JATS <article-version> change request

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With the recent increase in availability of early versions of journal articles it is becoming more important for the journal article XML to contain information about article version or article status. This change request for the Journal Article Tag Suite version 1.1 is to add an element to hold article version information. Article version information includes the status of the document (e.g. accepted manuscript, version of record), and details that may include date modified, person name, company name, and notes. This change request is based upon the NISO Journal Article Versions recommendation (NISO-RP-8-2008), a custom JATS extension in use at one journal publisher, and informed by a survey of other document formats.

Specifically, this change request is to add a new element <article-version> within <article-meta>, which will have one required attribute article-version-type. The <article-version> element will use existing JATS common attributes, the content-type attribute, and elements date, contrib, and p.

The information to be tagged in the <article-version> element is distinctly different from existing JATS elements that hold information related to an article’s publication history. The <history> element is intended to capture important dates of the article's publication history other than date of publication, such as date submitted and date accepted. Also, the <history> element can contain mixed text and element content so it is not easily extended to the purpose of <article-version>. The <pub-date> element is intended to capture date of publication. In contrast, the <article-version> element is intended to capture the status of the article instance and details about the production of the document.

## <article-version> Article Version

Article version information including status of the article (e.g. version of record, accepted manuscript), and details related to production of a version such as date modified, person name, company name, and notes.

### Remarks

The <article-version> element may be used for such purposes as to:

* Identify the status of the article as version-of-record, accepted-manuscript, proof, etc.
* Record name of the company or vendor that created the XML
* Record date, person name, and description of modifications to the file by production staff

When the <article-version> element is used, the @article-version-type attribute must be present to indicate the status of the article.

The <article-version> element may record when, by whom and what was done in creation and maintenance of an article. This information can be a useful record for production staff, and is not part of the content of the article.

Within <article-version>, the <date> element may be used to record the date or a timestamp when the document was updated.

Within <article-version>, the <contrib> element may be used to record information such as person name, company name, and role about who has contributed physically to the production or maintenance of the article. This information would not appear in the author list of the article.

Within <article-version>, the <p> element may be used to capture remarks, such as a brief summary describing changes made to the document.

Within <article-version>, the <self-uri> element may be used to hold a link, such as a URL pointing to where the version is available online.

The <article-version> element may be used more than once to record changes made to a document over time. If the <article-version> element is repeated, the @article-version-type attribute on the outermost <article-version> element should hold the *current* status of the article.

### Attributes

|  |  |
| --- | --- |
| article-version-type | Article Version Type |
| content-type | Content Type |
| id | Document Internal Identifier |
| xml:base | Base |

### Content Model

((date?, contrib\*, p\*, self-uri\*) | article-version\*)

### This element may be contained in:

<article-meta>

### Examples

Minimally tagged article status “Version of Record”:

|  |
| --- |
| <article-meta>  <article-id pub-id-type="doi">10.0000/example</article-id>  <article-version article-version-type="version-of-record"/>  <title-group>  <article-title>Inducing Friendly Metafiction: Euphony and Allegory in Example</article-title>  </title-group>  ... </article-meta> |

Minimally tagged article status “Accepted Manuscript”:

|  |
| --- |
| <article-meta>  <article-id pub-id-type="doi">10.0000/example</article-id>  <article-version article-version-type="accepted-manuscript"/>  <title-group>  <article-title>Inducing Friendly Metafiction: Euphony and Allegory in Example</article-title>  </title-group>  ... </article-meta> |

Digitized version of record:

|  |
| --- |
| <article-meta>  <article-id pub-id-type="doi">10.0000/example</article-id>  <article-version article-version-type="digitized-version-of-record"  content-type="header">  <date> <day>25</day> <month>9</month> <year>2016</year> </date>  <contrib contrib-type="vendor">  <collab>Scan and Tag Inc.</collab>  </contrib>  <p>Scanned from hardcopy to OCR'd PDF with XML metadata and references</p>  </article-version>  <title-group>  <article-title>Diction and Hyperbole in Example</article-title>  </title-group>  ... </article-meta> |

Proof:

|  |
| --- |
| <article-meta>  <article-id pub-id-type="doi">10.0000/example</article-id>  <article-version article-version-type="proof">  <contrib contrib-type="typesetter">  <collab>Quality Typesetting LLC</collab>  </contrib>  </article-version>  <title-group>  <article-title>Diction and Hyperbole in Example</article-title>  </title-group>  ... </article-meta> |

