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Documentation for the Publication and Citation of Social and Economic Data

Version 4.0

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GESIS Papers

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Contents

1 Introduction

1.1 The Registration Agency da|ra

da|ra operates as the registration agency for social science and economic data jointly run by GESIS (https://www.gesis.org) and ZBW (http://www.zbw.eu). da|ra pursues the goal of long-term, persistent identification and availability of research data via allocation of DOI names. In keeping with the ideals of good scientific practice, there is a demand for open access to existing primary data so as not to have only the final research results but also be able to reconstruct the entire research process. GESIS and ZBW, therefore, offer a registration service for social and economic research data in cooperation with DataCite (https://www.datacite.org), an international consortium pursuing the goal of supporting the acceptance of research data as independent citable scientific objects. This infrastructure lays the foundation for long-term, persistent identification, storage, localization and reliable citation of research data.

Benefits of DOI names:

- **Permanent, persistent identification:** Each DOI name uniquely, unequivocally and permanently identifies the assigned object.
- **Availability of information on the web:** Via the Handle System, each DOI name refers to one or more web pages assigned by the publication agent.
- **Semantic interoperability:** The metadata associated with a DOI name enable direct, precise communication – with each user, from every location, and at every point in the production/distribution chain – with regard to every detail of the objects related with one another.

The DOI name is comprised of a unique alphanumeric character string; a prefix and suffix, whereby the prefix always begins with "10" and prefix and suffix are separated by a forward slash. Prefixes are assigned by the International DOI Foundation (IDF; https://www.doi.org) via DataCite. Each data centre is assigned its own prefix thus permitting an unlimited number of DOI names. The suffix is agreed by the publication agent in conjunction with da|ra.

Each DOI name permanently identifies the assigned object as an entity regardless of whether the storage location changes. Updated, structured metadata is assigned to the resource using the DOI name. The allocation of DOI names to the objects transpires automatically following the successful transmission of the metadata per object to be registered.

da|ra obtains the DOI names via the GESIS membership in DataCite. DataCite is accredited as an official DOI registration agency within the IDF.

da|ra governs the assignment of DOI names. It functions as the DOI allocation agency and is not-for-profit. Besides the DOI allocation, da|ra is responsible for the elaboration of the service agreement (Service Level Agreement) together with the publication agents as well as for the administration of metadata. The data centres are responsible for both the maintenance and the storage of metadata.

Ensuring that metadata is persistent does not exclude its modifiability: data producers have the opportunity to amend the metadata whenever and as often as is necessary.

1.2 The da|ra Metadata Schema

The da|ra Metadata Schema is a list of core metadata properties chosen for the identification of data and retrieval purposes. Each DOI name is linked to a set of metadata, a collection of bibliographical and content information, which describe in detail the registered resources (title, author, publication date, copyright, etc.) and present the properties of resources, their structure, and contextual relations.

The da|ra Metadata Schema provides a determined number of mandatory elements – core properties –, that have to be submitted by the publication agent at the time of data registration. Publication agents may also choose to use optional properties to identify their data more clearly.

For all metadata properties the respective sequence, names, usage notes, definitions, attributes, conditions, cardinality (maximum occurrence) as well as value domains are defined. Some properties comply with ISO norms. These norms determine e. g. which code for a language or geographic coverage has to be applied. Controlled vocabularies (CVs) such as thesauri and classifications are applicable. These vocabularies are complemented by da|ra controlled terms.

Although da|ra complies with the official DataCite Metadata Schema, it has broadened the DataCite metadata by adding some specific properties related to the social sciences and economics. Where properties correspond to DataCite, definitions and usage notes are largely identical.

Please note that da|ra reserves the right to share metadata with information indexes and other entities.[1] da|ra metadata are subject to Creative Commons CC0 license.

1.3 Version 4.0 Update

The current version 4.0 is based on the version 3.1 of the da|ra Metadata Schema and has been further developed in line with the DataCite Metadata Schema Version 4.1 to achieve a better coverage of social and economic research data outputs for all resource types that are used in the DataCite Metadata Schema 4.1.

Version 4.0 of the da|ra Metadata Schema introduces some notable changes:

- All languages are allowed for metadata information. The code for the language must comply with the ISO 639-1 standard.
- The metadata element ‘resourceLanguage’ can be provided in any language, corresponding to ISO Code 639-3.
- To be congruent with DataCite 4.1 all resource types can be registered with da|ra. There is no restriction anymore.
  In this context, the controlled vocabulary (CV) has been adjusted: ‘Audio’ and ‘Video’ have been deprecated in favor of ‘Audiovisual’.

1 See da|ra Service Level Agreement and Policy in its respective current form http://www.da-ra.de/en/about-us/da-ra-policy/.

- Following changes affect all previously used CVs:
    - Vocabularies were updated and adapted to DataCite and DDI vocabularies.
    - Values were changed from IDs to human readable codes.

      It would go too far to list all changes in detail being made. For a comprehensive overview, please see appendix 4.1.
- Following additions have been made to CVs:
    - Type ‘DataPaper’ has been added to the CV ‘resourceType’,
    - Types ‘Weighting’ and ‘TechnicalInfo’ have been added to the CV ’descriptionType’,
    - Types ‘IsDescribedBy’, ‘Describes’, ‘HasVersion’, ‘IsVersionOf’, ‘IsRequiredBy’, and ‘Requires’ have been added to the CV ’relationType’,
    - Type ‘IGSN’ has been added to CV ’pidType’.
- New CVs are used in context to newly added properties:
    - CV ’identifierSchemaType’ in the context of the introduction of ’fundingReferences’, characterizing the type of the sub-property funderIdentifier,
    - CV ’licenseType’ is related to the newly introduced sub-property ‘licenseType’ belonging to the property ‘rights’. This CV includes the current Creative Common licenses, version 4.0.
- Additionally introduced properties are:
    - ‘embargoDate’ as a new sub-property within ‘availability’,
    - ‘geoLocationPolygon’ as a new sub-property within ‘geographicCoverages’,
    - ‘keywordSchema’ as a new sub-property within ‘freeKeyword’,
    - ‘publisher’ as a new property with sub-property ’person’ or ’institution’ (the sub-properties ’affiliationName ’ and ’institutionName ’ are not language-dependent),
    - ‘resourceType’ as a new sub-property for ‘relatedIdentifier’,
    - ‘fundingReferences’ as a new property (the sub-properties ’affiliationName’ and ’institutionName’ are not language-dependent). Please note that in conjunction with this newly introduced metadata property the contributorType ‘funder’ is deprecated and cannot be used anymore.

      ’fundingReferences’ contains one or more information on a ’fundingReference’ which can be a ’person’ or ’institution’. In addition to this, the new sub-property 'award' includes information on
        - ‘awardNumber’
        - ‘awardURI’
        - ‘awardTitle’
- Properties listed below were refactored; mostly a wrapper has been added to support multilingual metadata particularly for repeatable information. Please, see table 3 for all changes in detail.

  - ’timeDimensions’
  - ’temporalCoverages’
  - ’geographicCoverages’
  - ’dataSets’
  - ’collectionModeType’ and ’collectionModesFree’ belong to the newly added container ’collectionModes’ now. Because ’collectionMode’ within ’collectionModes’ is repeatable the property ’collectionModeType’ can be used more than once as requested by our users.
- Removal of sub-property ‘sowiportID’ within ‘structuredPublication’.
- Renaming of few sub-properties to ‘freetext’ for the sake of consistency within the following properties:
  - ’rightsText’
  - ’availabilityText’
  - ’modeFree’
- Renaming of the property ‘glplace‘ to ‘publicationPlace‘.
- Renaming of controlled vocabularies listed below:
  - ‘availabilitycontrolled to ‘availabilityType’
  - ‘type’ to ‘descriptionType’
  - ‘timeDimensionControlled’ to ‘timeDimensionType’
  - ‘collectionModeControlled’ to ‘collectionModeType’
  - ‘docType’ to ‘documentType’
  - ‘identifierSchema’ to ‘identifierSchemaType’
  - ‘licenceControlled’ to ‘licenseType’
  - ‘schema’ to ‘keywordSchemaType’
  - ‘schema’ to ‘classificationSchemaType’
- Renaming of ‘schema’ within ‘classificationExternal’ und ‘freeKeyword’ to:
  - ‘classificationSchema’
  - ‘keywordSchema’
- Subproperties ‘affiliationName’ and ‘institutionName’, belonging to ‘creator’ and ‘contributor’, are no longer language-dependent.

Please note that the da|ra Metadata Schema Version 3.1 is no longer valid for DOI registration via da|ra.

1.4 Essential technical information

Please note that the usage of the elements 3.1 ‘identifier’ and 3.2 ‘currentVersion’ in the container element 3 ‘resourceIdentifier’ needs special attention. Both elements are not mandatory; however, they constitute the primary key of a metadata set in our database and cannot be changed once the metadata set has been created. Since both elements have to be provided to update an existing metadata set, we strongly recommend using your own identifier and current Version when creating a metadata set using the da|ra API or our web interface upload functionality. To this end, we also strongly recommend implementing your own system for identifying and versioning the metadata sets using these elements. If no identifier and current Version are provided, they will be automatically generated by da|ra.

2 da|ra Metadata Properties

2.1 Mandatory properties

As in previous versions, only a few metadata information are mandatory. To register a DOI name the following information is required:

- ‘resourceType’, specifying the general resource type, e.g. ‘Dataset’, ‘Text’, etc.
- ‘title’ of the resource
- details on ‘creators’; at least the name
- ‘publicationDate’
- ‘availability’ of the resource by giving availabilityType information, e.g. ‘Download’/‘On-site’
- ‘dataURL’ (URL of the landing page to which the DOI should be resolved.)

2.2 Recommended properties

Besides the level of obligation above, there are also recommended properties. Technically those properties are optional but strongly recommended to enhance the prospects that metadata can be found, cited and linked to original research. These are as follows:

- ‘resourceTypesFree’ describing the type of resource more precisely
- ‘resourceIdentifier’, ideally with ‘identifier’ and ‘currentVersion’ for better maintenance of data
- ‘doiProposal’ instead of generating the DOI suffix automatically by the da|ra system
- ‘publisher’
- ‘resourceLanguage’
- ‘classifications’
- ‘controlledKeywords’
- ‘descriptions’
- ‘geographicCoverages’
- ‘contributors’
- ‘fundingReferences’
- ‘identifiers’ for a person as well as an institution related to ‘creators’, ‘contributors’, ‘publisher’ and ‘fundingReferences’
- ‘fingerprint’ and ‘fingerprintMethod’ related to the file information within the datasets
- ‘relations’

2.3 Multilingual support

da|ra supports multilingual metadata. Therefore the description of a resource can be provided in any language compliant with ISO 639-1. However, for a better discovery, we recommend at least metadata in English. To describe the language of a resource itself, the recommended property ‘resourceLanguage’ may be used.

The following properties and sub-properties are language-dependent whereby repeatable and non-repeatable information in terms of multilingual input might behave differently according to the specifications. Elements listed below are repeatable in different languages but only allowed once in each language used for metadata information:

- ‘resourceTypeFree’
- ‘title’
- ‘collectiveTitle’
- ‘availabilityFree’
- ‘right’
- ‘freeKeyword’
- ‘universe’
- ‘sampling’
- ‘awardTitle’
- ‘note’

Besides the listed elements above additional language-dependent metadata are: ‘otherTitle’, ‘description’, ‘geographicCoverageFree’, ‘temporalCoverageFree’, ‘timeDimensionFree’, ‘frequency’, ‘collectionModeFree’, ‘dataType’ (relates to dataset information belonging to a resource) and ‘classificationExternal’. These metadata properties are repeatable regardless of the provided language.

2.4 The Metadata Schema with all properties explained in detail

Table 3 contains a detailed description of all properties the da|ra Metadata Schema includes.

For an example of how to submit in XML format, please see the XML examples for all resource types provided on the da|ra website http://www.da-ra.de/en/technical-information/doi-registration/.

Table 3: Expanded da|ra Properties

The third column, occurrence (occ), indicates cardinality/quantity constraints for the properties as follows:

0-n = optional and repeatable
0-1 = optional, but not repeatable
1-n = required and repeatable
1 = required, but not repeatable

The green highlighted fields are mandatory elements and necessary for registration. All elements with an occurence of 1 ... n or 1 are only mandatory if the parent element / container element is filled.

For example, even though 'resourceTypeFree' has the occurrence of 1…n, it must only be provided once (1) or more than once (n), if you choose to give information about a resource Type in a freetext field, otherwise it is optional.

= required = recommended

sequence	da|ra property	occ	definition	usage notes
1	resourceType	1	Predefined terms to provide information about the type of resource being registered to differentiate between registered resources.	A classification of resources that share the same characteristics or attributes, e.g. Dataset, Text, Audiovisual, etc. It is used to categorize the nature or genre of the content of the resource. da|ra controlled list (see appendix 4.1.1 for definitions).
2	resourceTypesFree	0-1	Container element to provide language-dependent information about the types of resources being registered.	Recommended for use.
2.1	resourceTypeFree	1-n	Container element for one specific language-dependent name of the resource type.	Information may be provided in several languages.

sequence	da|ra property	occ	definition	usage notes
2.1.1	language[2]	1	The language of the metadata information. It applies to the according piece of information where it is specified.	The value is a language code for the natural language and must conform to the ISO Code 639-1.
2.1.2	typeName	1	A free-text field to describe the type of resource more in detail in addition to the selected code of the general resource type.	Complementary term related to the resourceType (GeneralType (controlled)) can be added in the free text field 'General Type (free)' so that a pair can be formed, e.g., Dataset/cumulative data set; Text/article; Audiovisual/moving image. Examples: administrative records data, experimental data, survey data
3	resourceIdentifier	0-1	Container element for a resource identifier, which includes a unique identifier and a version number to identify the resource.	
3.1	identifier	1	The identifier is a unique internal value for the registered resource provided by the publication agent to disambiguate between resources.	Examples: ICPSR13589; zew_MIP_2013; ZA5338
3.2	currentVersion	0-1	A version number, which is a unique sequence of numbers, can be provided for the registered resource as a reference that changes have been made between versions.	The usual scheme is using one digit followed by a decimal and a number of decimal places. Example: 3.1.0

[2] Definition and usage notes will always be the same for each language-dependent metadata-information with the result that the definition and usage notes for language-dependent metadata will not be repeated in this table for reasons of clarity.

sequence	da|ra property	occ	definition	usage notes
4	titles	1	Container element to provide language-dependent information about the main titles of the registered resource.	
4.1	title	1-n	Container element for one specific language-dependent title.	Information can be provided in several languages.
4.1.1	language	1	See sequence number 2.1.1	
4.1.2	titleName	1	A name or title of the registered resource. The title is a distinguishing name or a descriptive or general heading of the registered resource.	Example: Eurobarometer 83.4 (2015)
5	otherTitles	0-1	Container element to provide language-dependent information about titles other than the main title for the registered resource.	
5.1	otherTitle	1-n	Container element for a language-dependent title other than the main title.	Information may be provided in several languages.
5.1.1	language	1	See sequence number 2.1.1	
5.1.2	titleName	1	An additional or another title or name of the registered resource.	e.g. an alternative title, a translated title, a secondary title or a former title of the main title. Examples: Climate change, Biodiversity and Discrimination of Minority Groups (Subtitle) German Longitudinal Election Study (Alternative Title)
5.1.3	titleType	1	Predefined terms to provide information about different types of additional titles or names of the registered resource to differentiate between different title types.	da|ra controlled list (see appendix 4.1.2 for definitions).

sequence	da|ra property	occ	definition	usage notes
6	collectiveTitles	0-1	Container element to provide language-dependent information about collective titles of the registered resource.	strongly recommended for the “General Type” “Text”
6.1	collectiveTitle	1-n	Container element for one specific language-dependent collective title.	Information may be provided in several languages.
6.1.1	language	1	See sequence number 2.1.1	
6.1.2	titleName	1	A title of a book series, working paper series or similar.	Example: Erdélyi Társadalom - Social Science Journal
6.1.3	numbering	0-1	A number to refer to the order of the volume, journals or number of pages.	Example: Vol 3, No 1 (2014)
7	creators	1	Container element to provide information about a person, e.g. researchers involved in producing the registered resource or an institution responsible for the substantive and/or intellectual content of the registered resource.	
7.1	creator	1-n	Container element to provide information about a person, an affiliation or an institution.	A selection must be made: either a person or an institution must be specified. (As a result there is no real element sequence of both within the container.)
7.1.1	person	1	Container element to provide information about a person.	
7.1.1.1	firstName	1	The first name of a person.	
7.1.1.2	middleName	0-1	The middle name of a person.	
7.1.1.3	lastName	1	The last name of a person.	

sequence	da|ra property	occ	definition	usage notes
7.1.1.4	personIDs	0-1	Container element to provide information about a unique identifier of the person and the name of the schema identifier to disambiguate individuals of similar names.	Recommended for use.
7.1.1.4.1	personID	1-n	Container element to provide information about a person's unique identifier.	Several personIDs may be provided.
7.1.1.4.1.1	identifierURI	1	The value of a formally registered unique identifier.	To be consistent always the complete valid URI may be submitted, regardless of the used system. Example: https://orcid.org/0000-0001-5430-8201 (ORCID for B. Hausstein) http://d-nb.info/gnd/128564059 (GND for Henning Schluß)
7.1.1.4.1.2	identifierSchema	1	The name of the schema the identifier is related to.	If identifierURI is used, identifierSchema is mandatory. Examples: ORCID[3], VIAF[4], GND[5], etc.
7.1.1.5	affiliation	0-1	Container element to provide information about the organizational or institutional connection of a person. The affiliation should reflect the person´s current and/or primary employment.	
7.1.1.5.1	affiliationName	1	The name of the organization or institution a person is affiliated to.	

[3] https://orcid.org/
[4] https://viaf.org/
[5] http://www.dnb.de/EN/Standardisierung/GND/gnd_node.html

sequence	da|ra property	occ	definition	usage notes
7.1.1.5.2	affiliationIDs	0-1	Container element to provide information about a unique identifier of the organization or institution a person is affiliated to in order to disambiguate affiliations of similar names.	
7.1.1.5.2.1	affiliationID	1-n	Container element for an individual unique identifier and the related identifier schema of the affiliation.	
7.1.1.5.2.1.1	identifierURI	1	The value of a formally registered unique identifier.	To be consistent always the complete valid URI may be submitted, regardless of the used system. Example: Deutsche Forschungsgemeinschaft/ German Research Foundation http://www.viaf.org/viaf/122652571 (VIAF) http://www.isni.org/isni/0000000120969829 (ISNI) http://d-nb.info/gnd/2007744-0 (GND)
7.1.1.5.2.1.2	identifierSchema	1	The name of the schema the identifier is related to.	If identifierURI is used, identifierSchema is mandatory. Examples: VIAF[6], GND[7], etc.
7.1.2	institution	1	Container element to provide information about an organization or institution involved in producing the registered resource.	
7.1.2.1	institutionName	1	A name of the organization or institution involved in producing the data or responsible for the registered resource.	

