</b>	<b>dcats:Dataset - dct:spatial recommended?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/9">https://github.com/SEMICeu/DCAT-AP/issues/9</a>
Discussion	None.
Proposed resolution	Make dct:spatial recommended for Dataset.

<b>Title</b>	<b>dcats:Dataset - remove adms:sample?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/10">https://github.com/SEMICeu/DCAT-AP/issues/10</a>
Discussion	One comment that argued that a different property could be designed that would allow an empty table to serve a template for the data.
Proposed resolution	Remove adms:sample from Dataset.

<b>Title</b>	<b>dcats:Dataset- remove adms:versionNotes?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/11">https://github.com/SEMICeu/DCAT-AP/issues/11</a>
Discussion	None.
Proposed resolution	No change. See section 4.3.

<b>Title</b>	<b>dcats:Dataset - remove dct:accessRights?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/12">https://github.com/SEMICeu/DCAT-AP/issues/12</a>
Discussion	One comment that, even in the case the property was removed from DCAT-AP, the national profile would still keep it.
Proposed resolution	No change.

<b>Title</b>	<b>dcats:Dataset - remove dct:hasVersion?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/13">https://github.com/SEMICeu/DCAT-AP/issues/13</a>
Discussion	None.
Proposed resolution	No change. See section 4.3.

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<b>Title</b>	<b>dcat:Dataset - remove dct:isVersionOf?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/14">https://github.com/SEMICeu/DCAT-AP/issues/14</a>
Discussion	None.
Proposed resolution	No change. See section 4.3.

<b>Title</b>	<b>dcat:Dataset - remove dct:relation?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/15">https://github.com/SEMICeu/DCAT-AP/issues/15</a>
Discussion	None.
Proposed resolution	Remove dct:relation from dcat:Dataset

<b>Title</b>	<b>dcat:Dataset - remove dct:source?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/16">https://github.com/SEMICeu/DCAT-AP/issues/16</a>
Discussion	None.
Proposed resolution	Remove dct:source from dcat:Dataset.

<b>Title</b>	<b>dcat:Dataset - remove dct:type?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/17">https://github.com/SEMICeu/DCAT-AP/issues/17</a>
Discussion	One comment that the type could be used to group related datasets into collections. One comment that the type can be used to distinguish between datasets, dataset series, geospatial datasets, documents, etc., and may use a controlled vocabulary for this.
Proposed resolution	No change. Note discussion at DXWG, see: <a href="https://github.com/w3c/dxwg/issues/64">https://github.com/w3c/dxwg/issues/64</a>

<b>Title</b>	<b>dcat:Dataset - remove owl:versionInfo?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/18">https://github.com/SEMICeu/DCAT-AP/issues/18</a>
Discussion	None.
Proposed resolution	No change. See section 4.3.

<b>Title</b>	<b>dcat:Distribution - remove dct:rights?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/21">https://github.com/SEMICeu/DCAT-AP/issues/21</a>
Discussion	None.
Proposed resolution	Remove dct:rights from Distribution.

<b>Title</b>	<b>dcat:Distribution - remove dcat:byteSize?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/22">https://github.com/SEMICeu/DCAT-AP/issues/22</a>
Discussion	None.
Proposed resolution	Remove dcat:byteSize from Distribution.

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<b>Title</b>	<b>dcat:Distribution - remove dct:language?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/23">https://github.com/SEMICeu/DCAT-AP/issues/23</a>
Discussion	None.
Proposed resolution	Remove dct:language from Distribution.

<b>Title</b>	<b>dcat:Distribution - remove spdx:checksum?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/24">https://github.com/SEMICeu/DCAT-AP/issues/24</a>
Discussion	None.
Proposed resolution	Remove spdx:checksum from Distribution.

<b>Title</b>	<b>dcat:Distribution - remove dct:conformsTo?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/25">https://github.com/SEMICeu/DCAT-AP/issues/25</a>
Discussion	None.
Proposed resolution	No change, Note that DXWG has decided to add conformsTo to Distribution, see <a href="https://github.com/w3c/dxwg/issues/55">https://github.com/w3c/dxwg/issues/55</a> .

<b>Title</b>	<b>dcat:Distribution - remove foaf:page?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/28">https://github.com/SEMICeu/DCAT-AP/issues/28</a>
Discussion	None.
Proposed resolution	Remove foaf:page from Distribution.

<b>Title</b>	<b>dcat:CatalogRecord - remove dct:conformsTo?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/29">https://github.com/SEMICeu/DCAT-AP/issues/29</a>
Discussion	None.
Proposed resolution	Remove dct:conformsTo from CatalogRecord.

