REQUIREMENTS AND RECOMMENDATIONS FOR THE DEPOSIT OF DOIS IN CROSSREF

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1. Introduction

DOI registration message format on Serial Article Version and Serial Article Work is defined in ONIX for DOI 2.0 schema (namespace *http://www.editeur.org/onix/DOIMetadata/2.0*).

The present document provides the list of additional requirements and recommendations – not expressed in the ONIX for DOI 2.0 schema - that Serial Article Version Registration Messages and Serial Article Work Registration Messages must comply with.

Compliance with Crossref Requirements is necessary for correct DOI and metadata communication to Crossref and optimal use of the service.

Compliance with Crossref Recommendations is recommended in order to optimise the searchability and the citability of the DOIs within the mEDRA and Crossref systems.

2. Requirements for DOI Registration Message

This chapter provides the list of requirements - not expressed in ONIX for DOI 2.0 schema - that a Serial Article Version Registration Message or a Serial Article Work Registration Message must comply with so that it can be properly sent to mEDRA and Crossref systems.

2.1. DOI

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <DOI>
Requirements: the <DOI> element length value must be between 6 and 2048 characters. In addition, it is not allowed to include two DOISerialArticleVersion records that refer to the same DOI in the same RegistrationMessage.

2.2. DOI Web Site Link

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <DOIWebsiteLink>
Requirements: the <DOIWebsiteLink> element length value must be between 1 and 2048 characters.

2.3. Product Identifier

It applies to: DOISerialArticleVersion
Element: <ProductIdentifier>
Requirements: are sent to Crossref:
  - the first ten <ProductIdentifier> with child element <ProductIDType> equal to 10 and value of the child element <IDValue> with a length smaller or equal to 255 characters;
  - the first three <ProductIdentifier> with child element <ProductIDType> equal to 01 and value of the child element <IDValue> with a length smaller or equal to 32 characters.

2.4. Work Identifier

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <SerialPublication>/<SerialWork>/<WorkIdentifier>
Requirements: only the first <WorkIdentifier> with child element <WorkIDType> equal to 08 is sent to Crossref. Here the child element <IDValue> must have a maximum length of 6 characters.

2.5. The Title of a Serial Work

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <SerialPublication>/<SerialWork>/<Title>
Requirements: at least one Title group with child element <TitleType> equal to 01 (distinctive title) must be present. The first ten <Title> with child element <TitleType> equal to 01 are sent to Crossref. The value of the child element <IDValue> is truncated at the 255th character.
If present, also the first ten <Title> with child element <TitleType> equal to 05 are sent to Crossref. Here, the value of the child element <IDValue> is truncated at the 150th character.

2.6. The Product Identifier of a Serial Version

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <SerialPublication>/<SerialVersion>/<ProductIdentifier>
Requirements: there must be at least one ProductIdentifier group with child element <ProductIDType> equal to 07 (ISSN, if the journal has an ISSN) or 06 (DOI, if the journal does not have an ISSN). If the journal has an ISSN, the value of the child element <IDValue> must comply with the ISSN syntax (4 digits + dash (optional) + 3 digits + 1 digit or the X character). The first six <ProductIdentifier> with child element <ProductIDType> of 07 are sent to Crossref.
If the journal does not have an ISSN, in order to be able to submit articles of that journal to Crossref you first need to register only on mEDRA a DOI for the journal using the Serial Title Work format, and then include that DOI as value of the child element <IDValue>. Only one <ProductIdentifier> with child element <ProductIDType> equal to 06 can be included.

2.7. The Journal Issue Date of a Journal Issue

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <JournalIssue>/<JournalIssueDate>
Requirements: at least one <JournalIssueDate> element with child element <DateFormat> other than 12 must be present. The date given in <Date> must comply with ONIX specifications. In addition, the year must be between 1400 and 2200.

2.8. The Title of a Content Item

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <ContentItem>/<Title>
Requirements: at least one <Title> with the value of the child element <TitleType> equal to 01 must be present. Only the first 20 <Title> with the value of the child element <TitleType> equal to 01 are sent to Crossref.

2.9. The Contributor of a ContentItem

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <ContentItem>/<Contributor>
Requirements:
- the first author must always be provided, i.e. there must be one <Contributor> element with the value of the child element <SequenceNumber> equal to 1, 01 or 001, and the value of the child element <ContributorRole> equal to A01;
- only the <Contributor> with a child element <KeyNames> or a <CorporateName> and a child element <ContributorRole> with value equal to A01, B01, B02, B06, B11, B12, B13, B14, B15, B16, B19, B20, or B21 are sent to Crossref;
- it must be pointed out that the values contained in the elements <KeyNames> and <NamesBeforeKey> are sent to Crossref after deleting any initial, final, and multiple internal spaces, any digits and the ? character;

- the length value of <KeyNames> without spaces, digits, and ? must be smaller or equal to 35 characters.
- the <NamesBeforeKey> element is only sent if the length of its value without spaces, digits, and ? is smaller or equal to 35 characters;
- the length value of <CorporateName> must be smaller or equal to 511 characters.

2.10. The Identifier of a Contributor

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <ContentItem>/<Contributor>/<NameIdentifier>
Requirements: only the first <NameIdentifier> group with child element <NameIDType> equal to 21 (ORCID ID) is sent to Crossref. Crossref accepts ORCID ID expressed only in the following form: http://orcid.org/xxxx-xxxx-xxxx-xxxx.