[6] https://viaf.org/
[7] http://www.dnb.de/EN/Standardisierung/GND/gnd_node.html

sequence	da|ra property	occ	definition	usage notes
7.1.2.2	institutionIDs	0-1	Container element to provide information about a unique identifier of the organization or institution and the name of the schema identifier to disambiguate institutions or organizations.	
7.1.2.2.1	institutionID	1-n	Container element to provide information about an institution's unique identifier.	Several institutionIDs may be provided.
7.1.2.2.1.1	identifierURI	1	The value of a formally registered unique identifier.	To be consistent always the complete valid URI may be submitted, regardless of the used system. Examples: http://www.viaf.org/viaf/245891861 (VIAF for School of Social and Political Sciences, University of Glasgow)
7.1.2.2.1.2	identifierSchema	1	The name of the schema the identifier is related to.	If identifierURI is used, identifierSchema is mandatory. Examples: VIAF[8], GND[9], etc.
8	dataURLs	1	Container element to provide information about the URL or URN (a reference to a web resource that specifies its location) linking to the registered resource.	
8.1	dataURL	1-n	An URL or URN (a reference to a web resource that specifies its location) linking to the registered resource.	Several dataURLs may be provided.

[8] https://viaf.org/
[9] http://www.dnb.de/EN/Standardisierung/GND/gnd_node.html

sequence	da|ra property	occ	definition	usage notes
9	doiProposal	0-1	A persistent interoperable identifier (=DOI) a publication agent suggests for identification purposes of the registered resource.	Valid DOI Syntax according the standard, see doi.org
10	publicationDate	1	Container element to provide information about the date the registered resource was published or is going to be published.	
10.1	date || monthyear || year	1	The publication day, month and/or year of the registered resource submitted by the publication agent.	You may provide a complete calendar date, month and year or year only: YYYY-MM-DD or YYYY-MM or YYYY
11	publicationPlace	0-1	The geographic location, where the resource is/was published, produced and/or distributed.	Publication Place is not language-dependent. We recommend the language of the country, in which the resource is published (according to bibliographical standards). Example: Ljubljana
12	publisher	0-1	Container element to provide information about a person, an affiliation and/or an institution responsible for the publication of the registered resource.	A selection must be made: either a person or an institution must be specified. (As a result there is no real element sequence of both within the container.) This property will be used to formulate the citation, so consider the prominence of the role. If no publisher is provided, da|ra uses information about the publication agent, among other things, to map the required metadata to DataCite.
12.1	person	1	Container element to provide information about a person.	
12.1.1	firstName	1	The first name of a person.	

sequence	da|ra property	occ	definition	usage notes
12.1.2	middleName	0-1	The middle name of a person.	
12.1.3	lastName	1	The last name of a person.	
12.1.4	personIDs	0-1	Container element to provide information about a unique identifier of the person and the name of the schema identifier to disambiguate individuals of similar names.	Recommended for use.
12.1.4.1	personID	1-n	Container element to provide information about a person's unique identifier.	Several personIDs may be provided.
12.1.4.1.1	identifierURI	1	The value of a formally registered unique identifier.	To be consistent always the complete valid URI may be submitted, regardless of the used system. Example: http://orcid.org/0000-0001-5430-8201 (ORCID for B. Hausstein)
12.1.4.1.2	identifierSchema	1	The name of the schema the identifier is related to.	If identifierURI is used, identifierSchema is mandatory. Examples: ORCID[10], VIAF[11], etc.
12.1.5	affiliation	0-1	Container element to provide information about the organizational or institutional connection of a person. The affiliation should reflect the person´s current and/or primary employment.	
12.1.5.1	affiliationName	1	The name of the organization or institution a person is affiliated to.	

[10] https://orcid.org/
[11] https://viaf.org/

sequence	da|ra property	occ	definition	usage notes
12.1.5.2	affiliationIDs	0-1	Container element to provide information about a unique identifier of the organization or institution a person is affiliated to in order to disambiguate affiliations of similar names.	
12.1.5.2.1	affiliationID	1-n	Container element for an individual unique identifier and the related identifier schema of the affiliation.	Several affiliationIDs may be provided.
12.1.5.2.1.1	identifierURI	1	The value of a formally registered unique identifier.	To be consistent always the complete valid URI may be submitted, regardless of the used system.
12.1.5.2.1.2	identifierSchema	1	The name of the schema the identifier is related to.	
12.2	institution	1	Container element to provide information about an organization or institution involved in publishing the registered resource.	
12.2.1	institutionName	1	A name of the organization or institution involved in publishing the registered resource.	
12.2.2	institutionIDs	0-1	Container element to provide information about a unique identifier of the organization or institution and the name of the schema identifier to disambiguate institutions or organizations.	
12.2.2.1	institutionID	1-n	Container element to provide information about an institution’s unique identifier.	Several institutionIDs may be provided.
12.2.2.1.1	identifierURI	1	The value of a formally registered unique identifier.	To be consistent always the complete valid URI may be submitted, regardless of the used system.

sequence	da|ra property	occ	definition	usage notes
12.2.2.1.2	identifierSchema	1	The name of the schema the identifier is related to.	If identifier is used, identifierSchema is mandatory. Examples: VIAF[12], GND[13], etc.
13	availability	1	Container element to classify or describe availability conditions of the registered resource.	
13.1	availabilityType	1	Predefined terms to provide information about different types of availability conditions of the registered resource.	The following values may be used: download, delivery, onsite, not available and unknown. da|ra controlled list (see appendix 4.1.3 for definitions).
13.2	availabilityFree	0-n	Container element for one specific language-dependent availability specification of the registered resource.	
13.2.1	language	1	See sequence number 2.1.1	
13.2.2	freetext	1	A free-text field to describe the availability specifications of the registered resource.	Example: Data and documents are released for academic research and teaching
13.3	embargoDate	0-1	Information about the end date of access restrictions in case an embargo period has been in effect.	Allowed value is a valid date expressed in the format YYYY-MM-DD
14	rights	0-1	Container element to provide information about legal principles or fundamental normative rules about what is allowed of people or owed to people in regards to the registered resource.	

[12] https://viaf.org/
[13] http://www.dnb.de/EN/Standardisierung/GND/gnd_node.html

sequence	da|ra property	occ	definition	usage notes
14.1	licenseType	0-1	Predefined terms to provide information about different types of creative commons licenses to allow creators to maintain copyrights on their works and clarify what others can do with content licensed with one of those licenses.	da|ra controlled list (see appendix 4.1.13 for definitions). Example: CC0 1.0
14.2	right	0-n	Container element for one specific language-dependent legal text about the registered resource.	Information may be provided in several languages.
14.2.1	language	1	See sequence number 2.1.1	
14.2.2	freetext	1	A free-text field to describe if and how others might use or download the registered resource.	Example: Creative Commons License - Attribution-NonCommercial-NoDerivs 3.0 Germany (CC BY-NC-ND 3.0 DE
15	resourceLanguage	0-1	A primary language of the registered resource itself, using ISO 3-letter codes (639-3) as the enumerated possible values.	Examples: eng; ger; slv; zho This is not the language in which the metadata elements are expressed.
16	alternativeIDs	0-1	Container element to provide information about identifiers other than the primary identifier applied to the resource being registered.	
16.1	alternativeID	1-n	Container element of a specific identifier other than the primary identifier applied to the resource being registered.	

sequence	da|ra property	occ	definition	usage notes
16.1.1	identifier	1	The identifier is a unique internal value other than the primary identifier of the registered resource. This may be an identifier from the information system of the publication agent as well as from other information systems.	Examples: ZA5686 (Type: ZA-No.) 10.3886/ICPSR35251.v1 (Type: DOI)
16.1.2	type	1	A free-text field to describe the name of the schema used to differentiate between different ID types that identify the alternative unique identifier of the registered resource.	
17	classifications	0-1	Container element to provide information about a multidisciplinary or discipline-specific system for hierarchically classifications. At the same time, classifications branch out into the special knowledge areas out of a few main compartments.	
17.1	classification	1-n	Container element for internal and external classifications.	
17.1.1	classificationInternal	0-1	Container element for the internal classification system provided by da|ra (Classifications: Journal of Economic Literature (JEL), ZA, GESIS).	
17.1.1.1	schema	1	The name of the internal schema used to differentiate between classification systems describing the topical coverage of the registered resource.	Examples: GESIS Classification Social Sciences ZA Classification (GESIS Data Catalogue) JEL (Journal of Economic Literature) Classification

sequence	da|ra property	occ	definition	usage notes
17.1.1.2	identifiers	1	Container element to provide information about the unique identifier of the internal schema.	
17.1.1.2.1	identifier	1-n	The identifier is a unique internal value of the internal schema to disambiguate classification systems.	Examples: 10900 (Economic Theory GESIS Classification Social Sciences) KAT31 (Economic Policy, National Economic Situation ZA Classification) E32 (Business Fluctuations; Cycles JEL Classification)
17.1.2	classificationExternal	0-1	Container element to provide language-dependent information about a classification system provided by the publication agent.	
17.1.2.1	language	1	See sequence number 2.1.1	
17.1.2.2	classificationSchema	1	The name of the external schema used to differentiate between classification systems a publication agent provides to describe the topical coverage.	Examples: American Psychological Association (APA) Classification Library of Congress Subject Headings (LCSH)
17.1.2.3	terms	1	Container element to provide information about the subject class.	
17.1.2.3.1	term	1-n	The subject class from the external classification system a publication agent uses to describe the topical coverage.	Examples: Personality Scales & Inventories World War, 1914-1918--France
18	controlledKeywords	0-1	Container element to provide information about a classification of the terminology to classify or index the registered resource.	

sequence	da|ra property	occ	definition	usage notes
18.1	controlledKeyword	1-n	Container element for controlled keywords.	
18.1.1	keywordSchemaType	1	The name of the internal schema used to differentiate between keywords to describe the topical coverage.	Examples: TheSozWiss (Thesaurus for the Social Sciences) STW (Thesaurus for the Social Sciences)
18.1.2	identifiers	1	Container element to provide information on a unique identifier of the internal schema.	
18.1.2.1	identifier	1-n	The identifier is a unique value of the internal schema to disambiguate keywords.	Examples: 10038715 (TheSozWiss term: employment figure) 13210-3 (STW term: Trade)
19	freeKeywords	0-1	Container element to provide language-dependent information about the content of the registered resource if the controlled list of classifications cannot provide enough information.	
19.1	freeKeyword	1-n	Container element for one specific language-dependent free keyword of the external schema used to differentiate between keywords to describe the topical coverage.	
19.1.1	language	1	See sequence number 2.1.1	
19.1.2	keywordSchema	0-1	The name of the schema related to the free keyword.	
19.1.3	keywords	1	Container element for the keywords.	
19.1.3.1	keyword	1-n	A textual description or terminology to describe the content of the registered resource.	

sequence	da|ra property	occ	definition	usage notes
20	descriptions	0-1	Container element to provide language-dependent information, statements or passages that give additional details about someone or something.	
20.1	description	1-n	Container element for language-dependent descriptions.	Information may be provided in several languages.
20.1.1	language	1	See sequence number 2.1.1	
20.1.2	freetext	1	All additional information about the registered resource that does not fit in any of the other categories. May be used for technical information.	
20.1.3	descriptionType	1	Predefined terms to provide information about different types of descriptions used to describe the registered resource.	Required, if 20.1.2 used. da|ra controlled list (see appendix 4.1.4 for definitions).
21	geographicCoverages	0-1	Container element to provide geographical information of the data collection including a controlled vocabulary, a language-attribute, a free-text-field, a location point, a location box and a location polygon.	
21.1	geographicCoverage	1-n	Container element to provide information about the geographic coverage of the registered resource.	
21.1.1	geographic-CoverageControlled	0-1	Predefined terms to provide geographical information to differentiate between different locations the survey was conducted.	Example: TZ Tanzania
21.1.2	geographicCoverageFree	0-1	Container element to provide language-dependent information about the geographic coverage.	

sequence	da|ra property	occ	definition	usage notes
21.1.2.1	geographicCoverage-Free	1-n	Container element for a language-dependent freet-ext field to provide geo-graphical information.	Information may be provid-ed in several languages.
21.1.2.1.1	language	1	See sequence number 2.1.1	
21.1.2.1.2	freetext	1	An additional free-text field to describe the locations or spatial regions covered by the data collection in case it cannot be found in the controlled vocabulary list.	Example: Pwani region, Tanzania (7 districts)
21.1.3	geoLocationPoint	0-1	Container element of a geographic point defined by a latitude and longitude in degrees, representing a geographic area in which the survey was conducted.	
21.1.3.1	pointLongitude	1	A geographic point defined by longitude in degrees.	Longitude of the geograph-ic point expressed in deci-mal degrees (positive east). Example: -67.302 Domain: -180 ≤ pointLongitude ≤ 180
21.1.3.2	pointLatitude	1	A geographic point defined by latitude in degrees.	Latitude of the geographic point expressed in decimal degrees (positive north). Example: 31.233 Domain: -90 ≤ pointLatitude ≤ 90
21.1.4	geoLocationBox	0-1	Container element of a geoLocationBox with an east longitude value (xmax), a west longitude value (xmin), a north lati-tude value (ymax) and a south latitude value (ymin) expressed as a decimal between the values of -180 and 180 degrees.	

sequence	da|ra property	occ	definition	usage notes
21.1.4.1	westBoundLongitude	1	A spatial limit specified with a west longitude value (xmin) and expressed as a decimal between the values of -180 and 180 degrees.	Longitude of the geographic point expressed in decimal degrees (positive east). Domain: -180.00 ≤ westBoundLongitude ≤ 180.00
21.1.4.2	eastBoundLongitude	1	A spatial limit specified with an east longitude value (xmax) and expressed as a decimal between the values of -180 and 180 degrees.	Longitude of the geographic point expressed in decimal degrees (positive east). Domain: -180.00 ≤ eastBoundLongitude ≤ 180.00
21.1.4.3	southBoundLatitude	1	A spatial limit specified with a south latitude value (ymin) and expressed as a decimal between the values of -180 and 180 degrees.	Latitude of the geographic point expressed in decimal degrees (positive north). Domain: -90.00 ≤ southBound Latitude ≤ 90.00
21.1.4.4	northBoundLatitude	1	A spatial limit specified with a north latitude value (ymax) and expressed as a decimal between the values of -180 and 180 degrees.	Latitude of the geographic point expressed in decimal degrees (positive north). Domain: -90.00 ≤ northBoundLatitude ≤ 90.00
21.1.5	geoLocationPolygon	0-1	Container element to provide information about a drawn polygon area, defined by a set of points and lines connecting the points in a closed chain.	
21.1.5.1	polygonPoint	4-n	Container element to provide information about a drawn polygon area, defined by a set of points and lines connecting the points in a closed chain.	
21.1.5.1.1	pointLongitude	1	The longitudinal point of a polygon.	Longitude of the geographic point expressed in decimal degrees (positive east). Domain: -180 ≤ pointLongitude ≤ 180

sequence	da|ra property	occ	definition	usage notes
21.1.5.1.2	pointLatitude	1	The latitudinal point of a polygon.	Latitude of the geographic point expressed in decimal degrees (positive north). Domain: -90 ≤ pointLatitude ≤ 90
22	universes	0-1	Container element to provide language-dependent information about statistical entities about which inferences are to be drawn and to which analytic results refer.	For example, a population could consist of all the persons in the country, or those in a particular geographical location, or a special ethnic group, depending on the purpose and coverage of the study.
22.1	universe	1-n	Container element for one specific language-dependent description about the universe to which analytic results refer.	
22.1.1	language	1	See sequence number 2.1.1	
22.1.2	sampled	1	Description of the statistical entities of the survey.	Free text. Example: The population comprises all German citizens who were at least 18 years old and participated at the Online-Access-Panel by Respondi AG. This panel comprised in 2009 nearly 65000 active members. Recruitment primary works online but also by phone.
23	samplings	0-1	Container element to provide language-dependent information about the sample and sample design used to select the survey respondents to represent the population.	
23.1	sampling	1-n	Container element for one specific language-dependent sampling method.	

sequence	da|ra property	occ	definition	usage notes
23.1.1	language	1	See sequence number 2.1.1	
23.1.2	method	1	The type of sample and sample design used to select the respondents to represent the population.	Free text. Example: Sampling of respondents was based on a primarily defined ratio schedule (sex, age, education).
24	temporalCoverages	0-1	Container element to provide information about the time frame of the data collection.	
24.1	temporalCoverage	1-n	Container element to provide structured or unstructured information about the time frame of the data collection.	
24.1.1	temporalCoverage-Formal	0-1	Container element to provide information about the structured temporal time frame of the data collection.	
24.1.1.1	startDate	1	Container element that provides information about the start date of the data collection.	
24.1.1.1.1	date || monthyear || year	1	The date a survey started.	A complete calendar date or month and year or year may be used with the structure: YYYY-MM-DD or YYYY-MM or YYYY. Examples based on 24.1.1: 1990-01 1981-03-01
24.1.1.2	endDate	0-1	Container element that provides information about the end date of the survey.	

sequence	da|ra property	occ	definition	usage notes
24.1.1.2.1	date || monthyear || year	1	The date a survey ended.	A complete calendar date or month and year or year may be used with the structure: YYYY-MM-DD or YYYY-MM or YYYY. Examples based on 24.1.1: 2014-12 1981-05-31
24.1.2	temporalCoverages-Free	0-1	Container element to provide language-dependent information about the temporal coverage.	
24.1.2.1	temporalCoverage-Free	1-n	Container element for language-dependent information about the temporal coverage.	Information may be provided in several languages.
24.1.2.1.1	language	1	See sequence number 2.1.1	
24.1.2.1.2	freetext	1	Provides the possibility to indicate the temporal coverage, if the calendar mode cannot be applied or as a supplement to 24.1.1	Example based on 24.1.1: Belgium (1st wave)
25	timeDimensions	0-1	Container element to classify or describe surveys according to the time of data collection.	
25.1	timeDimension	1-n	Container element to provide information about time-specific information of the survey.	
25.1.1	timeDimensionType	0-1	Predefined terms to provide time-specific information of the survey to differentiate between time dimensions.	da|ra controlled list (see appendix 4.1.5 for definitions). Examples: Longitudinal.Panel
25.1.2	timeDimensionsFree	0-1	Container element to provide additional language-dependent information about the time dimension of the survey.	