<b>Title</b>	<b>dcat:CatalogRecord - remove dct:title?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/30">https://github.com/SEMICeu/DCAT-AP/issues/30</a>
Discussion	None.
Proposed resolution	Remove dct:title from CatalogRecord.

<b>Title</b>	<b>dcat:CatalogRecord - remove dct:source?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/31">https://github.com/SEMICeu/DCAT-AP/issues/31</a>
Discussion	None.
Proposed resolution	Remove dct:source from CatalogRecord.

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<b>Title</b>	<b>dcat:CatalogRecord - remove dct:language?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/32">https://github.com/SEMICeu/DCAT-AP/issues/32</a>
Discussion	None.
Proposed resolution	Remove dct:language from CatalogRecord.

<b>Title</b>	<b>dcat:CatalogRecord - remove dct:description?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/33">https://github.com/SEMICeu/DCAT-AP/issues/33</a>
Discussion	One comment that currently catalogue records are not harvested by the European Data Portal.
Proposed resolution	Remove dct:description from CatalogRecord.

<b>Title</b>	<b>licenseDocument</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/34">https://github.com/SEMICeu/DCAT-AP/issues/34</a>
Discussion	Suggestion to specify a mandatory controlled vocabulary for the dct:license property as well as to devise a mechanism to provide addition information with the licence, e.g. the way attribution needs to be done. This issue is further addressed in section 4.2.
Proposed resolution	No change. Note discussion at DXWG, see: <a href="https://github.com/w3c/dxwg/issues/114">https://github.com/w3c/dxwg/issues/114</a>

<b>Title</b>	<b>Support for data integration</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/35">https://github.com/SEMICeu/DCAT-AP/issues/35</a> , created from comment at <a href="https://github.com/SEMICeu/DCAT-AP/issues/4">https://github.com/SEMICeu/DCAT-AP/issues/4</a>
Discussion	Introduces a requirement to support data integration in the case of combination of data from various sources.
Proposed resolution	Retain issue for next major semantic release, also taking into account the discussions at W3C DXWG, see <a href="https://www.w3.org/TR/dcat-ucr/#ID7">https://www.w3.org/TR/dcat-ucr/#ID7</a> and <a href="https://www.w3.org/TR/dcat-ucr/#ID26">https://www.w3.org/TR/dcat-ucr/#ID26</a>

<b>Title</b>	<b>DCAT: Distribution – Suggestion attribute for record - ‘temporal granularity’</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/38">https://github.com/SEMICeu/DCAT-AP/issues/38</a>
Discussion	One comment objecting to the proposed range of rdfs:Literal. It was pointed out that a property dcat:granularity was defined during development of DCAT but deprecated before DCAT reached Recommendation status. If decided that DCAT-AP Working Group wants to use this property, need to discuss with DXWG to ask for deprecation. MDR Time period NAL ( <a href="http://publications.europa.eu/mdr/authority/timeperiod/">http://publications.europa.eu/mdr/authority/timeperiod/</a> ) could be used as controlled vocabulary.
Proposed resolution	Retain issue for next major semantic release.

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<b>Title</b>	<b>DCAT: Dataset – Suggestion attribute for record - ‘maintainer’</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/39">https://github.com/SEMICeu/DCAT-AP/issues/39</a>
Discussion	One comment objecting to the proposed range of rdfs:Literal. Further comments that earlier work on DCAT-AP discussed agent roles. Definition of maintainer is very close to semantics for publisher.
Proposed resolution	No change.

<b>Title</b>	<b>DCAT: Distribution – suggestion attribute for record – ‘planned availability’</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/40">https://github.com/SEMICeu/DCAT-AP/issues/40</a>
Discussion	Proposed by German data portal. One comment that range should be skos:Concept, not rdfs:Resource.
Proposed resolution	Retain issue for next major semantic release.

<b>Title</b>	<b>DCAT: Dataset - Suggestion attribute for record – ‘dct:contributor’</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/42">https://github.com/SEMICeu/DCAT-AP/issues/42</a>
Discussion	One comment that range should not be rdfs:Literal. Obvious candidate would be dct:contributor with range dct:Agent.
Proposed resolution	Retain issue for next major semantic release.

<b>Title</b>	<b>innerMimeType - There might be a need of having an inner mime type (for ZIP-Containers)</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/43">https://github.com/SEMICeu/DCAT-AP/issues/43</a>
Discussion	One comment that issue was already addressed in previous work. There is also already a guideline for this at <a href="https://joinup.ec.europa.eu/release/how-refer-media-types-within-zip-files">https://joinup.ec.europa.eu/release/how-refer-media-types-within-zip-files</a>
Proposed resolution	No change.