Revised Proof:

|  |
| --- |
| <article-meta>  <article-id pub-id-type="doi">10.0000/example</article-id>  <article-version article-version-type="revised-proof">  <date iso-8601-date="2016-09-24T11:01:55.779-04:00"/>  <contrib contrib-type="production-editor">  <name>  <surname>Hune</surname>  <given-names>Arabelle</given-names>  </name>  <collab>Academic Publisher</collab>  </contrib>  <p>Incorporated changes communicated by the author</p>  </article-version>  <title-group>  <article-title>Inducing Friendly Metafiction: Euphony and Allegory in Example</article-title>  </title-group>  ... </article-meta> |

Corrected version of record:

|  |
| --- |
| <article-meta>  <article-id pub-id-type="doi">10.0000/example</article-id>  <article-version article-version-type="corrected-version-of-record">  <article-version article-version-type="corrected-version-of-record">  <date><day>25</day><month>9</month><year>2016</year></date>  <p>Corrected tagging error in MathML in formula 1.</p>  </article-version>  <article-version article-version-type="corrected-version-of-record">  <date><day>4</day><month>8</month><year>2016</year></date>  <p>Corrected incorrect surname/given-names tagging for author Henri Ono Asaba.</p>  </article-version>  <article-version article-version-type="version-of-record">  <date><day>23</day><month>7</month><year>2016</year></date>  </article-version>  </article-version>  <title-group>  <article-title>Utility of the Fibonacci Sequence in Examples</article-title>  </title-group>  ... </article-meta> |

## @article-version-type Article Version Type

Status of the article such as “version-of-record” or “accepted-manuscript”.

### Remarks

The article-version-type attribute holds the status of the article, and is required if the <article-version> element is present. The list of options to identify article status is based on the NISO Journal Article Versions Recommendations, plus key statuses in the publication process (“copy-edited-manuscript”, “revised-proof”), “preprint”, and a status to identify articles that were digitized after their original publication (“digitized-version-of-record”).

* \* NISO JAV NISO-RP-8-2008 <http://www.niso.org/publications/rp/RP-8-2008.pdf>
* Journal Article Version - Addendum <http://www.niso.org/workrooms/jav_addendum/>

### Used on element <article-version>

|  |  |
| --- | --- |
| **Value** | **Meaning** |
| preprint | Any version of an article that is made available by the author before the article has undergone formal peer review or been accepted for publication in a journal. A preprint may be a draft of an article that might still undergo revision by the author. |
| authors-original | Any version of a journal article that is considered by the author to be of sufficient quality to be submitted for formal peer review by a second party. The author accepts full responsibility for the article. May have a version number or date stamp. Content and layout as set out by the author.\* |
| submitted-manuscript-under-review | Any version of a journal article that is under formal review managed by a socially recognized publishing entity. The entity recognizes its responsibility to provide objective expert review and feedback to the author, and, ultimately, to pass judgment on the fitness of the article for publication with an “accept” or “reject” decision. May have a version number or date stamp. Content and layout follow publisher’s submission requirements.\* |
| accepted-manuscript | The version of a journal article that has been accepted for publication in a journal. A second party (the “publisher”—see “Version of Record” below for definition) takes permanent responsibility for the article. Content and layout follow publisher’s submission requirements.\* |
| copy-edited-manuscript | A version of a journal article that has been copy edited after acceptance, which typically includes editing for grammar and style consistency. Copy edited versions are usually internal process versions used during production. |
| proof | A version of a journal article that is created as part of the publication process. This includes the copy-edited manuscript, galley proofs (i.e., a typeset version that has not been made up into pages), page proofs, and revised proofs. Some of these versions may remain essentially internal process versions, but others are commonly released from the internal environment (e.g., proofs are sent to authors) and may thus become public, even though they are not authorized to be so. Content has been changed from Accepted Manuscript; layout is the publisher’s.\* |
| revised-proof | A version of a journal article that has been revised based on a proof. Revisions may include, for example, minor corrections for typographical errors. Revised proof versions are usually internal process versions used during production. |
| version-of-record | A fixed version of a journal article that has been made available by any organization that acts as a publisher by formally and exclusively declaring the article “published”. This includes any “early release” article that is formally identified as being published even before the compilation of a volume issue and assignment of associated metadata, as long as it is citable via some permanent identifier(s). This does not include any “early release” article that has not yet been “fixed” by processes that are still to be applied, such as copy-editing, proof corrections, layout, and typesetting.\* |
| digitized-version-of-record | A version of the Version of Record of a journal article that has been digitized after the initial publication of the article. A digitized version is usually created by converting or scanning archival content. Digitized versions might be tagged according to different standards than documents that are born digital. |
| corrected-version-of-record | A version of the Version of Record of a journal article in which errors in the VoR have been corrected. The errors may be author errors, publisher errors, or other processing errors.\* |
| enhanced-version-of-record | A version of the Version of Record of a journal article that has been updated or enhanced by the provision of supplementary material.\* |

Restriction @article-version-type is required; it must be provided if the element is used.