sequence	da|ra property	occ	definition	usage notes
25.1.2.1	timeDimensionFree	1-n	Container element for language-dependent information about the time dimension of the survey.	Examples: Time series with different monitoring start dates, part of which since 1952.
25.1.2.1.1	language	1	See sequence number 2.1.1	
25.1.2.1.2	freetext	1	An additional free-text field to describe the time dimensions of the survey.	Example: Longitudinal: Trend/Repeated cross section, The 2001-02 R&D Survey data is the start of a time series by CeSTII. After 2004-05, the survey has been conducted annually. Panel analysis is theoretically possible if data from several survey years is used.
25.1.3	frequencies	0-1	Container element to provide language-dependent information about the frequency a survey was conducted.	
25.1.3.1	frequency	1-n	Container element for specific language-dependent information about the frequency a survey was conducted.	
25.1.3.1.1	language	1	See sequence number 2.1.1	
25.1.3.1.2	freetext	1	The regular time intervals at which data is collected, for example monthly, yearly, weekly, etc.	Example: Frequency: yearly
26	contributors	0-1	Container element to provide information about a person or an institution responsible for collecting, managing, distributing, or otherwise contributing to the development of the registered resource.	

sequence	da|ra property	occ	definition	usage notes
26.1	contributor	1-n	Container element to provide information about a person or an institution contributing to the registered resource.	A selection must be made: either a person or an institution must be specified. (As a result there is no real element sequence of both within the container.)
26.1.1	person	1	Container element to provide information about a person responsible for collecting, managing, distributing, or otherwise contributing to the development of the registered resource.	
26.1.1.1	firstName	1	The first name of the person.	
26.1.1.2	middleName	0-1	The middle name of the person.	
26.1.1.3	lastName	1	The last name of the person.	
26.1.1.4	contributorType	1	Predefined terms to provide information about different types of roles persons hold to contribute to the registered resource.	da|ra controlled list (see appendix 4.1.6 for definitions).
26.1.1.5	personIDs	0-1	Container element to provide information about a unique identifier of the person and the name of the schema identifier to disambiguate individuals of similar names.	Recommended for use.
26.1.1.5.1	personID	1-n	Container element to provide information about a person’s unique identifier.	Several personIDs may be provided.

sequence	da|ra property	occ	definition	usage notes
26.1.1.5.1.1	identifierURI	1	The value of a formally registered unique identifier.	To be consistent always the complete valid URI may be submitted, regardless of the used system. Example: http://orcid.org/0000-0001-5430-8201 (ORCID for B. Hausstein)
26.1.1.5.1.2	identifierSchema	1	The name of the schema the identifier is related to.	If identifier is used, identifierSchema is mandatory. Examples: ORCID[14], VIAF[15], etc.
26.1.1.6	affiliation	0-1	Container element to provide information about the organizational or institutional connection of a person. The affiliation should reflect the person´s current and/or primary employment.	
26.1.1.6.1	affiliationName	1	The name of the organization or institution a contributor is affiliated to.	
26.1.1.6.2	affiliationIDs	0-1	Container element to provide information about a unique identifier of the organization or institution a person is affiliated to in order to disambiguate affiliations of similar names.	
26.1.1.6.2.1	affiliationID	1-n	Container element for an individual unique identifier and the related identifier schema of the affiliation.	Several affiliationIDs may be provided.

[14] https://orcid.org/
[15] https://viaf.org/

sequence	da|ra property	occ	definition	usage notes
26.1.1.6.2.1.1	identifierURI	1	The value of a formally registered unique identifier.	To be consistent always the complete valid URI may be submitted, regardless of the used system. Example: http://d-nb.info/gnd/2120785-9 (GND for Centre for European Economic Research (ZEW))
26.1.1.6.2.1.2	identifierSchema	1	The name of the schema the identifier is related to.	If identifierURI is used, identifierSchema is mandatory. Examples: VIAF, etc.
26.1.2	institution	1	Container element to provide information about an organization or institution involved in producing the registered resource.	
26.1.2.1	institutionName	1	A name of the organization or institution involved in producing the data or responsible for the registered resource.	Examples: Department of Science and Technology (Rights Holder) Bamberg Center for Empirical Studies (BACES) (Data Collector)
26.1.2.2	contributorType	1	Predefined terms to provide information about different types of roles institutions hold to contribute to the registered resource.	da|ra controlled list (see appendix 4.1.6 for definitions).
26.1.2.3	institutionIDs	0-1	Container element to provide information about a unique identifier of the organization or institution and the name of the schema identifier to disambiguate institutions or organizations.	
26.1.2.3.1	institutionID	1-n	Container element to provide information about an institution's unique identifier.	Several institutionIDs may be provided.

sequence	da|ra property	occ	definition	usage notes
26.1.2.3.1.1	identifierURI	1	The value of a formally registered unique identifier.	To be consistent always the complete valid URI may be submitted, regardless of the used system.
26.1.2.3.1.2	identifierSchema	1	The name of the schema the identifier is related to.	
27	fundingReferences	0-1	Container element to provide information about a person or institution that provides financial support (funding) for the resource being registered.	
27.1	fundingReference	1-n	Container element to provide information about financial support (funding) for the resource being registered.	A selection must be made: either a person or an institution must be specified. (As a result there is no real element sequence of both within the container.)
27.1.1	person	1	Container element to provide information about a person (funding provider).	
27.1.1.1	firstName	1	The first name of the person.	
27.1.1.2	middleName	0-1	The middle name of the person.	
27.1.1.3	lastName	1	The last name of the person.	
27.1.1.4	personIDs	0-1	Container element to provide information about a unique identifier of the person and the name of the schema identifier to disambiguate individuals of similar names.	
27.1.1.4.1	personID	1-n	Container element to provide information about a person’s unique identifier.	Several personIDs may be provided.

sequence	da|ra property	occ	definition	usage notes
27.1.1.4.1.1	identifierURI	1	The value of a formally registered unique identifier presented as a complete URI	To be consistent always the complete valid URI may be submitted, regardless of the used system. Example: http://orcid.org/0000-0001-5430-8201 (ORCID for B. Hausstein)
27.1.1.4.1.2	identifierSchemaType	1	The name of the schema the identifier is related to.	If identifier is used, identifierSchema is mandatory. da|ra controlled list (see appendix 4.1.12 for definitions).
27.1.1.5	affiliation	0-1	Container element to provide information about the organizational or institutional connection of a person. The affiliation should reflect the person´s current and/or primary employment.	
27.1.1.5.1	affiliationName	1	The name of the organization or institution a person is affiliated to.	
27.1.1.5.2	affiliationIDs	0-1	Container element to provide information about a unique identifier of the organization or institution a person is affiliated to in order to disambiguate affiliations of similar names.	
27.1.1.5.2.1	affiliationID	1-n	Container element for an individual unique identifier and the related identifier schema of the affiliation.	Several affiliationIDs may be provided.
27.1.1.5.2.1.1	identifierURI	1	The value of a formally registered unique identifier.	To be consistent always the complete valid URI may be submitted, regardless of the used system.

sequence	da|ra property	occ	definition	usage notes
27.1.1.5.2.1.2	identifierSchemaType	1	The name of the schema the identifier is related to.	If identifierURI is used, identifierSchema is mandatory. Examples: VIAF[16], GND[17], etc. da|ra controlled list (see appendix 4.1.12 for definitions).
27.1.1.6	award	0-1	Container element to provide information about the award.	
27.1.1.6.1	awardNumber	0-1	The identification code of the grant or sponsored award assigned by a funder.	
27.1.1.6.2	awardURI	0-1	The URI is leading to a page provided by the funder for more information about the award.	
27.1.1.6.3	awardTitle	0-1	Container element to provide one specific language-dependent name or title of the award.	
27.1.1.6.3.1	language	1	See sequence number 2.1.1	
27.1.1.6.3.2	title	1	The human readable title of the award.	
27.1.2	institution	1	Container element to provide information about an organization or institution involved in funding the registered resource.	
27.1.2.1	institutionName	1	A name of the organization or institution involved in funding the registered resource.	

[16] https://viaf.org/
[17] http://www.dnb.de/EN/Standardisierung/GND/gnd_node.html

sequence	da|ra property	occ	definition	usage notes
27.1.2.2	institutionIDs	0-1	Container element to provide information about a unique identifier of the organization or institution and the name of the schema identifier to disambiguate institutions or organizations.	
27.1.2.2.1	institutionID	1-n	Container element to provide information about an institution's unique identifier.	Several institutionIDs may be provided.
27.1.2.2.1.1	identifierURI	1	The value of a formally registered unique identifier.	To be consistent always the complete valid URI may be submitted, regardless of the used system. Example: https://doi.org/10.13039/501100006211 (Crossref Funder ID for HUB)
27.1.2.2.1.2	identifierSchemaType	1	The name of the schema the identifier is related to.	If identifier is used, identifierSchema is mandatory. da|ra controlled list (see appendix 4.1.12 for definitions).
27.1.2.3	award	0-1	Container element to provide information about the award.	
27.1.2.3.1	awardNumber	0-1	The identification code of the grant or sponsored award assigned by a funder.	
27.1.2.3.2	awardURI	0-1	The URI is leading to a page provided by the funder for more information about the award.	
27.1.2.3.3	awardTitle	0-1	Container element to provide one specific language-dependent name or title of the award.	
27.1.2.3.3.1	language	1	See sequence number 2.1.1	

sequence	da|ra property	occ	definition	usage notes
27.1.2.3.3.2	title	1	The human readable title of the award.	
28	collectionModes	0-1	Container element to provide information about the mode of data collection used to collect information from a sample in a survey.	
28.1	collectionMode	1-n	Container element to provide structured or unstructured information about the mode of data collection used to collect information from a sample in a survey.	
28.1.1	collectionModeType	0-1	Predefined terms to provide information about different types of methods that are used to collect information from a sample in a survey.	i.e., paper questionnaire, observation, computer assisted interview, etc. da|ra controlled list (see appendix 4.1.7 for definitions).
28.1.2	collectionModesFree	0-1	Container element to provide language-dependent information in order to classify or describe methods that are used to collect information from a sample in a survey.	
28.1.2.1	collectionModeFree	1-n	Container element for language-dependent descriptions about the mode of data collection.	
28.1.2.1.1	language	1	See sequence number 2.1.1	
28.1.2.1.2	freetext	1	An additional free-text field to describe the methods that are used to collect information from a sample in a survey.	Examples: self-completed questionnaire achievement test, documentation

sequence	da|ra property	occ	definition	usage notes
29	dataSets	0-1	Container element to provide information about the data set, which is a collection of data, where every column of the statistical data matrix represents a particular variable, and each row corresponds to a given member of the data set in question.	
29.1.	dataSet	1-n	Container element to provide information about a specific data set.	
29.1.2	unitType	0-1	Describes the entity being analyzed or observed in the resource.	da|ra controlled list (see appendix 4.1.8 for definitions).
29.1.3	numberUnits	0-1	The number of units being analyzed or observed in the resource.	unitType has a contextual relationship with numberUnits. When a unitType is beeing selected, it is mandatory to provide a number of units and vice versa. Finally it means that both together are mandatory; otherwise none of them should be used.
29.1.4	numberVariables	0-1	This metadata describes the number of variables within a registered dataset.	
29.1.5	dataTypes	0-1	Container element to provide language-dependent information about the types of data.	Type of Data: STATA, SPSS, SAS. CSV, TXT
29.1.5.1	dataType	1-n	Container element for language-dependent information about the data type being registered.	
29.1.5.1.1	language	1	See sequence number 2.1.1	
29.1.5.1.2	freetext	1	This metadata describes the kind of data that a publication agent registers.	

sequence	da|ra property	occ	definition	usage notes
29.1.6	files	0-1	Container element to provide specific information of the data file.	
29.1.6.1	file	1-n	Container element to provide specific information of the data file such as name, format, size, and fingerprint of the file.	
29.1.6.1.1	name	0-1	The name of the data file.	
29.1.6.1.2	format	0-1	A textual description of the technical format of the data file.	Use file extension or MIME type where possible. Examples: application/x-stata , application/pdf
29.1.6.1.3	size	0-1	The size of a data file or resource.	e.g. KB, MB, GB
29.1.6.1.4	fingerprint	0-1	Checksum which confirms the authenticity of the data or data file by assigning a hash value (digital fingerprint).	
29.1.6.1.5	fingerprintMethod	0-1	The technical procedure generating a data fingerprint.	Example: MD5, SHA1
30	notes	0-1	Container element to provide language-dependent remarks or other information about the registered resource.	
30.1	note	1-n	Container element for one specific language-dependent further remark about the registered resource.	
30.1.1	language	1	See sequence number 2.1.1	
30.1.2	text	1	Textual description of further information or remarks about the registered resource.	

sequence	da|ra property	occ	definition	usage notes
31	relations	0-1	Container element to provide information about resources that are related to the registered resource such as the type of the identifier, the relation or information about the schema (metadata, type, URI).	
31.1	relation	1-n	Container element to provide information about resources that are related to the registered resource.	
31.1.1	identifier	1	The value of a formally registered unique identifier of the related resource to disambiguate resources.	
31.1.2	identifierSchemaType	1	Predefined terms to provide information about different types of unique identifiers for the related resource.	da|ra controlled list (see appendix 4.1.12 for definitions).
31.1.3	relationType	1	Predefined terms to provide information about different types of relations between the resource being registered and a related resource, e.g. the registered resource is a new version of the related resource.	da|ra controlled list (see appendix 4.1.9 for definitions).
31.1.4	resourceType	0-1	Predefined terms to provide information about the general type of resources related to the resource beeing registered.	da|ra controlled list (see appendix 4.1.1 for definitions).
31.1.5	relatedMetadataSchema	0-1	The name of the metadata schema of the related resource, e.g. DDI-C. A schema is a list of core metadata properties chosen for an accurate and consistent identification of a resource.	Use only with this relation pair: HasMetadata/IsMetadataFor Example: DDI-C

sequence	da|ra property	occ	definition	usage notes
31.1.6	schemaType	0-1	Terms to provide information about different types of schemas used for the metadata of the related resource, e.g. XSD.	Use only with this relation pair: HasMetadata/IsMetadataFor Examples: XSD, DDT, Turtle
31.1.7	schemaURI	0-1	A metadata schema is identified by a Uniform Resource Identifier (URI). A URI is a compact sequence of characters that identifies an abstract or physical resource.	Use only with this relation pair: HasMetadata/IsMetadataFor
32	publications	0-1	Container element to provide information about an article, a document, etc. that has been made available to the public.	
32.1	publication	1-n	Container element to provide information about a structured or/and unstructured information about a publication.	
32.1.1	structuredPublication	1	Container element to provide structured information about an article, a document or another resource that has been made available to the public.	
32.1.1.1	documentType	0-1	The type of publication that has been made available to the public to differentiate between document types.	da|ra controlled list (see appendix 4.1.11 for definitions).
32.1.1.2	authorsEditors	1	Container element to provide information about a person, who wrote and originated (author) and/or edited and modified (editor) the publication.	
32.1.1.2.1	authorEditor	1-n	Container element to provide information about an author and/or an editor of a publication.	

sequence	da|ra property	occ	definition	usage notes
32.1.1.2.1.1	author	0-1	Container element to provide information about an author.	
32.1.1.2.1.1.1	firstName	1	The first name of the person.	
32.1.1.2.1.1.2	middleName	0-1	The middle name of the person.	
32.1.1.2.1.1.3	lastName	1	The last name of the person.	
32.1.1.2.1.2	editor	0-1	Container element to provide information about an editor.	
32.1.1.2.1.2.1	name	1	The full name of the editor.	
32.1.1.3	title	1	The title or name of the publication.	
32.1.1.4	year	0-1	The year on which the publication has been or is planned to be published.	
32.1.1.5	publisher	0-1	The name of the entity that holds, archives, publishes prints, distributes, releases, issues, or produces the resource.	
32.1.1.6	places	0-1	The place of publication is the name of the city where the publisher is located.	
32.1.1.7	journal	0-1	The name of an academic or scholarly periodical publication intended to further the progress of science, usually by reporting new research.	
32.1.1.8	volume	0-1	The volume number refers to the number of years a journal has been in publication.	
32.1.1.9	issue	0-1	The issue number refers to the number of individual publications during the year.	

sequence	da|ra property	occ	definition	usage notes
32.1.1.10	anthology	0-1	A book or other collection of selected writings by various authors, usually in the same literary form, of the same period, or on the same subject.	
32.1.1.11	pages	0-1	The number of pages within the publication.	
32.1.1.12	isbn	0-1	The International Standard Book Number (ISBN) is a unique numeric commercial book identifier. There are two formats: a 10-digit ISBN format and a 13-digit ISBN.	
32.1.1.13	ISSNs	0-1	Container element for the International Standard Serial Number (ISSN).	
32.1.1.13.1	ISSN	1-n	The International Standard Serial Number (ISSN) is a unique 8-digit code used to identify a print or electronic periodical publication.	
32.1.1.14	PIDs	0-1	Container element to provide information about the Persistent Identifier (PID) that has been generated to uniquely and permanently identify the structured publication.	It is used to be able to reference and retrieve data permanently. PIDs link data with the data producer or with research objects based on them.
32.1.1.14.1	PID	1-n	Container element for the value of a formally registered unique and persistent identifier of the structured information of publication.	
32.1.1.14.1.1	ID	1	The value of a formally registered unique and persistent identifier of the structured information of a publication.	

sequence	da|ra property	occ	definition	usage notes
32.1.1.14.1.2	pidType	1	Predefined terms to provide information about different types of Persistent Identifiers of the structured information of the publication to differentiate between identifier types.	da|ra controlled list (see appendix 4.1.10 for definitions).
32.1.2	unstructuredPublication	1	Container element to provide unstructured information about an article, a document or another resource that has been made available to the public.	
32.1.2.1	freetext	1	Unstructured bibliographic information related to the publication.	
32.1.2.2	PIDs	0-1	Container element to provide information about Persistent Identifiers (PIDs) that have been generated to uniquely and permanently identify unstructured publications.	It is used to be able to reference and retrieve data permanently. PIDs link data with the data producer or with research objects based on them.
32.1.2.2.1	PID	1-n	Container element for the value of a formally registered unique and persistent identifier of the unstructured information of publication.	
32.1.2.2.1.1	ID	1	The value of a formally registered unique and persistent identifier of the unstructured information of a publication.	
32.1.2.2.1.2	pidType	1	Predefined terms to provide information about different types of Persistent Identifiers of the unstructured information of the publication to differentiate between identifier types.	da|ra controlled list (see appendix 4.1.10 for definitions).