<b>Title</b>	<b>SPDX Vokabular - the existing SPDX vocabulary features only ONE has algorithm. This is definitely not enough and does not even covers those algorithms used by CKAN</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/44">https://github.com/SEMICeu/DCAT-AP/issues/44</a>
Discussion	None.
Proposed resolution	Retain issue for next major semantic release.

<b>Title</b>	<b>DCAT: Distribution - Correction of adms:changetype</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/45">https://github.com/SEMICeu/DCAT-AP/issues/45</a>
Discussion	None
Proposed resolution	Needs to be resolved by SEMIC team, adding the vocabulary to <a href="https://joinup.ec.europa.eu/svn/adms/ADMS_v1.00/ADMS_SKOS_v1.00.html">https://joinup.ec.europa.eu/svn/adms/ADMS_v1.00/ADMS_SKOS_v1.00.html</a>

### 3.5 Issues that may require additional guidance

<b>Title</b>	<b>dcat:Dataset - how to encourage the use of dct:description?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/7">https://github.com/SEMICeu/DCAT-AP/issues/7</a>
Discussion	Several comments that the provision of a description of the catalogue is an important aspect of quality and should be imposed.
Proposed resolution	No change to the specification.

<b>Title</b>	<b>dcat:Dataset - harmonise the use of dct:accrualPeriodicity</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/19">https://github.com/SEMICeu/DCAT-AP/issues/19</a>
Discussion	None.
Proposed resolution	No change to the specification.

<b>Title</b>	<b>dcat:Distribution - usage of dct:title and dct:format</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/20">https://github.com/SEMICeu/DCAT-AP/issues/20</a>
Discussion	None.
Proposed resolution	No change to the specification.

<b>Title</b>	<b>dcat:Distribution - use of dct:format and dcat:mediaType</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/26">https://github.com/SEMICeu/DCAT-AP/issues/26</a>
Discussion	One comment that a national profile includes a guideline for the use of these properties.
Proposed resolution	No change to the specification.

<b>Title</b>	<b>DCAT: Distribution - Suggestion attribute for record – 'LicenseattributionByText'</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/41">https://github.com/SEMICeu/DCAT-AP/issues/41</a>
Discussion	Proposal was made to add a new property to provide attribution text for licence. It was pointed out that the possibility already exists to link to an odr:RightsStatement that can include a property odr:attributionText.
Proposed resolution	No change to the specification.

### 3.6 Issues that were closed

<b>Title</b>	<b>dcat:Distribution - remove adms:sample?</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/27">https://github.com/SEMICeu/DCAT-AP/issues/27</a>
Status	Issue was closed, and discussion moved to <a href="https://github.com/SEMICeu/DCAT-AP/issues/10">https://github.com/SEMICeu/DCAT-AP/issues/10</a>

<b>Title</b>	<b>JSON-LD context errors</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/36">https://github.com/SEMICeu/DCAT-AP/issues/36</a>
Status	Issue was closed after correction of the reported errors.

<b>Title</b>	<b>Solve ambiguity issues when properties are used by different classes in JSON-LD</b>
URL	<a href="https://github.com/SEMICeu/DCAT-AP/issues/37">https://github.com/SEMICeu/DCAT-AP/issues/37</a>
Status	Issue was closed after implementation of a solution.

## 4 ADDITIONAL DISCUSSIONS

### 4.1 Implications of removal of properties from the profile

In the context of <https://github.com/SEMICeu/DCAT-AP/issues/4>, a question was asked about the implications of removal of properties from the profile.

Removal of optional properties may not have an immediate effect on interoperability, as optional elements may be absent from conformant DCAT-AP data. However, applications that provide data for optional elements may need to be updated as receiving applications, such as harvesters and aggregators, may no longer process such data.

It is therefore suggested to consider removal of optional properties in the context of the next major semantic release to avoid any adverse consequences.

### 4.2 Licensing and attribution

As noted in the context of <https://github.com/SEMICeu/DCAT-AP/issues/34>, an issue was raised about the way that DCAT-AP handles references to licences for use and reuse of the distributions of datasets.

In conformance with the W3C Recommendation, DCAT-AP includes the property `dct:license` to express the condition under which the data may be used and/or reused. One of the common licensing arrangements is one where attribution is required, e.g. under a Creative Commons Attribution<sup>16</sup> licence.

However, the reference to such a licence does not include an instruction on how the required attribution should be expressed.

The members of the DCAT-AP Working Group are strongly encouraged to bring this issue to the attention of the W3C DXWG as it is an issue that may well be relevant for all DCAT-based implementations. The e-mail address for comments and contributions is [public-dxwg-comments@w3.org](mailto:public-dxwg-comments@w3.org).

### 4.3 Versioning

A number of issues were raised (#11, #13, #14, #18) that are related to versioning. At the moment, version-related properties are not used much, but the Working Group should take into account the [discussions](#)<sup>17</sup> taking place in the Dataset Exchange Working Group at W3C.