# Appendix A: Survey of other formats

This survey of how version information is modeled in other document formats informed this change request, and may provide some guidance for XML conversion.

## CrossRef DOI submission API

The XML format for registering DOIs with CrossRef allows article status to be included with DOI data.

|  |  |
| --- | --- |
| **CrossRef common4.4.0.xsd** | **JATS <article-version>** |
| resource/@content\_version  enumerated value list:   * vor (version of record) * am (advance manuscript) | article-version/@article-version-type  corresponding values:   * version-of-record * accepted-manuscript |

References

* <http://www.crossref.org/help/schema_doc/4.4.0/common4_4_0_xsd.html#resource>
* <http://www.crossref.org/help/schema_doc/4.4.0/common4_4_0_xsd.html#resource_content_version>

## TF JATS 1.0

Taylor & Francis’ JATS Archiving DTD 1.0 extension includes custom elements and attributes to hold article status, and details including timestamp, person name, company name, and notes. This extension has added one required attribute to hold article status (@stage), and one required and repeatable element (<tf:tagger>) to hold details about who created or modified the document.

|  |  |
| --- | --- |
| **TF JATS 1.0** | **JATS <article-version>** |
| tf:article-status/@stage | article-version/@article-version-type |
| tf:article-status/tf:tagger/@iso-8601-date | article-version/date/@iso-8601-date |
| tf:article-status/tf:tagger/@name | article-version/contrib/collab |
| tf:article-status/tf:tagger/@person-name | article-version/contrib/name |
| tf:article-status/tf:tagger/text() | article-version/p |

## Microsoft Word docx

The Office Open XML .docx format used by Microsoft Word includes status information about the document contained within a coreProperties XML file.

|  |  |
| --- | --- |
| **.docx docProps core.xml coreProperties** | **JATS <article-version>** |
| dcterms:modified | article-version/date |
| cp:lastModifiedBy | article-version/contrib/name |
| dc:description | article-version/p |

## ISOSTS

ISOSTS includes an element to indicate the maturity of a document using a controlled list that includes values such as WD (Working Draft) and IS (International Standard). This element is analogous to article version, although the statuses that are meaningful in the production of standards are different than the statuses that are meaningful in journal articles.

|  |  |
| --- | --- |
| **ISOSTS** | **JATS <article-version>** |
| release-version | article-version/@article-version-type |

References

* <http://www.iso.org/schema/isosts/v1.1/doc/n-7ev0.html>

## DITA

DITA provides a set of elements to record a history of changes to a document, including person name, organization name, date of change, change summary, and other details. The model allows a log of changes to a document to be recorded.

|  |  |
| --- | --- |
| **DITA topic** | **JATS <article-version>** |
| change-historylist/change-item/change-completed | article-version/date |
| change-historylist/change-item/change-person | article-version/contrib/name |
| change-historylist/change-item/change-organization | article-version/contrib/collab |
| change-historylist/change-item/change-summary | article-version/p |

References

* <https://docs.oasis-open.org/dita/dita/v1.3/cos02/part3-all-inclusive/langRef/technicalContent/change-historylist.html>

## TEI

TEI provides an attribute revisionDesc/@status to indicate the current status of a document. The <revisionDesc> element can contain multiple <change> elements to document changes made during the production or revision of a document including such information as person name, date of change, and description of the change.

|  |  |
| --- | --- |
| **TEI** | **JATS <article-version>** |
| revisionDesc/@status | article-version/@article-version-type |
| revisionDesc/change/@when-iso | article-version/date/@iso-8601-date |
| revisionDesc/change/@who | article-version/contrib/name |
| revisionDesc/change/text() | article-version/p |

References

* <http://www.tei-c.org/release/doc/tei-p5-doc/en/html/ref-revisionDesc.html>
* <http://www.tei-c.org/release/doc/tei-p5-doc/en/html/ref-att.docStatus.html>