3 Examples, Services, Sources, Support

3.1 XML Examples

Examples of various resource types can be found at:
https://www.da-ra.de/en/technical-information/test-dara-40/

3.2 XSD

The XML Schema is available here:
https://www.da-ra.de/en/technical-information/test-dara-40/
Note that the schema and this documentation will always have the same version number.
Please also note that da|ra Metadata Schema Version 3.1 is no longer valid and can not be used for DOI registration via da|ra anymore.

3.3 Other da|ra Services

For information about other da|ra services that pertain to da|ra metadata records, including the Metadata Upload, the da|ra APIs, Metadata Search and OAI-PMH, please visit the da|ra homepage at https://www.da-ra.de.

4 Appendices

4.1 Appendix 1: da|ra Controlled Vocabulary Definitions

4.1.1 resourceType

da|ra 3.1	da|ra 4.0	
id	**resourceType**	**definition**[18]
1	Collection	An aggregation of resources, which may encompass collections of one resourceType as well as those of mixed types. A collection is described as a group; its parts may also be separately described.
2	Dataset	Data encoded in a defined structure.
3	Text	A resource consisting primarily of words for reading.
4	deprecated; use Audiovisual instead	
	Software	A computer program in source code (text) or compiled form.
5	Image	A visual representation other than text.
6	deprecated; use Audiovisual instead	
	Audiovisual	A series of visual representations imparting an impression of motion when shown in succession. May or may not include sound.
	InteractiveResource	A resource requiring interaction from the user to be understood, executed, or experienced.
	DataPaper	A factual and objective publication with a focused intent to identify and describe specific data, sets of data, or data collections to facilitate discoverability.
	Event	A non-persistent, time-based occurrence.
	Model	An abstract, conceptual, graphical, mathematical or visualization model that represents empirical objects, phenomena, or physical processes.
	PhysicalObject	An inanimate, three-dimensional object or substance.
	Service	A system that provides one or more functions of value to the end-user.
	Sound	A resource primarily intended to be heard.
	Workflow	A structured series of steps which can be executed to produce a final outcome, allowing users a means to specify and enact their work in a more reproducible manner.
	Other	If selected, supply a value for resourceTypeFree.

4.1.2 titleType

da|ra 3.1	da|ra 4.0	
id	**titleType**	**definition**[19]
1	AlternativeTitle	An alternative identifying name given to the resource.
2	TranslatedTitle	The translation of the title into another language.

[18] Source of the term and definition of the da|ra resourceType is the DataCite Metadata Schema Documentation, version 4.1, https://doi.org/10.5438/0014.

[19] Definitions originate from the Oxford English Dictionary http://www.oxforddictionaries.com/.

da|ra 3.1	da|ra 4.0	
id	**titleType**	**definition**[19]
3	Subtitle	A secondary, usually explanatory title of the resource.
4	OriginalTitle	A former title, if there was a change of the title.

4.1.3 availabilityType

da|ra 3.1	da|ra 4.0	
id	**availabilityType**	**definition**
1	Download	Released for everybody.
2	Delivery	Can be delivered.
3	On-site	Can be used on-site only.
4	Not available	Not available.
5	Unknown	No information is provided.

4.1.4 descriptionType

da|ra 3.1	da|ra 4.0	
id	**descriptionType**	**definition**[20]
1	Abstract	A brief description of the resource and the context in which the resource was created.
2	SeriesInformation	Information about a repeating series, such as volume, issue, number, pages.
3	TableOfContents	A listing of a table of contents.
4	Methods	The technology methodology employed for the study or research.
-	Weighting	A value assigned to each case in the data file to make statistics computed from the data more representative of the population.
-	TechnicalInfo	Technical information necessary for the compilation and implementation of software.
5	Other	Other description information that does not fit into an existing category.

4.1.5 timeDimensionType

da|ra 3.1	da|ra 4.0	
id	**timeDimensionType**	**definition**[21]
1	Longitudinal	Data collected repeatedly over time to allow studying change in a population. At least some of the questions or modules are repeated over waves. Use the broad term when none of the subterms is suitable.

[20] Source of the terms and definitions (except of the type “Weighting”) of the da|ra descriptionType is the DataCite Metadata Schema Documentation, version 4.1, https://doi.org/10.5438/0014.

[21] Source of the terms and definitions of the da|ra timeDimensionsType is DDI Controlled Vocabulary for Time Method, see: http://www.ddialliance.org/Specification/DDI-CV/TimeMethod_1.2.html.

da|ra 3.1	da|ra 4.0	
id	**timeDimensionType**	**definition**[21]
2	Longitudinal.CohortEventBased	Data collected over time from the same cohort of respondents. The individuals in the cohort are connected in some way or have shared some significant experience within a given period. In some cases, the samples may differ between waves but are drawn from the same cohort. Examples: birth year, disease (clinical trials), common problem (intervention studies), education, employment, family formation, participation in an event.
3	Longitudinal.TrendRepeatedCrossSection	Data collected from different samples or different groups of people from the same population at several points in time, using at least partly the same set of questions/variables. Conclusions are drawn for the population. Examples: European Social Survey (ESS), national longitudinal crime surveys.
4	Longitudinal.Panel	Data collected over time from, or about, the same sample of respondents. Differs from cohort/event-based data in that the selection of respondents is not based on their being connected in some way or having shared some significant experience.
5	Longitudinal.Panel.Continuous	Data collected from a panel of respondents on a regular basis.
6	Longitudinal.Panel.Interval	Data collected from a panel of respondents only when information is needed.
7	TimeSeries	Data collected repeatedly over time to study change in observations. These are typically "objective" measurements of phenomena that can be observed externally, as opposed to attitudes/opinions or feelings. Examples may include economic/financial indicators, natural/meteorological phenomena, vital statistics, etc.
8	TimeSeries.Continuous	Measurements are taken at every instant in time. Examples: lie detectors, electrocardiograms, etc.
9	TimeSeries.Discrete	Measurements are taken at (usually regularly) spaced intervals. Examples: macroeconomics (weekly share prices, monthly profits, sales); meteorology (hourly temperature); measurements of individuals (blood pressure, weight, height); sociology (crime figures, employment figures), etc.
10	CrossSection	Data collected by observing subjects within the study period, without regard to changes over time. May include more than one collection event. Analysis of cross-sectional data often consists in comparing the differences and similarities among subjects.
11	CrossSectionAdHocFollowUp	Data collected at one point in time to complete information collected in a previous cross-sectional study; the decision to collect follow-up data was not included in the original study design.
12	Other	Use if the time method is known, but not found in the list.

4.1.6 contributorType

da|ra 3.1	da|ra 4.0	
id	**contributorType**	**definition**[22]
1	ContactPerson	Person with knowledge of how to access, troubleshoot, or otherwise field issues related to the resource.
22	DataCurator	Person tasked with reviewing, enhancing, cleaning, or standardizing metadata and the associated data submitted for storage, use, and maintenance within a data center or repository.
2	DataCollector	Person/institution responsible for finding, gathering/collecting data under the guidelines of the author(s) or Principal Investigator (PI).
3	DataManager	Person (or organization with a staff of data managers, such as a data center) responsible for maintaining the finished resource.
4	Distributor	Institution tasked with responsibility to generate/disseminate copies of the resource in either electronic or print form.
5	Editor	A person who oversees the details related to the publication format of the resource.
6	deprecated; use element fundingReference instead (see table 3)	
7	HostingInstitution	Typically, the organization allowing the resource to be available on the Internet through the provision of its hardware/software/operating support.
8	Producer	Typically a person or organization responsible for the artistry and form of a media product.
9	ProjectLeader	Person officially designated as head of project team or sub-project team instrumental in the work necessary to development of the resource.
10	ProjectManager	Person officially designated as manager of a project. Project may consist of one or many project teams and sub-teams.
11	ProjectMember	Person on the membership list of a designated project/project team.
12	RegistrationAgency	Institution/organization officially appointed by a Registration Authority to handle specific tasks within a defined area of responsibility.
13	RegistrationAuthority	A standards-setting body from which Registration Agencies obtain official recognition and guidance.
14	RelatedPerson	A person without a specifically defined role in the development of the resource, but who is someone the author wishes to recognize.
15	Researcher	A person involved in analysing data or the results of an experiment or formal study. May indicate an intern or assistant to one of the authors who helped with research but who was not so “key” as to be listed as an author.
16	ResearchGroup	Typically refers to a group of individuals with a lab, department, or division; the group has a particular, defined focus of activity.
17	RightsHolder	Person or institution owning or managing property rights, including intellectual property rights over the resource.
18	Sponsor	Person or organization that issued a contract or under the auspices of which a work has been written, printed, published, developed, etc.

[22] Source of the terms and definitions of the da|rac contributorType is the DataCite Metadata Schema Documentation, version 4.1, https://doi.org/10.5438/0014.

da|ra 3.1	da|ra 4.0	
id	**contributorType**	**definition**[22]
19	Supervisor	Designated administrator over one or more groups/teams working to produce a resource or over one or more steps of a development process.
20	WorkPackageLeader	A Work Package is a recognized data product, not all of which is included in publication. The package, instead, may include notes, discarded documents, etc. The Work Package Leader is responsible for ensuring the comprehensive contents, versioning, and availability of the Work Package during the development of the resource.
21	Other	Any person or institution making a significant contribution to the development and/or maintenance of the resource, but whose contribution does not “fit” other controlled vocabulary for contributorType.

4.1.7 collectionModeType

da|ra 3.1	da|ra 4.0	
id	**collectionModeType**	**definition**[23]
1	Interview	A pre-planned communication between two (or more) people - the interviewer(s) and the interviewee(s) - in which information is obtained by the interviewer(s) from the interviewee(s). If group interaction is part of the method, use "Focus group".
2	Interview.FaceToFace	Data collection method in which a live interviewer conducts a personal interview, presenting questions and entering the responses. Use this broader term if not CAPI or PAPI, or if not known whether CAPI/PAPI or not.
3	Interview.Telephone	Interview administered on the telephone. Use this broader term if not CATI, or if not known whether CATI or not.
4	Interview.Email	Interviews conducted via e-mail, usually consisting of several e-mail messages that allow the discussion to continue beyond the first set of questions and answers, or the first e-mail exchange.
5	Interview.Telephone.CATI	Computer-assisted telephone interviewing. The interviewer asks questions as directed by a computer, responses are keyed directly into the computer and the administration of the interview is managed by a specifically designed program.
6	Interview.FaceToFace.CAPICAMI	Computer-assisted personal interviewing. Data collection method in which the interviewer reads questions to the respondents from the screen of a computer, laptop, or a mobile device like tablet or smartphone, and enters the answers in the same device. The administration of the interview is managed by a specifically designed program/application.
7	SelfAdministeredQuestionnaire	Data collection method in which the respondent reads or listens to the questions, and enters the responses by him/herself; no live interviewer is present, or participates in the questionnaire administration. If possible, use a narrower term. Use this broader term if the method is not described by any of the narrower terms - for example, for PDF and diskette questionnaires.
8	SelfAdministeredQuestionnaire.Paper	Self-administered survey using a traditional paper questionnaire delivered and/or collected by mail (postal services), by fax, or in person by either interviewer, or respondent.
9	SelfAdministeredQuestionnaire.WebBased	Computer-assisted web interviewing (CAWI). Data are collected using a web questionnaire, produced with a program for creating web surveys. The program can customize the flow of the questionnaire based on the answers provided, and can allow for the questionnaire to contain pictures, audio and video clips, links to different web pages etc. (adapted from Wikipedia).
10	SelfAdministeredQuestionnaire.ComputerAssisted	Computer-assisted self-interview (CASI). Respondents enter the responses into a computer (desktop, laptop, Palm/PDA, tablet, etc.) by themselves. The administration of the questionnaire is managed by a specifically designed program/application but there is no real-time data transfer as in CAWI, the answers are stored on the device used for the interview. The questionnaire may be fixed form or interactive. Includes VCASI (Video computer-assisted self-interviewing), ACASI (Audio computer-assisted self-interviewing) and TACASI (Telephone audio computer-assisted self-interviewing).
11	deprecated; use SelfAdministeredQuestionnaire.ComputerAssisted instead	

[23] Source of the terms and definitions of the da|ra collectionModeType is DDI Controlled Vocabulary for modeOfCollection, version 2.1, see: http://www.ddialliance.org/Specification/DDI-CV/ModeOfCollection_2.1.html.

da|ra 3.1	da|ra 4.0	
id	**collectionModeType**	**definition**[23]
12	ContentCoding	As a mode of secondary data collection, content coding applies coding techniques to transform qualitative data (textual, video, audio or still-image) originally produced for other purposes into quantitative data (expressed in unit-by-variable matrices) in accordance with pre-defined categorization schemes. For example, coded party manifesto data like the "European Parliament Election Study 2009, Manifesto Study" (doi:10.4232/1.10204)".
13	Transcription	Capturing information in writing from a different source, or from a different medium, alphabet, or form of notation, like scientific formulae, or musical notes. For transcribed interviews or observations, it is recommended to document the primary mode of collection, using one of the interview or observation terms.
14	CompilationSynthesis	Collecting and assembling data from multiple, often heterogeneous sources that have one or more reference points in common, and at least one of the sources was originally produced for other purposes. The data are incorporated in a new entity. For example, providing data on the number of universities in the last 150 years using a variety of available sources (e.g. finance documents, official statistics, university registers), combining survey data with information about geographical areas from official statistics (e.g. population density, doctors per capita, etc.), or using RSS to collect blog posts or tweets, etc.
15	deprecated; use CompilationSynthesis instead	
16	Recording	Registering by mechanical or electronic means, in a form that allows the information to be retrieved and/or reproduced. For example, images or sounds on disc or magnetic tape.
17	Simulation	Modeling or imitative representation of real-world processes, events, or systems, often using computer programs. For example, a program modeling household consumption responses to indirect tax changes; or a dataset on hypothetical patients and their drug exposure, background conditions, and known adverse events.
18	Observation	Research method that involves collecting data as they occur (for example, observing behaviors, events, development of condition or disease, etc.), without attempting to manipulate any of the independent variables.
19	Observation.Field	Observation that is conducted in a natural environment.
20	Observation.Laboratory	Observation that is conducted in a controlled, artificially created setting. For example, observing children's play in a laboratory playroom.
21	Observation.Field.Participant	Type of field observation in which the researcher interacts with the subjects and often plays a role in the social situation under observation.
22	Experiment	Research method involving the manipulation of some or all of the independent variables included in the hypotheses.
23	FocusGroup	A group discussion on a particular topic, organized for research purposes. The individuals are selected with relevance to the topic, and interaction among the participants is used as part of the method.
25	Interview.FaceToFace.PAPI	Paper-and-pencil interviewing. The interviewer uses a traditional paper questionnaire to read the questions and enter the answers.

da|ra 3.1	da|ra 4.0	
id	**collectionModeType**	**definition**[23]
26	Interview.WebBased	An interview conducted via the Internet. For example, interviews conducted within online forums or using web-based audio-visual technology that enables the interviewer(s) and interviewee(s) to communicate in real time.
27	deprecated; use SelfAdministeredQuestionnaire instead	
28	SelfAdministeredQuestionnaire.Email	Self-administered survey in which questions are presented to the respondent in the text body of an e-mail or as an attachment to an e-mail, but not as a link to a web-based questionnaire. Responses are also sent back via e-mail, in the e-mail body or as an attachment.
29	SelfAdministeredQuestionnaire.SMSorMMS	Self-administered survey in which the respondents receive the questions incorporated in SMS (text messages) or MMS (messages including multimedia content) and send their replies in the same format.
30	deprecated; use SelfAdministeredQuestionnaire instead	
31	deprecated; use SelfAdministeredQuestionnaire.ComputerAssisted instead	
32	deprecated; use SelfAdministeredQuestionnaire.ComputerAssisted instead	
33	deprecated; use SelfAdministeredQuestionnaire.ComputerAssisted instead	
34	FocusGroup.FaceToFace	The focus group participants meet in person to conduct the discussion.
35	FocusGroup.Telephone	The focus group discussion is conducted over the telephone.
36	FocusGroup.Online	The focus group discussion is conducted over the Internet in an interactive manner.
37	SelfAdministeredWritingsAndDiaries	Narratives, stories, diaries, and written texts created by the research subject.
38	SelfAdministeredWritingsAndDiaries.Email	Narratives, stories, diaries, and written texts submitted via e-mail messages.
39	SelfAdministeredWritingsAndDiaries.Paper	Narratives, stories, diaries, and written texts created and collected in paper form.
40	SelfAdministeredWritingsAndDiaries.WebBased	Narratives, stories, diaries, and written texts gathered from Internet sources, e.g. websites, blogs, discussion forums.
41	Observation.Field.Nonparticipant	Observation that is conducted in a natural, non-controlled setting without any interaction between the researcher and his/her subjects.
42	Observation.Laboratory.Participant	Type of laboratory observation in which the researcher interacts with the subjects and often plays a role in the social situation under observation. For example, observing children's play in a laboratory playroom with the researcher taking part in the play.
43	Observation.Laboratory.Nonparticipant	Type of laboratory observation that is conducted without any interaction between the researcher and his/her subjects.
44	Observation.ComputerBased	Type of observation in which data regarding computer usage are being collected by software that can be built into the computer program itself or can be a separate program. Information may be collected about the number of users, the ways in which users interact with the program(s), how much time they spend on a page, how they use specific sections of applications, how they navigate from page to page or from one application to another, etc.

da|ra 3.1	da|ra 4.0	
id	**collectionModeType**	**definition**[23]
45	Experiment.Laboratory	An experiment conducted in a controlled, artificially created physical setting, in which a researcher manipulates one or several independent variables and measures its/their effect on the dependent variable.
46	Experiment.FieldIntervention	An experiment conducted in a natural, uncontrolled setting, in which the researcher manipulates one or several independent variables. Intervention/clinical studies are one example of field experiments.
47	Experiment.WebBased	An experiment conducted in the virtual setting of the World Wide Web, in which experimental materials are programmed to implement artificial situations or events to be investigated in a distributed environment. (Reips, U.-D. (2002). Theory and techniques of Web experimenting. In B. Batinic, U.-D. Reips, and M. Bosnjak (Eds.), Online Social Sciences. Seattle: Hogrefe and Huber. Available at: http://www.websm.org/uploadi/editor/Reips_2002_Theory_and_techniques.pdf [07 June 2013])
48	Summary	Presentation of information in a condensed form, by reducing it to its main points. For example, abstracts of interviews or reports that are published and used as data rather than the full-length interviews or reports.
49	Aggregation	Statistics that relate to broad classes, groups, or categories. The data are averaged, totaled, or otherwise derived from individual-level data, and it is no longer possible to distinguish the characteristics of individuals within those classes, groups, or categories. For example, the number and age group of the unemployed in specific geographic regions, or national level statistics on the occurrence of specific offences, originally derived from the statistics of individual police districts.
50	MeasurementsAndTests	Assessing specific properties (or characteristics) of beings, things, phenomena, (and/ or processes) by applying pre-established standards and/or specialized instruments or techniques.
51	MeasurementsAnd-Tests.Educational	Assessment of knowledge, skills, aptitude, or educational achievement by means of specialized measures or tests.
52	MeasurementsAnd-Tests.Physical	Assessment of physical properties of living beings, objects, materials, or natural phenomena. For example, findings from hands-on medical examination (e.g., palpation or auscultation), clinical measurements and lab tests like blood analysis, blood pressure, heart rate, body weight and height, as well as general measurements like time, distance, mass, temperature, force, power, speed, GPS data on physical movement and other physical parameters or variables, like geospatial data.
53	MeasurementsAnd-Tests.Psychological	Assessment of personality traits or psychological/behavioral responses by means of specialized measures or tests. For example, objective tests like self-report measures with a restricted response format, or projective methods allowing free responses, including word association, sentence or story completion, vignettes, cartoon test, thematic apperception tests, role play, drawing tests, inkblot tests, choice ordering exercises, etc.
24	Other	Use if the mode of data collection is known, but not found in the list.