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Creative Commons. <sup>16</sup> Attribution 4.0 International (CC BY 4.0).

<https://creativecommons.org/licenses/by/4.0/>

<sup>17</sup> <https://github.com/w3c/dxwg/issues?q=is%3Aissue+is%3Aopen+version+label%3Aversion>

## 5 JSON-LD CONTEXT

A new distribution of DCAT-AP was developed by the SEMIC team in early 2018. The JSON-LD context for the implementation of DCAT-AP in JSON-LD environments was published and announced for review by the DCAT-AP Working Group on 19 February 2018. The [draft of the JSON-LD context was published on GitHub](#)<sup>18</sup>. The final version was published on Joinup<sup>19</sup>.

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<sup>18</sup> DCAT-AP JSON-LD context. <https://github.com/SEMICeu/DCAT-AP/blob/master/releases/1.1/dcat-ap-1.1.jsonld>

<sup>19</sup> [https://joinup.ec.europa.eu/rdf\\_entity/http\\_e\\_f\\_data\\_ceuropa\\_ceu\\_fw21\\_f75f74eff\\_b5ef7\\_b4c22\\_b853f\\_b4d9c2eaedc4](https://joinup.ec.europa.eu/rdf_entity/http_e_f_data_ceuropa_ceu_fw21_f75f74eff_b5ef7_b4c22_b853f_b4d9c2eaedc4)

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## 6 DXWG SUMMARY

The [Dataset Exchange Working Group is chartered](#)<sup>20</sup> to revise the Data Catalog Vocabulary, DCAT, taking account of related vocabularies and the extensive work done in developing a number of its application profiles, and to define and publish guidance on the use of application profiles when requesting and serving data on the Web.

The group is chaired by Caroline Burle, Brazilian Network Information Center, and Karen Coyle, Dublin Core Metadata Initiative and includes participants from the Americas, Europe and Australia with representation from many domains, including research, geospatial services, government administrations and consultancy.

Discussions in the Working Group are conducted publicly at [GitHub](#)<sup>21</sup> and include the following topics:

- Rights and licences – how to link to rights and licences expressed using rights expression languages such as the [Open Digital Rights Language \(ODRL\)](#)<sup>22</sup> and whether or not licences could also be associated with Datasets in addition to Distributions.
- Mapping of DCAT properties and classes to other standards that are used for description of datasets.
- Strong versus weak axiomisation – whether it would be useful to relax the domain and range axioms for DCAT properties and how that would affect interoperability. One preliminary decision was taken to remove the domain restriction to dcat:Dataset for dcat:contactPoint, while discussion is still ongoing to broaden the range axiom to also include other ways to express contact information, in addition to the currently defined vcard:Kind class.
- Profile expression and languages – this could include expressions such as the [Shapes Constraint Language \(SHACL\)](#)<sup>23</sup>, [Shape Expressions \(ShEx\)](#)<sup>24</sup> and [JSON-LD Framing](#)<sup>25</sup>.
- Distribution types and requirements – describing the way that data can be accessed that is not published in the form of files but through service interfaces.
- Versioning models – identifying actual models of versioning and how those could be described in DCAT.
- Non-HTTP URI Identifiers – how information about the identifier and underlying identifier system could be expressed; one option that is being discussed is to use the adms:Identifier class or a similar ‘micro-ontology’.

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<sup>20</sup> W3C Dataset Exchange Working Group Charter. <https://www.w3.org/2017/dxwg/charter>

<sup>21</sup> DXWG issue tracker on GitHub. <https://github.com/w3c/dxwg/issues>

<sup>22</sup> ODRL Information Model 2.2. W3C Recommendation 15 February 2018. <https://www.w3.org/TR/odrl-model/>

<sup>23</sup> Shapes Constraint Language (SHACL). W3C Recommendation 20 July 2017. <https://www.w3.org/TR/shacl/>

<sup>24</sup> Shape Expressions (ShEx). <http://shex.io/>

<sup>25</sup> JSON-LD Framing. n Application Programming Interface for the JSON-LD Syntax. <https://json-ld.org/spec/latest/json-ld-framing/>

## **7 NEXT STEPS**

The next activity to be undertaken is the consideration of all of the open issues listed in section 3 as well as the issues mentioned in section 4 in the context of the next minor semantic release. The closing date of change requests for the minor semantic category is September 2018 and the scheduled release date is November 2018.

In the context of the preparation of the next minor semantic release in September-November 2018, it is possible that the DCAT-AP Working Group decides that some of the open issues need to be considered in more depth for the next major semantic release. The next major semantic release is scheduled for release in November 2019, with discussions in the DCAT-AP Working Group to start from March 2019.