## DocBook

DocBook provides elements <revhistory> and <revision> to record a history of revisions to a document. Information that can be captured for each revision includes revision number, date, author, and description.

|  |  |
| --- | --- |
| **DocBook** | **JATS <article-version>** |
| revhistory/revision/date | article-version/date |
| revhistory/revision/author/personname | article-version/contrib/name |
| revhistory/revision/author/orgname | article-version/contrib/collab |
| revhistory/revision/revremark | article-version/p |
| revhistory/revision/revdescription | article-version/p |

References

* <http://docbook.org/tdg5/en/html/revhistory.html>
* <http://docbook.org/tdg5/en/html/revision.html>

# Appendix B: DTD, RNG and XSD models

This appendix provides implementations of the <article-version> element in DTD, RNG and XSD editions of NISO JATS Archiving and Interchange Version 1.1.

## DTD model

**JATS-articlemeta1.ent**

|  |
| --- |
| <!-- ARTICLE VERSION ATTRIBUTES --> <!-- Attributes for the <article-version> element --> <!ENTITY % article-version-atts  "%jats-common-atts;   content-type  CDATA #IMPLIED  article-version-type (  preprint  | authors-original  | submitted-manuscript-under-review  | accepted-manuscript  | copy-edited-manuscript  | proof  | revised-proof  | version-of-record  | digitized-version-of-record  | corrected-version-of-record  | enhanced-version-of-record   ) #REQUIRED ">  <!-- ARTICLE VERSION -->  <!ENTITY % article-version-model  "(date?, contrib\*, p\*, self-uri\*)" >  <!ELEMENT article-version %article-version-model; > <!ATTLIST article-version %article-version-atts; >  <!-- ARTICLE METADATA MODEL --> <!-- Complete content model for the <article-meta>  element, which names the journal article  metadata --> <!ENTITY % article-meta-model  "(article-id\*, article-version?, article-categories?,  title-group?,  (%contrib-group.class; |  %aff-alternatives.class;)\*,  author-notes?, pub-date\*,  volume\*, volume-id\*, volume-series?,  issue\*, issue-id\*, issue-title\*,  issue-sponsor\*, issue-part?,   volume-issue-group\*, isbn\*,  supplement?,  ( (fpage, lpage?, page-range?) |  elocation-id )?,  (%address-link.class; | product |  supplementary-material)\*,  history?, permissions?, self-uri\*,  (%related-article.class;)\*,   (%abstract.class;)\*,  trans-abstract\*, (%kwd-group.class;)\*,  funding-group\*, conference\*, counts?,   custom-meta-group?)" > |

**JATS-archivecustom-models1.ent**

|  |
| --- |
| <!-- ARTICLE METADATA MODEL --> <!-- Content model for the metadata that is  specific to the article. --> <!ENTITY % article-meta-model  "(article-id\*, article-version?, article-categories?,  title-group?,  (%contrib-group.class; |  %aff-alternatives.class; | %x.class;)\*,  author-notes?, pub-date\*,  volume\*, volume-id\*, volume-series?,  issue\*, issue-id\*, issue-title\*,  issue-sponsor\*, issue-part?,   volume-issue-group\*, isbn\*,  supplement?,  ( ( (fpage, lpage?)?, page-range?) |  elocation-id )?,  (%address-link.class; | product |  supplementary-material)\*,  history?, permissions?, self-uri\*,  (%related-article.class;)\*,   (%abstract.class;)\*, trans-abstract\*,   (%kwd-group.class;)\*, funding-group\*,  conference\*, counts?, custom-meta-group?)" > |

## RNG model

**JATS-article-version.ent.rng**

|  |
| --- |
| <?xml version="1.0" encoding="UTF-8"?> <grammar   xmlns="http://relaxng.org/ns/structure/1.0"  xmlns:a="http://relaxng.org/ns/compatibility/annotations/1.0"  datatypeLibrary="http://www.w3.org/2001/XMLSchema-datatypes">    <define name="article-version">  <element name="article-version">  <attribute name="article-version-type">  <choice>  <value>preprint</value>  <value>authors-original</value>  <value>submitted-manuscript-under-review</value>  <value>accepted-manuscript</value>  <value>copy-edited-manuscript</value>  <value>proof</value>  <value>revised-proof</value>  <value>version-of-record</value>  <value>digitized-version-of-record</value>  <value>corrected-version-of-record</value>  <value>enhanced-version-of-record</value>  </choice>  </attribute>  <optional>  <attribute name="content-type"/>  </optional>  <ref name="jats-common-atts"/>  <optional>  <ref name="date"/>  </optional>  <zeroOrMore>  <ref name="contrib"/>  </zeroOrMore>  <zeroOrMore>  <ref name="p"/>  </zeroOrMore>  <zeroOrMore>  <ref name="self-uri"/>  </zeroOrMore>  </element>  </define>  </grammar> |