4.1.8 unitType

da|ra 3.1	da|ra 4.0	
id	**unitType**	**definition**[24]
1	Individual	Any individual person, irrespective of demographic characteristics, professional, social or legal status, or affiliation.
2	Organization	Any kind of formal administrative and functional structure - includes associations, institutions, agencies, businesses, political parties, schools, etc.
3	Family	Two or more people related by blood, marriage (including step-relations), adoption or fostering and who may or may not live together (National Community Services Data Dictionary, Vers 3, AIHW, 2004). For example, used when researching the extent to which people provide support and assistance for their relatives.
4	Family.HouseholdFamily	A more specific term, refers only to related people who live in the same household at a point in time. If not known whether the analysis unit is "Family" or "Household family", use "Family".
5	Household	A person or a group of persons who share the same dwelling unit and common living arrangements. These common living arrangements may include pooling some, or all, of their income and wealth, and consuming certain types of goods and services collectively, mainly housing and food (Eurostat).
6	HousingUnit	U.S. Census: A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from the outside of the building or through a common hall.
7	EventOrProcess	Any type of incident, occurrence, or activity. Events are usually one-time, individual occurrences, with a limited or short duration. Examples: criminal offenses, riots, meetings, elections, sports competitions, terrorist attacks, natural disasters like floods, etc. Processes typically take place over time, and may include multiple "events" or gradual changes that ultimately lead, or are projected to lead, to a particular result. Examples: court trials, criminal investigations, political campaigns, medical treatments, education, athletes' training, etc.
8	GeographicUnit	Any entity that can be spatially defined as a geographic area, with either natural (physical) or administrative boundaries.
9	TimeUnit	Any period of time: year, week, month, day, or bimonthly or quarterly periods, etc.
10	TextUnit	Books, articles, any written piece/entity.
11	Group	Two or more individuals assembled together or having some unifying relationship.
12	Object	Anything material, but inanimate, that has an independent existence and may be perceived by the senses. Examples: objects of art (paintings, sculptures, etc.) or weapons, or vehicles, etc.
13	Other	Use if the unit of analysis is known, but not found in the list.

[24] Source of the terms and definitions of the da|ra unitType is DDI Controlled Vocabulary for Analyses Unit http://www.ddialliance.org/Specification/DDI-CV/AnalysisUnit_1.0.html.

4.1.9 relationType

"relationType" describes the relationship of the registered resource (A) and the related resource (B).

da|ra 3.1	da|ra 4.0	
id	**relationType**	**definition**[25]
1	IsCitedBy	indicates that B includes A in a citation Example: https://doi.org/10.5159/IQB_LV_2011_v1 is cited by urn:nbn:de:kobv:11-100225878
2	Cites	indicates that A includes B in a citation Example: https://doi.org/10.4123/SIDR.000006E.RP cites https://doi.org/10.1093/glycob/cwn088
3	IsSupplementTo	indicates that A is a supplement to B Example: https://doi.org/10.7478/s0549.1.v1 is supplement to https://doi.org/10.5684/soep.v29
4	IsSupplementedBy	indicates that B is a supplement to A Example: https://doi.org/10.7807/microm:kaufkraft:V1 is supplemented by https://doi.org/10.7807/microm:pkwmarken:V1
5	IsContinuedBy	indicates that A is continued by the work B Example: https://doi.org/10.12757/PHF.01.01.01.stata is continued by https://doi.org/10.12757/Bbk.PHF.02.01.01
6	Continues	indicates A is a continuation of the work B Example: https://doi.org/10.12757/Bbk.PHF.02.01.01 continues https://doi.org/10.12757/PHF.01.01.01.stata
7	IsNewVersionOf	indicates A is a new edition of B, where the new edition has been modified or updates Example: https://doi.org/10.4232/1.11005 is new version of https://doi.org/10.4232/1.4804
8	IsPreviousVersionOf	indicates A is a previous edition of B Example: https://doi.org/10.4232/1.4804 is previous version https://doi.org/10.4232/1.11005
9	IsPartOf	indicates A is a portion of B; may be used for elements of a series Example: https://doi.org/10.15501/978-3-86336-909-5_5 is part of https://doi.org/10.15501/978-3-86336-909-5

[25] Source of the terms and definitions of the da|ra relationType is the DataCite Metadata Schema Documentation, 4.1, https://doi.org/10.5438/0014. Examples were taken from DataCite.

da|ra 3.1	da|ra 4.0	
id	**relationType**	**definition**[25]
10	HasPart	indicates A includes the part B Example: https://doi.org/10.15501/978-3-86336-909-5 has part https://doi.org/10.15501/978-3-86336-909-5_5
11	IsReferencedBy	indicates A is used as a source of information by B Example: https://doi.org/10.4123/sidr.000006n.rp is referenced by http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE14798
12	References	indicates B is used as a source of information for A Example: https://doi.org/10.4232/10.mdsdoc.3.1 references https://doi.org/10.5438/0010
13	IsDocumentedBy	indicates B is documentation about/explaining A Example: https://doi.org/10.5156/DEAS.2011.M.002 is documented by https://doi.org/10.5156/DEAS.2011.D.001
14	Documents	indicates A is documentation about/explaining B Example: https://doi.org/10.5156/DEAS.2011.D.001 documents https://doi.org/10.5156/DEAS.2011.M.002
15	IsCompiledBy	indicates B (and other resources) is used to compile or create A Example: https://doi.org/10.6092/INGV.IT-SHARE-SHEEC.1000-1899 Is compiled by https://doi.org/10.6092/INGV.IT-AHEAD
16	Compiles	indicates B is the result of a compile or creation event using A (and other resource). Example: https://doi.org/10.6092/INGV.IT-AHEAD compiles https://doi.org/10.6092/INGV.IT-SHARE-SHEEC.1000-1899
17	IsVariantFormOf	indicates A is a variant or different form of B, e. g. calculated or calibrated form or different packaging Example: https://doi.org/10.7478/s0001.1.v1 is variant form of https://doi.org/10.4232/1.4600
18	IsOriginalFormOf	indicates A is the original form of B Example: https://doi.org/10.15460/HUP.LASH.110.164 is original form of ISBN: 978-3-943423-17-4
19	HasMetadata	indicates A relates to an external file of additional metadata B Example: http://doi.org/10.4232/1.11005 has metadata http://doi.org/10.4232/2.4804.54500

da|ra 3.1	da|ra 4.0	
id	**relationType**	**definition**[25]
20	IsMetadataFor	indicates A is additional metadata for a work or resource B Example: https://doi.org/10.4232/2.4804.54500 is metadata for https://doi.org/10.4232/1.11005
21	IsIdenticalTo	indicates that A is identical to B, for use when there is a need to register two separate instances of the same resource Example: https://doi.org/10.6078/M7PC3083 is identical to ark:/28722/k2wm14t53 http://opencontext.dainst.org/projects/52-florida-site-files
22	IsReviewedBy	indicates that A is reviewed by B Example: https://doi.org/10.15493/SAEON.METACAT.20000005 is reviewed by arXiv:0706.0001
23	Reviews	indicates that A is a review of B Example: https://doi.org/10.15463/rec.376706479 reviews ISBN: 9780253018670
24	IsDerivedFrom	indicates B is a source upon which A is based; IsDerivedFrom should be used for a resource that is a derivative of an original resource. Example: https://doi.org/10.6078/D12 is derived from https://doi.org/10.6078/D16K5W
25	IsSourceOf	indicates A is a source upon which B is based; IsSourceOf is the original resource from which a derivative resource was created. Example: https://doi.org/10.6078/M7PC3083 is source of https://doi.org/10.6078/M7DZ067C
-	Describes	indicates A describes B Example: https://doi.org/10.1038/sdata.2016.123 describes https://doi.org/10.6084/m9.figshare.c.3288407
-	IsDescribedBy	indicates A is described by B Example: https://doi.org/10.6084/m9.figshare.c.3288407 is decribed by https://doi.org/10.1038/sdata.2016.123
-	HasVersion	indicates A has a version (B) Example: https://doi.org/10.5281/ZENODO.832054 has version https://doi.org/10.5281/ZENODO.832053 The registered resource such as a software package or code repository has a versioned instance (indicates A has the instance B) e.g. it may be used to relate an un-versioned code repository to one of its specific software versions.

da|ra 3.1	da|ra 4.0	
id	**relationType**	**definition**[25]
-	IsVersionOf	indicates A is version of B Example: https://doi.org/10.5072/example-software-2.0 is version of https://doi.org/10.5072/example-software-repository The registered resource is an instance of a target resource (indicates that A is an instance of B) e.g. it may be used to relate a specific version of a software package to its software code repository.
-	Requires	indicates A requires B 10.5072/ExampleSoftwareCode requires https://www.r-project.org/ Note: May be used to indicate software dependencies.
-	IsRequiredBy	indicates A is required by B Note: May be used to indicate software dependencies.

4.1.10 pidType

da|ra 3.1	da|ra 4.0	
type	**pidType**	**definition**[26]
ARK	ARK	Archival Resource Key; URL designed to support long-term access to information objects. In general, ARK syntax is of the form (brackets indicate [optional] elements: [http://NMA/]ark:/NAAN/Name[Qualifier]
arXiv	arXiv	arXiv identifier; arXiv.org is a repository of preprints of scientific papers in the fields of mathematics, physics, astronomy, computer science, quantitative biology, statistics, and quantitative finance.
bibcode	bibcode	Astrophysics Data System bibliographic codes; a standardized 19 character identifier according to the syntax yyyyjjjjjvvvvmppppa. See http://info-uri.info/registry/OAIHandler?verb=GetRecord&metadataPrefix=reg&identifier=info:bibcode/
DOI	DOI	Digital Object Identifier; a character string used to uniquely identify an object. A DOI name is divided into two parts, a prefix and a suffix, separated by a slash.
EAN13	EAN13	European Article Number, now renamed International Article Number, but retaining the original acronym, is a 13-digit barcoding standard which is a superset of the original 12-digit Universal Product Code (UPC) system.
EISSN	EISSN	Electronic International Standard Serial Number; ISSN used to identify periodicals in electronic form (eISSN or e-ISSN).
Handle	Handle	A handle is an abstract reference to a resource.

[26] Source of the terms and definitions of the da|ra pidType is the DataCite Metadata Schema Documentation, version 4.1, https://doi.org/10.5438/0014.

da|ra 3.1	da|ra 4.0	
type	**pidType**	**definition**[26]
-	IGSN	International Geo Sample Number; a 9-digit alphanumeric code that uniquely identifies samples from our natural environment and related sampling features.
ISBN	ISBN	International Standard Book Number; a unique numeric book identifier. There are 2 formats: a 10-digit ISBN format and a 13-digit ISBN.
ISSN	ISSN	International Standard Serial Number; a unique 8- digit number used to identify a print or electronic periodical publication.
ISTC	ISTC	International Standard Text Code; a unique “number” assigned to a textual work. An ISTC consists of 16 numbers and/or letters.
LISSN	LISSN	The linking ISSN or ISSN-L enables collocation or linking among different media versions of a continuing resource.
LISD	LISD	Life Science Identifiers; a unique identifier for data in the Life Science domain. Format: urn:lsid:authority:namespace:identifier:revision
PMID	PMID	PubMed identifier; a unique number assigned to each PubMed record.
PURL	PURL	Persistent Uniform Resource Locator. A PURL has three parts: (1) a protocol, (2) a resolver address, and (3) a name.
UPC	UPC	Universal Product Code is a barcode symbology used for tracking trade items in stores. Its most common form, the UPC-A, consists of 12 numerical digits.
URL	URL	Uniform Resource Locator, also known as web address, is a specific character string that constitutes a reference to a resource. The syntax is: scheme://domain:port/path?query_string#fragment_id.
URN	URN	Uniform Resource Name; is a unique and persistent identifier of an electronic document. The syntax is: urn:< NID>:<NSS> The leading urn: sequence is case-insensitive, <NID> is the namespace identifier, <NSS> is the namespace-specific string.

4.1.11 documentType

da|ra 3.1	da|ra 4.0	
id	**documentType**	**definition**[27]
1	WorkingPaper	A preliminary scientific or technical paper released for input and critique (most often grey literature).
2	Article	A nonfictional literary composition that forms an independent part of a publication e. g. in a journal or magazine.
3	Report	A written account of something that one has observed, heard, done, or investigated and that is prepared on ad hoc, periodic, recurring, regular, or as required basis.

[27] Definitions originate from the Oxford English Dictionary http://www.oxforddictionaries.com/.

da|ra 3.1	da|ra 4.0	
id	**documentType**	**definition**[27]
4	Book/ Monograph	A set of written, printed, illustrated or blank sheets that conjoin into one literary work. A monograph is a non-serial publication on a single subject or an aspect of a subject, usually by a single author.
5	Manuscript	A book, document, or other composition written by hand as well as text submitted to the publisher or printer in preparation for publication, regardless of the format.
6	ReferenceBook	A book, such as a dictionary or encyclopaedia, to which one can refer for authoritative information and intended primarily for consultation rather than for consecutive reading.
7	Review	An evaluation of e. g. a publication, theory or synthesis of research on a topic at that moment in time.
8	Series	A (regularly) sequence of publications like books or journal articles that have (roughly) the same subject.
9	Journal	Newspaper or magazine that deals with a particular subject or professional activity and that is issued in a regular cycle.
10	Newspaper	A printed publication (usually issued daily or weekly) consisting of folded unstapled sheets and containing news, articles, advertisements and correspondence.

4.1.12 identifierSchemaType

identifierSchemaType	definition
ISNI	International Standard Name Identifier (ISNI) is the ISO certified global standard number for identifying the millions of contributors to creative works and those active in their distribution, including researchers, inventors, writers, artists, visual creators, performers, producers, publishers, aggregators, and more. (see http://www.isni.org)
GRID	The Global Research Identifier Database (GRID) is comprised of a worldwide collection of institutes associated with academic research. The institutes contained are distinguished by a unique identifier, GRID ID. (see https://www.grid.ac)
CrossRefFunderID	Crossref Funder ID is an identifier for an organization that funds research, in the Crossref Funder Registry. (see https://www.crossref.org/services/funder-registry/)
VIAF	The Virtual International Authority File (VIAF) combines multiple name authority files into a single OCLC-hosted name authority service. VIAF seeks to include authoritative names from many libraries into a global service that is available via the Web. (see https://www.oclc.org/en/viaf.html & https://viaf.org/)
GND	The Integrated Authority File (GND = Gemeinsame Normdatei) is an authority file for persons, corporate bodies, conferences and events, geographic information, topics and works. It is used above all for the cataloguing of literature by libraries, but it is also increasingly being deployed in archives, museums, projects and web applications. (see http://www.dnb.de/EN/Standardisierung/GND/gnd_node.html)

identifierSchemaType	definition
ORCID	ORCID provides a persistent digital identifier for individuals to use with their name as they engage in research, scholarship, and innovation activities. (see https://orcid.org/)
Other	If none of the listed identifier types are suitable, the type Other may be selected to provide an alternative identifier type.

4.1.13 licenseType

licenseType	definition[28]
CC0.1.0	CC0 1.0 Universal The person who associated a work with this deed has dedicated the work to the public domain by waiving all of his or her rights to the work worldwide under copyright law, including all related and neighboring rights, to the extent allowed by law.
PublicDomainMark.1.0	Public Domain Mark 1.0 This work has been identified as being free of known restrictions under copyright law, including all related and neighboring rights.
CC.BY-NC-ND.4.0	Attribution-NonCommercial-NoDerivatives 4.0 International You are free to: Share — copy and redistribute the material in any medium or fomat Under the following terms: Attribution — You must give appropriate credit, provide a link to the license, and indicates if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. NonCommercial — You may not use the material for commercial purposes. NoDerivatives — If you remix, transform, or build upon the material, you may not distribute the modified material.

[28] Source of the terms and definitions of licenseType are the Creative Commons, see https://creativecommons.org/.

licenseType	definition[28]
CC.BY-NC.4.0	Attribution-NonCommercial 4.0 International You are free to: Share — copy and redistribute the material in any medium or format Adapt — remix, transform, and build upon the material Under the following terms: Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. NonCommercial — You may not use the material for commercial purposes.
CC.BY-NC-SA.4.0	Attribution-NonCommercial-ShareAlike 4.0 International You are free to: Share — copy and redistribute the material in any medium or format Adapt — remix, transform, and build upon the material Under the following terms: Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. NonCommercial — You may not use the material for commercial purposes. ShareAlike — If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original.
CC.BY-ND.4.0	Attribution-NoDerivatives 4.0 International You are free to: Share — copy and redistribute the material in any medium or format for any purpose, even commercially. Under the following terms: Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. NoDerivatives — If you remix, transform, or build upon the material, you may not distribute the modified material.
CC.BY.4.0	Attribution 4.0 International You are free to: Share — copy and redistribute the material in any medium or format Adapt — remix, transform, and build upon the material for any purpose, even commercially. Under the following terms: Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

licenseType	definition[28]
CC.BY-SA.4.0	Attribution-ShareAlike 4.0 International You are free to: Share — copy and redistribute the material in any medium or format Adapt — remix, transform, and build upon the material for any purpose, even commercially. Under the following terms: Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. ShareAlike — If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original.
Other	If none of the listed licences is suitable, use Other and describe it in the following freetext element of right.