2.11. The Publication Date of a Content Item

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <ContentItem>/<PublicationDate>
Requirements: it is mandatory to give one <PublicationDate>. The publication year must be between 1400 and 2200.

2.12. The DOI of an Article Citation

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <ContentItem>/<cl:CitationList>/</cl:ArticleCitation>/<cl: DOI>[1]
Requirements: the <DOI> element length value must be between 6 and 2048 characters.

3. Recommendations for DOI Registration Message

This chapter contains some recommendations that, if followed, can help maximise the effectiveness of the deposit of DOIs and citations in Crossref.

3.1. The Journal Volume Number of a Journal Issue

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <JournalIssue>/<JournalVolumeNumber>
Recommendations: the <JournalVolumeNumber> is only sent to Crossref if its value does not exceed 15 characters.

3.2. The Journal Issue Number of a Journal Issue

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <JournalIssue>/<JournalIssueNumber>
Recommendations: the <JournalIssueNumber> element is only sent to Crossref if its value does not exceed 15 characters. If the <JournalIssueNumber> element is not present or its value exceeds 15 characters, the <JournalIssueDesignation> element will be sent, but only if its value has a length smaller or equal to 15 characters.

3.3. The Journal Issue Designation of a Journal Issue

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <JournalIssue>/<JournalIssueDesignation>

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[1] the alias *cl* refers to the Citation namespace: *http://ra.publications.europa.eu/schema/oxix/DOIMetadata/2.0/Citations.*

Recommendations: the <JournalIssueDesignation> element is only sent to Crossref if not even one <JournalIssueNumber> element with length value smaller or equal to 15 characters is present, but only if its value does not exceed 15 characters.

3.4. The Language of a Content Item

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <ContentItem>/<Language>
Recommendations: only the first <Language> element with child element <LanguageRole> equal to 01 and child element <LanguageCode> equal to eng, cat, dut, fre, ger, hun, ita, por, rus, or spa is sent to Crossref.

3.5. The Page Run of a Text Item

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <ContentItem>/<TextItem>/<PageRun>
Recommendations: only the first <PageRun> element is sent to Crossref, but only if the value of its child element <FirstPageNumber> has a length smaller or equal to 15 characters. The child element <LastPageNumber> is only sent to Crossref if its value has a length smaller or equal to 15 characters.

3.6 The Professional Affiliation of a Contributor

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <ContentItem>/<Contributor>/<ProfessionalAffiliation>
Recommendations: only the first 5 <ProfessionalAffiliation> elements with the value of the child element <Affiliation> with a length smaller or equal to 512 characters are sent to Crossref.

3.7. The Journal Volume Number of an Article Citation

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <ContentItem>/<cl:CitationList>/<cl:ArticleCitation>/<cl:JournalVolumeNumber>
Recommendations: the <cl:JournalVolumeNumber> element is only sent to Crossref if its length value is smaller or equal to 15 characters.

3.8. The Journal Issue Number of an Article Citation

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <ContentItem>/<cl:CitationList>/<cl:ArticleCitation>/<cl:JournalIssueNumber>
Recommendations: the <cl:JournalIssueNumber> element is only sent to Crossref if its length value is smaller or equal to 15 characters.

3.9. The First Page Number of an Article Citation

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <ContentItem>/<cl:CitationList>/<cl:ArticleCitation>/<cl:FirstPageNumber>
Recommendations: the <cl:FirstPageNumber> element is only sent to Crossref if its length value is smaller or equal to 15 characters.

3.10. The Number Within Series of an Article Citation

It applies to: DOISerialArticleVersion, DOISerialArticleWork
Element: <ContentItem>/<cl:CitationList>/<cl:ArticleCitation>/<cl:NumberWithinSeries>
Recommendations: the <cl:NumberWithinSeries> is only sent to Crossref if its length value is smaller or equal to 15 characters.

3.11. The Edition Number of an Article Citation

It applies to: DOISerialArticleVersion, DOISerialArticleWork

Element: <ContentItem>/<cl:CitationList>/<cl:ArticleCitation>/<cl:EditionNumber>

Recommendations: the <cl:EditionNumber> element is only sent to Crossref if its value length is smaller or equal to 15 characters.

3.12. The Component Number of an Article Citation

It applies to: DOISerialArticleVersion, DOISerialArticleWork

Element: <ContentItem>/<cl:CitationList>/<cl:ArticleCitation>/<cl:ComponentNumber>

Recommendations: the <cl:ComponentNumber> element is only sent to Crossref if its value length is smaller or equal to 50 characters.

3.13. The Journal Issue Date of an Article Citation

It applies to: DOISerialArticleVersion, DOISerialArticleWork

Element: <ContentItem>/<cl:CitationList>/<cl:ArticleCitation>/<cl:JournalIssueDate>

Recommendations: it is recommended to specify the value in <cl:Date> element in a structured format (i.e. not as a free text string) out of those allowed for the <cl:DateFormat> element. It is recommended not to use value 12 (free text string format) in <cl:DateFormat>. Value in <cl:Date> element must be consistent with the format specified in <cl:DateFormat>. Only the year (YYYY) or range of years (YYYY-YYYY) extracted from the value in <cl:Date> are sent to Crossref.