**JATS-archivecustom-models1.ent.rng**

|  |
| --- |
| <!-- ARTICLE METADATA MODEL -->  <!--  Content model for the metadata that is  specific to the article.  -->  <define name="article-meta-model">  <zeroOrMore>  <ref name="article-id"/>  </zeroOrMore>  <optional>  <ref name="article-version"/>  </optional>  <optional>  <ref name="article-categories"/>  </optional>  <optional>  <ref name="title-group"/>  </optional>  <zeroOrMore>  <choice>  <ref name="contrib-group.class"/>  <ref name="aff-alternatives.class"/>  <ref name="x.class"/>  </choice>  </zeroOrMore>  <optional>  <ref name="author-notes"/>  </optional>  <zeroOrMore>  <ref name="pub-date"/>  </zeroOrMore>  <zeroOrMore>  <ref name="volume"/>  </zeroOrMore>  <zeroOrMore>  <ref name="volume-id"/>  </zeroOrMore>  <optional>  <ref name="volume-series"/>  </optional>  <zeroOrMore>  <ref name="issue"/>  </zeroOrMore>  <zeroOrMore>  <ref name="issue-id"/>  </zeroOrMore>  <zeroOrMore>  <ref name="issue-title"/>  </zeroOrMore>  <zeroOrMore>  <ref name="issue-sponsor"/>  </zeroOrMore>  <optional>  <ref name="issue-part"/>  </optional>  <zeroOrMore>  <ref name="volume-issue-group"/>  </zeroOrMore>  <zeroOrMore>  <ref name="isbn"/>  </zeroOrMore>  <optional>  <ref name="supplement"/>  </optional>  <optional>  <choice>  <group>  <optional>  <ref name="fpage"/>  <optional>  <ref name="lpage"/>  </optional>  </optional>  <optional>  <ref name="page-range"/>  </optional>  </group>  <ref name="elocation-id"/>  </choice>  </optional>  <zeroOrMore>  <choice>  <ref name="address-link.class"/>  <ref name="product"/>  <ref name="supplementary-material"/>  </choice>  </zeroOrMore>  <optional>  <ref name="history"/>  </optional>  <optional>  <ref name="permissions"/>  </optional>  <zeroOrMore>  <ref name="self-uri"/>  </zeroOrMore>  <zeroOrMore>  <ref name="related-article.class"/>  </zeroOrMore>  <zeroOrMore>  <ref name="abstract.class"/>  </zeroOrMore>  <zeroOrMore>  <ref name="trans-abstract"/>  </zeroOrMore>  <zeroOrMore>  <ref name="kwd-group.class"/>  </zeroOrMore>  <zeroOrMore>  <ref name="funding-group"/>  </zeroOrMore>  <zeroOrMore>  <ref name="conference"/>  </zeroOrMore>  <optional>  <ref name="counts"/>  </optional>  <optional>  <ref name="custom-meta-group"/>  </optional>  </define> |