4.2 Appendix 2: Mappings

4.2.1 da|ra Version 3.1 to da|ra Version 4.0

da|ra 3.1			da|ra 4.0		
seq	**property**	**occ**	**seq**	**property**	**occ**
1	resourceType[29]	1	1	resourceType	1
2	resourcetypesFree	0-1	2	resourcetypesFree	0-1
2.1	resourceTypeFree	1-2	2.1	resourcetypeFree	1-n
2.1.1	language	1	2.1.1	language	1
2.1.2	typeName	1	2.1.2	typeName	1
3	resourceIdentifier	0-1	3	resourceIdentifier	0-1
3.1	identifier	1	3.1	identifier	1
3.2	currentVersion	0-1	3.2	currentVersion	0-1
4	titles	1	4	titles	1
4.1	title	1-2	4.1	title	1-n
4.1.1	language	1	4.1.1	language	1
4.1.2	titleName	1	4.1.2	titleName	1
5	otherTitles	0-1	5	otherTitles	0-1
5.1	otherTitle	1-n	5.1	otherTitle	1-n
5.1.1	language	1	5.1.1	language	1
5.1.2	titleName	1	5.1.2	titleName	1
5.1.3	titleType	1	5.1.3	titleType	1
6	collectiveTitles	0-1	6	collectiveTitles	0-1
6.1	collectiveTitle	1-2	6.1	collectiveTitle	1-n
6.1.1	language	1	6.1.1	language	1
6.1.2	titleName	1	6.1.2	titleName	1
6.1.3	numbering	0-1	6.1.3	numbering	0-1
7	creators	1	7	creators	1
7.1	creator[30]	1-n	7.1	creator	1-n
7.1.1	person	1	7.1.1	person	1

[29] Please consider the changes of the controlled vocabulary (see 4.1.1).

[30] A selection must be made: either a person or an institution must be specified. (As a result there is no real element sequence of both within the container.)

da|ra 3.1			da|ra 4.0		
seq	**property**	**occ**	**seq**	**property**	**occ**
7.1.1.1	firstName	1	7.1.1.1	firstName	1
7.1.1.2	middleName	0-1	7.1.1.2	middleName	0-1
7.1.1.3	lastName	1	7.1.1.3	lastName	1
7.1.1.4	personIDs	0-1	7.1.1.4	personIDs	0-1
7.1.1.4.1	personID	1-n	7.1.1.4.1	personID	1-n
7.1.1.4.1.1	identifier	1	-	-	-
-	-[31]	-	7.1.1.4.1.1	identifierURI	1
7.1.1.4.1.2	identifierSchema	1	7.1.1.4.1.2	identifierSchema	1
7.1.1.4.1.3	schemaURI	1	-	-	-
7.1.1.5	affiliation	0-1	7.1.1.5	affiliation	0-1
7.1.1.5.1	affiliationName	1-2	-	see 7.1.1.5.1 below	-
7.1.1.5.1.1	language	1	-	-	-
7.1.1.5.1.2	name	1	7.1.1.5.1	affiliationName[32]	1
7.1.1.5.2	affiliationIDs	0-1	7.1.1.5.2	affiliationIDs	0-1
7.1.1.5.2.1	affiliationID	1-n	7.1.1.5.2.1	affiliationID	0-1
7.1.1.5.2.1.1	identifier	1	-	-	-
-	-[31]	-	7.1.1.5.2.1.1	identifierURI	1
7.1.1.5.2.1.2	identifierSchema	1	7.1.1.5.2.1.2	identifierSchema	1
7.1.1.5.2.1.3	schemaURI	1	-	-	-
7.1.2	institution	1	7.1.2	institution	1
7.1.2.1	institutionName	1-2	-	see 7.1.2.1 below	-
7.1.2.1.1	language	1	-	-	-
7.1.2.1.2	name	1	7.1.2.1	institutionName[32]	1
7.1.2.2	institutionIDs	0-1	7.1.2.2	institutionIDs	0-1
7.1.2.2.1	institutionID	1-n	7.1.2.2.1	institutionID	1-n
	identifier	1	-	-	-
-	-[31]	-	7.1.2.2.1.1	identifierURI	1
	identifierSchema	1	7.1.2.2.1.2	identifierSchema	1

[31] Entries in deprecated schemaURI+identifier might result in identifierURI.

[32] Since da|ra metadata scheme, version 4.0 the properties affiliationName as well as institutionName are no longer language-dependent.

da|ra 3.1			da|ra 4.0		
seq	**property**	**occ**	**seq**	**property**	**occ**
	schemaURI	1	-	-	-
8	dataURLs	1	8	dataURLs	1
8.1	dataURL	1-n	8.1	dataURL	1-n
9	doiProposal	0-1	9	doiProposal	0-1
10	publicationDate	1	10	publicationDate	1
10.1	date || monthyear || year	1	10.1	date || monthyear || year	1
11	glPlace	0-1	11	publicationPlace	0-1
-	-	-	12	publisher[33]	0-1
-	-	-	12.1	person	1
-	-	-	12.1.1	firstName	1
-	-	-	12.1.2	middleName	0-1
-	-	-	12.1.3	lastName	1
-	-	-	12.1.4	personIDs	0-1
-	-	-	12.1.4.1	personID	1-n
-	-	-	12.1.4.1.1	identifierURI	1
-	-	-	12.1.4.1.2	identifierSchema	1
-	-	-	12.1.5	affiliation	0-1
-	-	-	12.1.5.1	affiliationName	1
-	-	-	12.1.5.2	affiliationIDs	0-1
-	-	-	12.1.5.2.1	affiliationID	1-n
-	-	-	12.1.5.2.1.1	identifierURI	1
-	-	-	12.1.5.2.1.2	identifierSchema	1
-	-	-	12.2	institution	1
-	-	-	12.2.1	institutionName	1
-	-	-	12.2.2	institutionIDs	0-1
-	-	-	12.2.2.1	institutionID	1-n
-	-	-	12.2.2.1.1	identifierURI	1

[33] If no publisher is provided, da|ra uses information about the publication agent, inter alia, to map the required metadata to DataCite.
A selection must be made: either a person or an institution must be specified. (As a result there is no real element sequence of both within the container.)

da|ra 3.1			da|ra 4.0		
seq	**property**	**occ**	**seq**	**property**	**occ**
-	-	-	12.2.2.1.2	identifierSchema	1
12	availability	1	13	availability	1
12.1	availabilityControlled	0-1	13.1	availabilityType	1
12.2	availabilityFree	0-2	13.2	availabilityFree	0-n
12.2.1	language	1	13.2.1	language	1
12.2.2	availabilityText	1	13.2.2	freetext	1
-	-	-	13.3	embargoDate	0-1
13	rights	0-1	14	rights	0-1
-	-	-	14.1	licenseType	0-1
13.1	right	1-2	14.2	right	0-n
13.1.1	language	1	14.2.1	language	1
13.1.2	rightsText	1	14.2.2	freetext	1
14	resourceLanguage	0-1	15	resourceLanguage	0-1
15	alternativeIDs	0-1	16	alternativeIDs	0-1
15.1	alternativeID	1-n	16.1	alternativeID	1-n
15.1.1	identifier	1	16.1.1	identifier	1
15.1.2	type	1	16.1.2	type	1
16	classifications	0-1	17	classifications	0-1
16.1	classification	1-n	17.1	classification[34]	1-n
16.1.1	classificationInternal	1	17.1.1	classificationInternal	1
16.1.1.1	schema	1	17.1.1.1	classificationSchema	1
16.1.1.2	identifiers	1	17.1.1.2	identifiers	1
16.1.1.2.1	identifier	1-n	17.1.1.2.1	identifier	1-n
16.1.2	classificationExternal	1	17.1.2	classificationExternal	1
16.1.2.1	language	1	17.1.2.1	language	1
16.1.2.2	schema	1	17.1.2.2	classificationSchema	0-1
16.1.2.4	terms	1	17.1.2.4	terms	1
16.1.2.4.1	term	1-n	17.1.2.4.1	term	1-n

[34] A selection must be made: either a classificationInternal or a classificationExternal must be specified. (As a result there is no real element sequence of both within the container.)

da|ra 3.1			da|ra 4.0		
seq	**property**	**occ**	**seq**	**property**	**occ**
17	controlledKeywords	0-1	18	controlledKeywords	0-1
17.1	controlledKeyword	1-n	18.1	controlledKeyword	1-n
17.1.1	schema	1	18.1.1	keywordSchemaType	1
17.1.2	identifiers	1	18.1.2	identifiers	1
17.1.2.1	identifier	1-n	18.1.2.1	identifier	1-n
18	freeKeywords	0-1	19	freeKeywords	0-1
18.1	freeKeyword	1-2	19.1	freeKeyword	1-n
18.1.1	language	1	19.1.1	language	1
-	-	-	19.1.2	keywordSchema	0-1
18.1.2	keywords	1	19.1.3	keywords	1
18.1.2.1	keyword	1-n	19.1.3.1	keyword	1-n
19	descriptions	0-1	20	descriptions	0-1
19.1	description	1-n	20.1	description	1-n
19.1.1	language	1	20.1.1	language	1
19.1.2	freetext	1	20.1.2	freetext	1
19.1.3	type	1	20.1.3	descriptionType	1
20	geographicCoverages	0-1	21	geographicCoverages	0-1
20.1	geographicCoverage	1-n	21.1	geographicCoverage	1-n
20.1.1	language	1		see 21.1.2.1.1 below	
20.1.2	geographicCoverageControlled	18.1	21.1.1	geographicCoverageControlled	0-1
-	-	-	21.1.2	geographicCoveragesFree	0-1
-	-	-	21.1.2.1	geographicCoverageFree	1-n
	see 20.1.1 above		21.1.2.1.1	language	1
20.1.3	freetext	0-1	21.1.2.1.2	freetext	1
20.1.4	geoLocationPoint	0-1	21.1.3	geoLocationPoint[35]	0-1
-	-	-	21.1.3.1	pointLongitude	1
-	-	-	21.1.3.2	pointLatitude	1
20.1.5	geoLocationBox	0-1	21.1.4	geoLocationBox[36]	0-1

[35] The latitude-longitude pair separated by white space must be split when mapping to the sub-properties of geoLocation Point, version 4.0.

da|ra 3.1			da|ra 4.0		
seq	**property**	**occ**	**seq**	**property**	**occ**
-	-	-	21.1.4.1	westBoundLongitude	1
-	-	-	21.1.4.2	eastBoundLongitude	1
-	-	-	21.1.4.3	southBoundLatitude	1
-	-	-	21.1.4.4	northBoundLatitude	1
-	-	-	21.1.5	geoLocationPolygon	0-1
-	-	-	21.1.5.1	polygonPoint	4-n
-	-	-	21.1.5.1.1	pointLongitude	1
-	-	-	21.1.5.1.2	pointLatitude	1
21	universes	0-1	22	universes	0-1
21.1	universe	1-2	22.1	universe	1-n
21.1.1	language	1	22.1.1	language	1
21.1.2	sampled	1	22.1.2	sampled	1
22	samplings	0-1	23	samplings	0-1
22.1	sampling	1-2	23.1	sampling	1-n
22.1.1	language	1	23.1.1	language	1
22.1.2	method	1	23.1.2	method	1
23	temporalCoverages	0-1	24	temporalCoverages	0-1
23.1	temporalCoverage	1-n	24.1	temporalCoverage	1-n
23.1.1	language	1		see 24.1.2.1.1 below	
23.1.2	temporalCoverageFree	0-1		see 24.1.2.1.2 below	
23.1.3	temporalCorverageFormal	0-1	24.1.1	temporalCoverageFormal	0-1
23.1.3.1	startDate	1	24.1.1.1	startDate	1
23.1.3.1.1	date || monthyear || year	1	24.1.1.1.1	date || monthyear || year	1
23.1.3.2	endDate	0-1	24.1.1.2	endDate	0-1
23.1.3.2.1	date || monthyear || year	1	24.1.1.2.1	date|| monthyear|| year	1
-	-	-	24.1.2	temporalCoveragesFree	0-1
-	-	-	24.1.2.1	temporalCoverageFree	1-n
	see 23.1.1 above		24.1.2.1.1	language	1

[36] The same applies to geoLocationBox, containing two whitespace separated latitude-longitude pairs, with each pair separated by whitespace.

da|ra 3.1			da|ra 4.0		
seq	**property**	**occ**	**seq**	**property**	**occ**
	see 24.1.32 above		24.1.2.1.2	freetext	1
24	timeDimensions	0-1	25	timeDimensions	0-1
24.1	timeDimension	1-n	25.1	timeDimension	1-n
24.1.1	language	1		see 25.1.2.1.1 below	
24.1.2	timeDimensionControlled	0-1	25.1.1	timeDimensionType	0-1
-	-		25.1.2	timeDimensionsFree	0-1
	see 24.1.3 below		25.1.2.1	timeDimensionFree	0-n
	see 24.1.1 above		25.1.2.1.1	language	1
24.1.3	timeDimensionFree	0-1	25.1.2.1.2	freetext	1
-	-	-	25.1.3	frequencies	0-1
	see 24.1.4 below		25.1.3.1	frequency	0-n
	see 24.1.1 above		25.1.3.1.1	language	1
24.1.4	frequency	0-1	25.1.3.1.2	freetext	1
25	contributors	0-1	26	contributors	0-1
25.1	contributor	1-n	26.1	contributor[37]	1-n
25.1.1	person	1	26.1.1	person	1
25.1.1.1	firstName	1	26.1.1.1	firstName	1
25.1.1.2	middleName	0-1	26.1.1.2	middleName	0-1
25.1.1.3	lastName	1	26.1.1.3	lastName	1
25.1.1.4	contributorType[38]	1	26.1.1.4	contributorType	1
25.1.1.5	personIDS	0-1	26.1.1.5	personIDs	0-1
25.1.1.5.1	personID	1-n	26.1.1.5.1	personID	1-n
25.1.1.5.1.1	identifier	1	-	-	-
-	-[39]	-	26.1.1.5.1.1	identifierURI	1
25.1.1.5.1.2	identifierSchema	1	26.1.1.5.1.2	identifierSchema	1
25.1.1.5.1.3	schemaURI	1	-	-	-

[37] A selection must be made: either a person or an institution must be specified. (As a result there is no real element sequence of both within the container.)

[38] Please consider the changes of controlled vocabulary (see 4.1.6). Contributor of type funder is deprecated and should now be mapped to new property fundingReference.

[39] Entries in deprecated schemaURI+identifier might result in identifierURI.

da|ra 3.1			da|ra 4.0		
seq	**property**	**occ**	**seq**	**property**	**occ**
25.1.1.6	affiliation	0-1	26.1.1.6	affiliation	0-1
25.1.1.6.1	affiliationName	1-2	-	see 26.1.1.6.1 below	-
25.1.1.6.1.1	language	1	-	-	-
25.1.1.6.1.2	name	1	26.1.1.6.1	affiliationName[40]	1
25.1.1.6.2	affiliationIDs	0-1	26.1.1.6.2	affiliationIDs	0-1
25.1.1.6.2.1	affiliationID	1-n	26.1.1.6.2.1	affiliationID	1-n
25.1.1.6.2.1.1	idendifier	1	-	-	-
	-[41]		26.1.1.6.2.1.1	identifierURI	1
25.1.1.6.2.1.2	identifierSchema	1	26.1.1.6.2.1.2	identifierSchema	1
25.1.1.6.2.1.3	schemaURI	1	-	-	-
25.1.2	institution	1	26.1.2	institution	1
25.1.2.1	institutionName	1-2	-	see 26.1.2.1 below	-
25.1.2.1.1	language	1	-	-	-
25.1.2.1.2	name	1	26.1.2.1	institutionName[42]	1
25.1.2.2	contributorType	1	26.1.2.2	contributorType	1
25.1.2.3	institiutionIDs	0-1	26.1.2.3	institutionIDs	0-1
25.1.2.3.1	institutionID	1-n	26.1.2.3.1	institutionID	1-n
25.1.2.3.1.1	identifier	1	-	-	-
	-[41]		26.1.2.3.1.1	identifierURI	1
25.1.2.3.1.2	identifierSchema	1	26.1.2.3.1.2	identifierSchema	1
25.1.2.3.1.3	schemaURI	1	-	-	-
-	-	-	27	fundingReferences	0-1
-	-	-	27.1	fundingReference	1-n
-	-	-	27.1.1	person	1
-	-	-	27.1.1.1	firstName	1
-	-	-	27.1.1.2	middleName	0-1

[40] Since da|ra metadata scheme, version 4.0 the properties affiliationName as well as institutionName are no longer language-dependent.

[41] Entries in deprecated schemaURI+identifier might result in identifierURI.

[42] Since da|ra metadata scheme, version 4.0 the properties affiliationName as well as institutionName are no longer language-dependent.

da|ra 3.1			da|ra 4.0		
seq	**property**	**occ**	**seq**	**property**	**occ**
-	-	-	27.1.1.3	lastName	1
-	-	-	27.1.1.4	personIDs	0-1
-	-	-	27.1.1.4.1	personID	1-n
-	-	-	27.1.1.4.1.1	identifierURI	1
-	-	-	27.1.1.4.1.2	identifierSchemaType[43]	1
-	-	-	27.1.1.5	affiliation	0-1
-	-	-	27.1.1.5.1	affiliationName	1
-	-	-	27.1.1.5.2	affiliationIDs	0-1
-	-	-	27.1.1.5.2.1	affiliationID	1-n
-	-	-	27.1.1.5.2.1.1	identifierURI	1
-	-	-	27.1.1.5.2.1.2	identifierSchemaType	1
-	-	-	27.1.2	institution	1
-	-	-	27.1.2.1	institutionName	1
-	-	-	27.1.2.2	institutionIDs	0-1
-	-	-	27.1.2.2.1	institutionID	1-n
-	-	-	27.1.2.2.1.1	identifierURI	1
-	-	-	27.1.2.2.1.2	identifierSchemaType	1
-	-	-	27.1.3	awardNumber	0-1
-	-	-	27.1.4	awardURI	0-1
-	-	-	27.1.5	awardTitle	0-1
-	-	-	27.1.5.1	language	1
-	-	-	27.1.5.2	title	1
-	-	-	28	collectionModes	0-1
-	-	-	28.1	collectionMode	1-n
26	collectionModesFree	0-1		see 28.1.2 below	
26.1	collectionModeFree	1-2		see 28.1.2.1 below	
26.1.1	language	1		see 28.1.2.2	

[43] For unique funder identifiers (person or institution) the identifierSchema is of the type identifierSchemaType (see 4.1.12) while for other unique person or institution identifiers the identifierSchema is a simple string.

da|ra 3.1			da|ra 4.0		
seq	**property**	**occ**	**seq**	**property**	**occ**
26.1.2	modeFree	1		see 28.1.2.3	
27	collectionModeControlled	0-1	28.1.1	collectionModeType	0-1
	see 26 above		28.1.2	collectionModesFree	0-1
	see 26.1 above		28.1.2.1	collectionModeFree	1-n
	see 26.1.1 above		28.1.2.2	language	1
	see 26.1.2 above		28.1.2.3	freetext	1
28	dataSets	0-1	29	dataSets	0-1
28.1.	dataset	1-n	29.1.	dataSet	1-n
28.1.1	language	1		see 29.1.4.1.1 below	
28.1.2	unitType	0-1	29.1.1	unitType[44]	0-1
28.1.3	numberUnits	0-1	29.1.2	numberUnits	0-1
28.1.4	numberVariables	0-1	29.1.3	numberVariables	0-1
28.1.5	dataType	0-1		see 29.1.4.1.2 below	
-	-	-	29.1.4	datatypes	0-1
	see 28.1.5 above		29.1.4.1	dataType	1-n
	see 28.1.1 above		29.1.4.1.1	language	1
	see 28.1.5 above		29.1.4.1.2	freetext	1
28.1.6	files	0-1	29.1.5	files	0-1
28.1.6.1	file	1-n	29.1.5.1	file[45]	1-n
28.1.6.1.1	name[46]	0-1	29.1.5.1.1	name	0-1
28.1.6.1.2	format	0-1	29.1.5.1.2	format	0-1
28.1.6.1.3	size	0-1	29.1.5.1.3	size	0-1
28.1.6.1.4	fingerprint	0-1	29.1.5.1.4	fingerprint	0-1
28.1.6.1.5	fingerprintMethod	0-1	29.1.5.1.5	fingerprintMethod	0-1
29	notes	0-1	30	notes	0-1

[44] UnitType and numberUnits are in a contextual context so that when unitType is used, numberUnits becomes a mandatory element and vice versa. Finally it means that both together are mandatory, otherwise none of them must be used.

[45] A selection must be made when file is used: at least one of the child elements (29.1.5.1.1 - 29.1.5.1.5) must be specified.

[46] In da|ra 3.1 temporaly there was a bug. Although the name of a file was declared as optional it was treated as a mandatory input.

da|ra 3.1			da|ra 4.0		
seq	**property**	**occ**	**seq**	**property**	**occ**
29.1	note	1-2	30.1	note	1-n
30	relations	0-1	31	relations	0-1
30.1	relation	1-n	31.1	relation	1-n
30.1.1	identifier	1	31.1.1	identifier	1
30.1.2	identifierType	1	31.1.2	identifierType	1
30.1.3	relationType	1	31.1.3	relationType	1
-	-	-	31.1.4	resourceType	0-1
30.1.4	relatedMetadataSchema	0-1	31.1.5	relatedMetadataSchema	0-1
30.1.5	schemaType	0-1	31.1.6	schemaType	0-1
30.1.6	schemaURI	0-1	31.1.7	schemaURI	0-1
31	publications	0-1	32	publications	0-1
31.1	publication	1-n	32.1	publication[47]	1-n
31.1.1	structuredPublication	1	32.1.1	structuredPublication	1
31.1.1.1	doctype	0-1	32.1.1.1	documentType	0-1
31.1.1.2	authorsEditors	1	32.1.1.2	authorsEditors	1
31.1.1.2.1	authorEditor	1-n	32.1.1.2.1	authorEditor	1-n
31.1.1.2.1.1	author	1	32.1.1.2.1.1	author	0-1
31.1.1.2.1.1.1	firstName	1	32.1.1.2.1.1.1	firstName	1
31.1.1.2.1.1.2	middleName	0-1	32.1.1.2.1.1.2	middleName	0-1
31.1.1.2.1.1.3	lastName	1	32.1.1.2.1.1.3	lastName	1
31.1.1.2.1.2	editor	1	32.1.1.2.1.2	editor	0-1
31.1.1.2.1.2.1	name	1	32.1.1.2.1.2.1	name	1
31.1.1.3	title	1	32.1.1.3	title	1
31.1.1.4	year	0-1	32.1.1.4	year	0-1
31.1.1.5	publisher	0-1	32.1.1.5	publisher	0-1
31.1.1.6	places	0-1	32.1.1.6	places	0-1
31.1.1.7	journal	0-1	32.1.1.7	journal	0-1
31.1.1.8	volume	0-1	32.1.1.8	volume	0-1

[47] A selection must be made within publication as a container element: either structuredPublication or unstructeredPublication must be specified. (As a result there is no real element sequence of both within the container.)

da|ra 3.1			da|ra 4.0		
seq	**property**	**occ**	**seq**	**property**	**occ**
31.1.1.9	issue	0-1	32.1.1.9	issue	0-1
31.1.1.10	anthology	0-1	32.1.1.10	anthology	0-1
31.1.1.11	pages	0-1	32.1.1.11	pages	0-1
31.1.1.12	isbn	0-1	32.1.1.12	isbn	0-1
31.1.1.13	ISSNs	0-1	32.1.1.13	ISSNs	0-1
31.1.1.13.1	ISSNs	1-n	32.1.1.13.1	ISSN	1-n
31.1.1.14	sowiportID[48]	0-1	-	-	-
31.1.1.15	PIDs	0-1	32.1.1.14	PIDs	0-1
31.1.1.15.1	PID	1-n	32.1.1.14.1	PID	1-n
31.1.1.15.1.1	ID	1	32.1.1.14.1.1	ID	1
31.1.1.15.1.2	pidType	1	32.1.1.14.1.2	pidType	1
31.1.2	unstructurePublication	1	32.1.2	unstructuredPublication	1
31.1.2.1	freetext	1	32.1.2.1	freetext	1
31.1.2.2	PIDs	0-1	32.1.2.2	PIDs	0-1
31.1.2.2.1	PID	1-n	32.1.2.2.1	PID	1-n
31.1.2.2.1.1	ID	1	32.1.2.2.1.1	ID	1
31.1.2.2.1.2	pidType	1	32.1.2.2.1.2	pidType	1

4.2.2 da|ra Version 4.0 to DublinCore

xPath syntax is used to express the mapping.

[+] da|ra element has additional child element 'language' not explicit listed but mapped to the language attribute of the according DublinCore element when applicable.

Element attribute value in blue corresponds with the da|ra element (some elements omitted for brevity).

da|ra element	DublinCore[49] element@attribute
resourceType	dc:type
resourceTypesFree/resourceTypeFree[+]/typeName	dc:type[@xml:lang=language]
resourceIdentifier/identifier	-

[48] The metadata element sowiportID is deprecated and must not be used anymore in da|ra version 4.0.

[49] http://dublincore.org/documents/dces/

da|ra element	DublinCore[49] element@attribute
resourceIdentifier/currentVersion	-
titles/title+/titleName	dc:title[@xml:lang=language]
otherTitles/otherTitle+/titleName	dc:title[@xml:lang=language]
otherTitles/otherTitle+/titleType	-
collectiveTitles/collectiveTitle+/titleName	dc:source[@xml:lang=language]
collectiveTitles/collectiveTitle+/numbering	(together with titleName to dc:source see above)
creators/creator/person/child::* [self::firstName or self::middleName and self::lastName] [self::firstName and self::lastName]	dc:creator[lastName, firstName middleName]
creators/creator/person/firstName	see above
creators/creator/person/middleName	(to first Name see above)
creators/creator/person/lastName	see above
creators/creator/person/personIDs/personID/ identifierURI	-
creators/creator/person/personIDs/personID/ identifierSchema	-
creators/creator/person/affiliation/affiliationName	-
creators/creator/person/affiliation/affiliationIDs	-
creators/creator/institution/institutionName	dc:creator
creators/creator/institution/institutionIDs/ institutionID/identifierURI	-
creators/creator/institution/institutionIDs/ institutionID/identifierSchema	-
dataURLs/dataURL	dc:identifier
doi	dc:identifier
publicationDate/child::*	dc:date
publicationPlace	-
publisher/person/child::*	dc:publisher[lastName, firstName middleName]
publisher/person/personIDs	-
publisher/person/affiliation	-
publisher/institution/institutionName	dc:publisher
publisher/institution/institutionIDs	-
availability/availabilityType	dc:right[@xml:lang=”en”]
availability/availabilityFree+/freetext	dc:right[@xml:lang=language]

da|ra element	DublinCore[49] element@attribute
availability/embargoDate	-
rights/right+/freetext	dc:rights[@xml:lang=language]
rights/licenseType	dc:rights
resourceLanguage	dc:language
alternativeIDs/alternativeID/identifier	dc:identifier[type:type]
alternativeIDs/alternativeID/type	see above
classifications/classification/classificationInternal/ identifiers/identifier	dc:subject[@xml:lang=”en”]
classifications/classification/classificationInternal/ schema	-
classifications/classification/classificationExternal+/ terms/term	dc:subject[@xml:lang=language]
classifications/classification/classificationExternal+/ schema	-
controlledKeywords/controlledKeyword/identifiers/ identifier	dc:subject[@xml:lang=”en”]
controlledKey-words/controlledKeyword/keywordSchemaType	-
freeKeywords/freeKeyword+/keywords/keyword	dc:subject[@xml:lang=language]
freeKeywords/freeKeyword+/keywordSchema	-
descriptions/description+/freetext	dc:description[@xml:lang=language]
descriptions/description+/descriptionType	-
geographicCoverages/geographicCoverage/ geographicCoverageControlled	dc:coverage[@xml:lang=”en”]
geographicCoverages/geographicCoverage/ geographicCoverages-Free/geographicCoverageFree+/ freetext	dc:coverage[@xml:lang=language]
geographicCoverages/geographicCoverage/ geoLocationPoint/pointLongitude	-
geographicCoverages/geographicCoverage/ geoLocationPoint/pointLatitude	-
geographicCoverages/geographicCoverage/ geoLocationBox/westBoundLongitude	-
geographicCoverages/geographicCoverage/ geoLocationBox/eastBoundLongitude	-
geographicCoverages/geographicCoverage/ geoLocationBox/southBoundLatitude	-

da|ra element	**DublinCore[49] element@attribute**
geographicCoverages/geographicCoverage/ geoLocationBox/northBoundLatitude	-
geographicCoverages/geographicCoverage/ geoLocationPolygon/polygonPoint/pointLongitude	-
geographicCoverages/geographicCoverage/ geoLocationPolygon/polygonPoint/pointLatitude	-
universes/universe+/sampled	dc: description[@xml:lang=language]
samplings/sampling+/method	dc: description[@xml:lang=language]
temporalCoverages/temporalCoverage/ temporalCoverageFormal/child::* (if child::startDate and child::endDate then both should be mapped to dc:coverage as range)	dc:coverage[startDate – endDate]
temporalCoverages/temporalCoverage/ temporalCoveragesFree+/freetext	dc:coverage[@xml:lang=language]
timeDimensions	-
contributors/contributor/person/child::* [self::firstName or self::middleName and self::lastName] [self::firstName and self::lastName]	dc:contributor[lastName, firstName middleName]
contributors/contributor/person/firstName	(see above)
contributors/contributor/person/middleName	(to first Name see above)
contributors/contributor/person/lastName	(see above)
contributors/contributor/person/contributorType	-
contributors/contributor/person/personIDs/personID/ identifierURI	-
contributors/contributor/person/personIDs/personID/ identifierSchema	-
contributors/contributor/person/affiliation/ affiliationName	-
contributors/contributor/person/affiliation/ affiliationIDs	-
contributors/contributor/institution/institutionName	dc:contributor
contributors/contributor/institution/contributorType	-
contributors/contributor/institution/institutionIDs/ institutionID/identifierURI	-
contributors/contributor/institution/institutionIDs/ institutionID/identifierSchema	-

da|ra element	DublinCore[49] element@attribute
fundingReferences/fundingReference/person/child::* [self::firstName or self::middleName and self::lastName] [self::firstName and self::lastName]	dc:contributor[lastName, firstName middleName]
fundingReferences/fundingReference/person/personIDs/personID[1]/identifierURI	-
fundingReferences/fundingReference/person/personIDs/personID[1]/identifierSchemaType	-
fundingReferences/fundingReference/person/affiliation	-
fundingReferences/fundingReference/person/award/awardNumber	-
fundingReferences/fundingReference/person/award/awardURI	-
fundingReferences/fundingReference/person/award/awardTitle+/title	-
fundingReferences/fundingReference/institution/institutionName	dc:contributor
fundingReferences/fundingReference/institution/institutionIDs/institutionID[1]/identifierURI	-
fundingReferences/fundingReference/institution/institutionIDs/institutionID/identifierSchemaType	-
fundingReferences/fundingReference/institution/award/awardNumber	-
fundingReferences/fundingReference/institution/award/awardURI	-
fundingReferences/fundingReference/institution/award/awardTitle/title	-
collectionModes/collectionMode/collectionModeType	dc:description[@xml:lang=”en”]
collec-tionModes/collectionMode/collectionModesFree/collectionModeFree+/freetext	dc:description[@xml:lang=language]
dataSets/dataSet/unitType	-
dataSets/dataSet/numberUnits	-
dataSets/dataSet/numberVariables	-
dataSets/dataSet/dataTypes/dataType+/freetext	dc:type[@xml:lang=language]
dataSets/dataSet/files/file/name	-
dataSets/dataSet/files/file/format	dc:format
dataSets/dataSet/files/file/size	-

da|ra element	**DublinCore[49] element@attribute**
dataSets/dataSet/fingerprint	-
dataSets/dataSet/fingerprintMethod	-
notes/note+/text	dc.description[@xml:lang=language]
relations/relation/identifier	dc.relation[identifierType: identifier]
relations/relation/identifierType	(see above)
relations/relation/relationType	-
relations/relation/relatedMetadataSchema	-
relations/relation/schemaType	-
relations/relation/schemaURI	-
publications	-

4.2.3 da|ra Version 4.0 to DataCite Version 4.1

xPath syntax is used to express the mapping.

[+] da|ra element has additional child element 'language' not explicit listed but mapped to the language attribute of the according DataCite element when applicable

[++] If a repeatable language dependent element in da|ra is not repeatable in DataCite then the da|ra element with language=en should be mapped, otherwise the next possible entry.

[1] If in da|ra a repeatable language-independent element is not repeatable in DataCite then the first da|ra element should be mapped.

Element attribute value in blue corresponds with the da|ra element.

da|ra element	DataCite element@attribute
doi	identifier[@identifierType="DOI"]
resourceType	resource-Type[@resourceTypeGeneral=resourceType]
resourceTypesFree/resourceTypeFree[+]/typeName	(to resourceType see above)
resourceIdentifier/identifier	-
resourceIdentifier/currentVersion	version
titles/title[+]/titleName	titles/title[@xml:lang=language]
otherTitles/otherTitle[+]/titleName	titles/title[@xml:lang=language and @titleType=titleType]
otherTitles/otherTitle[+]/titleType	(see above)
collectiveTitles/collectiveTitle[+]/titleName	description[@xml:lang=language and @descriptionType="SeriesInformation"]
collectiveTitles/collectiveTitle[+]/numbering	(together with titleName to description see above)
creators/creator/person/child::* [self::firstName or self::middleName and self::lastName]	crea-tors/creator/creatorName[@nameType="Personal"]
creators/creator/person/firstName	creators/creator/givenName
creators/creator/person/middleName	(to givenName see above)
creators/creator/person/lastName	creators/creator/familyName
creators/creator/person/personIDs/personID/ identifierURI	creators/creator/nameIdentifier [@nameIdentifierScheme=identifierSchema]
creators/creator/person/personIDs/personID/ identifierSchema	(see above)
creators/creator/person/affiliation/affiliationName[+]/ name	creators/creator/affiliation
creators/creator/person/affiliation/affiliationIDs	-
creators/creator/institution/institutionName[+]/name	creators/creator/creatorName [@nameType="Organizational"]

da|ra element	DataCite element@attribute
creators/creator/institution/institutionIDs/ institutionID/identifierURI	creators/creator/nameIdentifier [@nameIdentifierScheme=identifierSchema]
creators/creator/institution/institutionIDs/ institutionID/identifierSchema	(see above)
dataURLs/dataURL	-
doiProposal	-
publicationDate/child::*	publicationYear
publicationPlace	-
publisher/person/child::*	publisher
publisher/person/personIDs	-
publisher/person/affiliation	-
publisher/institution/institutionName+/name	publisher
publisher/institution/institutionIDs	-
availability/availabilityType	-
availability/availabilityFree	-
availability/embargoDate	date[@dateType=”Available”]
rights/right+/freetext	rightsList/rights[@xml:lang=language and @xml:lang=licenseType]
rights/licenseType	rightsList/rights[@xml:lang=”en” and @xml:lang=licenseType]
resourceLanguage	language
alternativeIDs/alternativeID/identifierURI	alternateIdentifiers/alternateIdentifier [@alternateIdentifierType=type]
alternativeIDs/alternativeID/type	(see above)
classifications/classification/classificationInternal/ identifiers/identifier	subjects/subject[@xml:lang=”en” and @subjectScheme=schema]
classifications/classification/classificationInternal/ schema	(see above)
classifications/classification/classificationExternal+/ terms/term	subjects/subject[@xml:lang=language and @subjectScheme=schema]
classifications/classification/classificationExternal+/ classificationSchema	(see above)
controlledKeywords/controlledKeyword/identifiers/ identifier	subjects/subject[@xml:lang=”en” and @subjectScheme=schema]
controlledKey-words/controlledKeyword/keywordSchemaType	(see above)