**JATS-archive-oasis-article1-mathml3.rng**

|  |
| --- |
| <include href="JATS-article-version.ent.rng"/> |

## XSD model

**JATS-archive-oasis-article1-mathml3-elements.xsd**

|  |
| --- |
| <xsd:element name="article-version">  <xsd:annotation>  <xsd:documentation>  <div xmlns="http://www.w3.org/1999/xhtml">  <h3>Article Version</h3>  </div>  </xsd:documentation>  </xsd:annotation>  <xsd:complexType>  <xsd:group ref="article-version-model"/>  <xsd:attribute name="id" use="optional" type="xsd:ID"/>  <xsd:attribute ref="xml:base" use="optional"/>  <xsd:attribute name="content-type" use="optional" type="xsd:string"/>  <xsd:attribute name="article-version-type" use="required">  <xsd:simpleType>  <xsd:restriction base="xsd:NMTOKEN">  <xsd:enumeration value="preprint"/>  <xsd:enumeration value="authors-original"/>  <xsd:enumeration value="submitted-manuscript-under-review"/>  <xsd:enumeration value="accepted-manuscript"/>  <xsd:enumeration value="copy-edited-manuscript"/>  <xsd:enumeration value="proof"/>  <xsd:enumeration value="revised-proof"/>  <xsd:enumeration value="version-of-record"/>  <xsd:enumeration value="digitized-version-of-record"/>  <xsd:enumeration value="corrected-version-of-record"/>  <xsd:enumeration value="enhanced-version-of-record"/>  </xsd:restriction>  </xsd:simpleType>  </xsd:attribute>  </xsd:complexType>  </xsd:element>  <xsd:group name="article-version-model">  <xsd:sequence>  <xsd:element ref="date" minOccurs="0" maxOccurs="1"/>  <xsd:element ref="contrib" minOccurs="0" maxOccurs="unbounded"/>  <xsd:element ref="p" minOccurs="0" maxOccurs="unbounded"/>  <xsd:element ref="self-uri" minOccurs="0" maxOccurs="unbounded"/>  </xsd:sequence>  </xsd:group>  <xsd:group name="article-meta-model">  <xsd:sequence>  <xsd:element ref="article-id" minOccurs="0" maxOccurs="unbounded"/>  <xsd:element ref="article-version" minOccurs="0" maxOccurs="1"/>  <xsd:element ref="article-categories" minOccurs="0"/>  <xsd:element ref="title-group" minOccurs="0"/>  <xsd:choice minOccurs="0" maxOccurs="unbounded">  <xsd:group ref="contrib-group.class"/>  <xsd:group ref="aff-alternatives.class"/>  <xsd:group ref="x.class"/>  </xsd:choice>  <xsd:element ref="author-notes" minOccurs="0"/>  <xsd:element ref="pub-date" minOccurs="0" maxOccurs="unbounded"/>  <xsd:element ref="volume" minOccurs="0" maxOccurs="unbounded"/>  <xsd:element ref="volume-id" minOccurs="0" maxOccurs="unbounded"/>  <xsd:element ref="volume-series" minOccurs="0"/>  <xsd:element ref="issue" minOccurs="0" maxOccurs="unbounded"/>  <xsd:element ref="issue-id" minOccurs="0" maxOccurs="unbounded"/>  <xsd:element ref="issue-title" minOccurs="0" maxOccurs="unbounded"/>  <xsd:element ref="issue-sponsor" minOccurs="0" maxOccurs="unbounded"/>  <xsd:element ref="issue-part" minOccurs="0"/>  <xsd:element ref="volume-issue-group" minOccurs="0" maxOccurs="unbounded"/>  <xsd:element ref="isbn" minOccurs="0" maxOccurs="unbounded"/>  <xsd:element ref="supplement" minOccurs="0"/>  <xsd:choice minOccurs="0">  <xsd:sequence>  <xsd:sequence minOccurs="0">  <xsd:element ref="fpage"/>  <xsd:element ref="lpage" minOccurs="0"/>  </xsd:sequence>  <xsd:element ref="page-range" minOccurs="0"/>  </xsd:sequence>  <xsd:element ref="elocation-id"/>  </xsd:choice>  <xsd:choice minOccurs="0" maxOccurs="unbounded">  <xsd:group ref="address-link.class"/>  <xsd:element ref="product"/>  <xsd:element ref="supplementary-material"/>  </xsd:choice>  <xsd:element ref="history" minOccurs="0"/>  <xsd:element ref="permissions" minOccurs="0"/>  <xsd:element ref="self-uri" minOccurs="0" maxOccurs="unbounded"/>  <xsd:choice minOccurs="0" maxOccurs="unbounded">  <xsd:group ref="related-article.class"/>  </xsd:choice>  <xsd:choice minOccurs="0" maxOccurs="unbounded">  <xsd:group ref="abstract.class"/>  </xsd:choice>  <xsd:element ref="trans-abstract" minOccurs="0" maxOccurs="unbounded"/>  <xsd:choice minOccurs="0" maxOccurs="unbounded">  <xsd:group ref="kwd-group.class"/>  </xsd:choice>  <xsd:element ref="funding-group" minOccurs="0" maxOccurs="unbounded"/>  <xsd:element ref="conference" minOccurs="0" maxOccurs="unbounded"/>  <xsd:element ref="counts" minOccurs="0"/>  <xsd:element ref="custom-meta-group" minOccurs="0"/>  </xsd:sequence>  </xsd:group> |