da|ra element	DataCite element@attribute
freeKeywords/freeKeyword+/keywords/keyword	subjects/subject[@xml:lang=language and @subjectScheme=schema]
freeKeywords/freeKeyword+/keywordSchema	(see above)
descriptions/description+/freetext	descriptions/description[@xml:lang=language and @descriptionType=type]
descriptions/description+/descriptionType	(see above)
geographicCoverages/geographicCoverage/ geographicCoverageControlled	geoLocations/geoLocation/geoLocationPlace
geographicCoverages/geographicCoverage/ geographicCoverages-Free/geographicCoverageFree+/ freetext	geoLocations/geoLocation/geoLocationPlace
geographicCoverages/geographicCoverage/ geoLocationPoint/pointLongitude	geoLocations/geoLocation/ geoLocationPoint/pointLongitude
geographicCoverages/geographicCoverage/ geoLocationPoint/pointLatitude	geoLocations/geoLocation/ geoLocationPoint/pointLatitude
geographicCoverages/geographicCoverage/ geoLocationBox/westBoundLongitude	geoLocations/geoLocation/ geoLocationBox/westBoundLongitude
geographicCoverages/geographicCoverage/ geoLocationBox/eastBoundLongitude	geoLocations/geoLocation/ geoLocationBox/eastBoundLongitude
geographicCoverages/geographicCoverage/ geoLocationBox/southBoundLatitude	geoLocations/geoLocation/ geoLocationBox/southBoundLatitude
geographicCoverages/geographicCoverage/ geoLocationBox/northBoundLatitude	geoLocations/geoLocation/ geoLocationBox/northBoundLatitude
geographicCoverages/geographicCoverage/ geoLocationPolygon/polygonPoint/pointLongitude	geoLocations/geoLocation/ geoLocationPolygon/polygonPoint/pointLongitude
geographicCoverages/geographicCoverage/ geoLocationPolygon/polygonPoint/pointLatitude	geoLocations/geoLocation/ geoLocationPolygon/polygonPoint/pointLatitude
universes/universe+/sampled	descriptions/description[@xml:lang=language and @descriptionType=”methods”]
samplings/sampling+/method	descriptions/description[@xml:lang=language and @descriptionType=”methods”]
temporalCoverages/temporalCoverage/ temporalCoverageFormal/child::* (if child::startDate and child::endDate then both should be mapped to date as range)	dates/date[@dateType=”Collected”]
temporalCoverages/temporalCoverage/ temporalCoveragesFree	-
timeDimensions	-
contributors/contributor/person/child::* [self::firstName or self::middleName and self::lastName]	contributors/contributor [@contributorType=contributorType] /contributorName[@nameType="Personal"]

da|ra element	DataCite element@attribute
contributors/contributor/person/firstName	contributors/contributor/givenName
contributors/contributor/person/lastName	contributors/contributor/familyName
contributors/contributor/person/contributorType	(see above)
contributors/contributor/person/personIDs/personID/ identifierURI	contributors/contributor/nameIdentifier [@nameIdentifierScheme=identifierSchema]
contributors/contributor/person/personIDs/personID/ identifierSchema	(see above)
contributors/contributor/person/affiliation/ affiliationName+/name	contributors/contributor/affiliation
contributors/contributor/person/affiliation/ affiliationIDs	-
contributors/contributor/institution/institutionName+/ name	contributors/contributor [@contributorType=contributorType] /contributorName[@nameType="Organizational"]
contributors/contributor/institution/institutionName+/ contributorType	(see above)
contributors/contributor/institution/institutionIDs/ institutionID/identifierURI	contributors/contributor/nameIdentifier [@nameIdentifierScheme=identifierSchema]
contributors/contributor/institution/institutionIDs/ institutionID/identifierSchema	(see above)
fundingReferences/fundingReference/person/child::* [self::firstName or self::middleName and self::lastName]	fundingReferences/fundingReference/funderName
fundingReferences/fundingReference/person/ personIDs/personID[1]/identifierURI	fundingReferences/fundingReference/ funderIdentifier [@funderIdentifierType=identifierSchemaType]
fundingReferences/fundingReference/person/ personIDs/personID[1]/identifierSchemaType	(see above)
fundingReferences/fundingReference/person/ affiliation	-
fundingReferences/fundingReference/person/award/ awardNumber	fundingReferences/fundingReference/ awardNumber[@awardURI=awardURI]
fundingReferences/fundingReference/person/award/ awardURI	(see above)
fundingReferences/fundingReference/person/award/ awardTitle+/title	fundingReferences/fundingReference/awardTitle
fundingReferences/fundingReference/institution/ institutionName++/name	fundingReferences/fundingReference/funderName
fundingReferences/fundingReference/institution/ institutionIDs/institutionID[1]/identifierURI	fundingReferences/fundingReference/ funderIdentifier [@funderIdentifierType=identifierSchemaType]

da|ra element	DataCite element@attribute
fundingReferences/fundingReference/institution/ institutionIDs/institutionID/identifierSchemaType	(see above)
fundingReferences/fundingReference/institution/ award/awardNumber	fundingReferences/fundingReference/ awardNumber[@awardURI=awardURI]
fundingReferences/fundingReference/institution/ award/awardURI	(see above)
fundingReferences/fundingReference/institution/ award/awardTitle/title	fundingReferences/fundingReference/awardTitle
collectionModes/collectionMode/collectionModeType	descriptions/description[@xml:lang=”en” and @descriptionType=“methods“]
collec-tionModes/collectionMode/collectionModesFree/collectionModeFree+/freetext	descriptions/description[@xml:lang=language and @descriptionType=“methods“]
dataSets/dataSet/unitType	-
dataSets/dataSet/numberUnits	-
dataSets/dataSet/numberVariables	-
dataSets/dataSet/dataTypes	-
dataSets/dataSet/files/file/name	-
dataSets/dataSet/files/file/format	formats/format
dataSets/dataSet/files/file/size	sizes/size
dataSets/dataSet/fingerprint	-
dataSets/dataSet/fingerprintMethod	-
notes	-
relations/relation/identifier	relatedIdentifiers/relatedIdentifier [@relatedIdentifierType=identifierType and @relationType=relationType and @resourceTypeGeneral=resourceType and @relatedMetadataScheme=relatedMetadataSchema and @schemeType=schemaType and @schemeURI=schemaURI]
relations/relation/identifierType	(see above)
relations/relation/relationType	(see above)
relations/relation/resourceType	(see above)
relations/relation/relatedMetadataSchema	(see above)
relations/relation/schemaType	(see above)
relations/relation/schemaURI	(see above)
publications	-

4.2.4 da|ra Version 4.0 to DDI Version 3.2[50]

No.	XSD-element (da|ra 4.0)	DDI 3.2
1	resourceType	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/dc:Datacollection/dc:CollectionEvent/dc:DataSource-/dc:SourceType (with @codeListName="resourceTypeGeneral")
2	resourceTypesFree	-
2.1	resourceTypeFree	-
2.1.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/dc:Datacollection/dc:CollectionEvent/dc:DataSource/-dc:SourceType/dc:SourceDescription/r:Content (with xml:lang= {$language})
2.1.2	typeName	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/dc:Datacollection/dc:CollectionEvent/dc:DataSource/-dc:SourceType/dc:SourceDescription/r:Content
3	resourceIdentifier	Container element
3.1	identifier	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:UserID (with @typeOfUserID="dara:resourceIdentifier")
3.2	currentVersion	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:UserID (with @userIDVersion="{$currentVersion}")
4	titles	-
4.1	title	-
4.1.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Title/r:String (with xml:lang= {$language})
4.1.2	titleName	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Title/r:String
5	otherTitles	-
5.1	otherTitle	-
5.1.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:SubTitle/r:String (with xml:lang= {$language}) or ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:AlternateTitle/r:String (with xml:lang= {$language})
5.1.2	titleName	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:SubTitle/r:String or ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:AlternateTitle/r:String

[50] https://www.ddialliance.org

No.	XSD-element (da|ra 4.0)	DDI 3.2
5.1.3	titleType	For alternative title: ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:AlternateTitle/r:String (mit xml:lang="de" isTranslation="false") For secondary title: ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:SubTitle/r:String (mit xml:lang="de" isTranslation="false") For original title: ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Title/r:String (mit xml:lang="de" isTranslation="false") For translated title: ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Title/r:String (mit xml:lang="en" isTranslation="yes")
6	collectiveTitles	-
6.1	collectiveTitle	-
6.1.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/dc:language
6.1.2	titleName	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/dc:title
6.1.3	numbering	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/dc:extent
7	creators	-
7.1	creator	-
7.1.1	person	-
7.1.1.1	firstName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:IndividualName/a:FirstGiven + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Creator/r:CreatorReference/r:TypeOfObject (here: ID of Individual)
7.1.1.2	middleName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:IndividualName/a:Middle + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Creator/r:CreatorReference/r:TypeOfObject (here: ID of Individual)
7.1.1.3	lastName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:IndividualName/a:LastFamily + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Creator/r:CreatorReference/r:TypeOfObject (here: ID of Individual)
7.1.1.4	personIDs	-

No.	XSD-element (da|ra 4.0)	DDI 3.2
7.1.1.4.1	personID	-
7.1.1.4.1.1	identifierURI	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:ResearcherID/a:ResearcherIdentification + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Creator/r:CreatorReference/r:TypeOfObject (here: ID of Individual)
7.1.1.4.1.2	identifierSchema	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:ResearcherID/a:ResearcherIdentification + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Creator/r:CreatorReference/r:TypeOfObject (here: ID of Individual)
7.1.1.5	affiliation	-
7.1.1.5.1	affiliationName	Name of the affiliation: ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/a:OrganizationIdentification/a:OrganizationName/r:String Connect person with affiliation: ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/r:Relation/a:SourceObject/a:IndividualReference/r:TypeOfObject="Individual" (here: ID of Individual) + ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/r:Relation/a:TargetObject/a:OrganizationReference/r:TypeOfObject="Organization" (here: ID of Organization) How or why the TargetObject (Organization) and the SourceObject (Individual) are connected: ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/r:Relation/a:TargetObject/a:Role/r:Description/r:Content="Affiliation" + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Creator/r:CreatorReference/r:TypeOfObject (here: ID of Organization)
7.1.1.5.2	affiliationIDs	-
7.1.1.5.2.1	affiliationID	-
7.1.1.5.2.1.1	identifierURI	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/r:UserID + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Creator/r:CreatorReference/r:TypeOfObject (here: ID of Organization)

No.	XSD-element (da|ra 4.0)	DDI 3.2
7.1.1.5.2.1.2	identifierSchema	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/r:UserID (with @typeOfUserID) + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Creator/r:CreatorReference/r:TypeOfObject (here: ID of Organization)
7.1.2	institution	-
7.1.2.1	institutionName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/a:OrganizationIdentification/a:OrganizationName/r:String + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Creator/r:CreatorReference/r:TypeOfObject (here: ID of Organization)
7.1.2.2	institutionIDs	-
7.1.2.2.1	institutionID	-
7.1.2.2.1.1	identifierURI	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/r:UserID + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Creator/r:CreatorReference/r:TypeOfObject (here: ID of Organization see above)
7.1.2.2.1.2	identifierSchema	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/r:UserID (with @typeOfUserID) + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Creator/r:CreatorReference/r:TypeOfObject (here: ID of Organization see above)
8	dataURLs	-
8.1	dataURL	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/pi:PhysicalInstance//pi:DataFileIdentification/pi:DataFileURI
9	doiProposal	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/pi:PhysicalInstance//pi:DataFileIdentification/pi:Location
10	publicationDate	-
10.1	date || monthyear || year	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:PublicationDate/r:SimpleDate
11	publicationPlace	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization//a:ContactInformation/a:LocationName/r:String + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Publisher/r:PublisherReference/r:TypeOfObject (here ID of Organization see above)
12	publisher	-
12.1	person	-

No.	XSD-element (da|ra 4.0)	DDI 3.2
12.1.1	firstName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:IndividualName/a:FirstGiven + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Publisher/r:PublisherReference/r:TypeOfObject (here ID of Individual see above)
12.1.2	middleName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:IndividualName/a:Middle + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Publisher/r:PublisherReference/r:TypeOfObject (here ID of Individual see above)
12.1.3	lastName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:IndividualName/a:LastFamily + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Publisher/r:PublisherReference/r:TypeOfObject (here ID of Individual see above)
12.1.4	personIDs	-
12.1.4.1	personID	-
12.1.4.1.1	identifierURI	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:ResearcherID/a:ResearcherIdentification + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Publisher/r:PublisherReference/r:TypeOfObject (here ID of Individual see above)
12.1.4.1.2	identifierSchema	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:ResearcherID/a:ResearcherIdentification + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Publisher/r:PublisherReference/r:TypeOfObject (here ID of Individual see above)
12.1.5	affiliation	-

No.	XSD-element (da|ra 4.0)	DDI 3.2
12.1.5.1	affiliationName	Name of the affiliation: ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/a:OrganizationIdentification/a:OrganizationName/r:String Connect person with affiliation: ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/r:Relation/a:SourceObject/a:IndividualReference/r:TypeOfObject="Individual" (here: ID of Individual) + ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/r:Relation/a:TargetObject/a:OrganizationReference/r:TypeOfObject="Organization" (here: ID of Organization) How or why the TargetObject (Organization) and the SourceObject (Individual) are connected: ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/r:Relation/a:TargetObject/a:Role/r:Description/r:Content="Affiliation" + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Publisher/r:PublisherReference/r:TypeOfObject (here ID of Organization see above)
12.1.5.2	affiliationIDs	-
12.1.5.2.1	affiliationID	-
12.1.5.2.1.1	identifierURI	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/r:UserID + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Publisher/r:PublisherReference/r:TypeOfObject (here ID of Organization see above)
12.1.5.2.1.2	identifierSchema	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/r:UserID (with @typeOfUserID) + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Publisher/r:PublisherReference/r:TypeOfObject (here ID of Organization see above)
12.2	institution	-
12.2.1	institutionName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/a:OrganizationIdentification/-a:OrganizationName/r:String + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Publisher/r:PublisherReference/r:TypeOfObject (here ID of Organization see above)
12.2.2	institutionIDs	-
12.2.2.1	institutionID	-

No.	XSD-element (da|ra 4.0)	DDI 3.2
12.2.2.1.1	identifierURI	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/r:UserID + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Publisher/r:PublisherReference/r:TypeOfObject (here ID of Organization see above)
12.2.2.1.2	identifierSchema	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/r:UserID (with @typeOfUserID) + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Publisher/r:PublisherReference/r:TypeOfObject (here ID of Organization see above)
13	availability	-
13.1	availabilityType	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/a:Archive/r:Note/TypeOfNote (with @codeListName="TypeOfNote"="availabilityType") + Reference to the object: ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/a:Archive/r:Note/r:Relationship/r:RelatedToReference/r:TypeOfObject="OtherMaterial" + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/a:Archive/r:Note/r:NoteContent/r:Content
13.2	availabilityFree	-
13.2.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/a:Archive/a:ArchiveSpecific/a:Item/a:Access/r:Description/r:Content (with @xml:lang = {$language})
13.2.2	freetext	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/a:Archive/a:ArchiveSpecific/a:Item/a:Access/r:Description/r:Content
13.3	embargoDate	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Embargo/r:SimpleDate
14	rights	-
14.1	licenseType	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:UserAttributePair/r:AttributeKey (with @codeListName = licenseType) and r:AttributeValue=4 (CC BY-NC 4.0)
14.2	right	-
14.2.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Copyright/r:String (with @xml:lang = {$language})

No.	XSD-element (da|ra 4.0)	DDI 3.2
14.2.2	freetext	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Copyright/r:String
15	resourceLanguage	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial (with @xml:lang = {$language})
16	alternativeIDs	-
16.1	alternativeID	-
16.1.1	identifier	ddi:DDIInstance/g:Group/s:StudyUnit/r:UserID
16.1.2	type	ddi:DDIInstance/g:Group/s:StudyUnit/r:UserID (mit @typeOfUserID="AlternateID")
17	classifications	-
17.1	classification	-
17.1.1	classificationInternal	-
17.1.1.1	schema	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:TopicalCoverage/r:Subject (with @codeListName="ZA-Categories")
17.1.1.2	identifiers	-
17.1.1.2.1	identifier	no mapping: instead use Subject within TopicalCoverage to save the name of the class ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:TopicalCoverage/r:Subject=Politics
17.1.2	classificationExternal	-
17.1.2.1	language	g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:TopicalCoverage/r:Subject (with @xml:lang = {$language})
17.1.2.2	classificationSchema	g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:TopicalCoverage/r:Subject
17.1.2.3	terms	-
17.1.2.3.1	term	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:TopicalCoverage/r:Subject
18	controlledKeywords	-
18.1	controlledKeyword	-
18.1.1	keywordSchemaType	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:TopicalCoverage/r:Keyword (with @codeListName)
18.1.2	identifiers	-
18.1.2.1	identifier	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:TopicalCoverage/r:Subject=Politics

No.	XSD-element (da|ra 4.0)	DDI 3.2
19	freeKeywords	-
19.1	freeKeyword	-
19.1.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:TopicalCoverage/r:Keyword (with @xml:lang = {$language})
19.1.2	keywordSchema	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:TopicalCoverage/r:Keyword (with @codeListName)
19.1.3	keywords	-
19.1.3.1	keyword	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:TopicalCoverage/r:Keyword
20	descriptions	-
20.1	description	-
20.1.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Abstract/r:Content (with @xml:lang = {$language})
20.1.2	freetext	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Abstract/r:Content
20.1.3	descriptionType	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:UserAttributePair/r:AttributeKey =1.Abstract and r:AttributeValue=The Abstract goes here
21	geographicCoverages	-
21.1	geographicCoverage	-
21.1.1	geographicCoverageControlled	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:SpatialCoverage/r:Country_2 (with @codeListName=ISO-Code)
21.1.2	geographicCoveragesFree	-
21.1.2.1	geographicCoverageFree	-
21.1.2.1.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:SpatialCoverage/r:Description/r:Content (with @xml:lang = {$language})
21.1.2.1.2	freetext	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:SpatialCoverage/r:Description/r:Content
21.1.3	geoLocationPoint	-

No.	XSD-element (da|ra 4.0)	DDI 3.2
21.1.3.1	pointLongitude	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/c:ConceptualComponent/c:GeographicLocationScheme/-r:GeographicLocation/r:LocationValue/r:GeographicBoundary/r:BoundingPolygon/r:Point/r:XCoordinate (with coordinateType="DecimalDegree") and r:CoordinateValue + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/c:ConceptualComponent/c:GeographicLocationScheme/-r:GeographicLocation/r:LocationValue/r:GeographicBoundary/r:BoundingPolygon/r:Point/Y:Coordinate (with coordinateType="DecimalDegree") and r:CorrdinateValue
21.1.3.2	pointLatitude	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/c:ConceptualComponent/c:GeographicLocationScheme/-r:GeographicLocation/r:LocationValue/r:GeographicBoundary/r:BoundingPolygon/r:Point/r:XCoordinate (with coordinateType="DecimalDegree") and r:CoordinateValue + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/c:ConceptualComponent/c:GeographicLocationScheme/-r:GeographicLocation/r:LocationValue/r:GeographicBoundary/r:BoundingPolygon/r:Point/Y:Coordinate (with coordinateType="DecimalDegree") and r:CorrdinateValue
21.1.4	geoLocationBox	-
21.1.4.1	westBoundLongitude	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:SpatialCoverage/r:BoundingBox-/r:WestLongitude
21.1.4.2	eastBoundLongitude	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:SpatialCoverage/r:BoundingBox/-r:EastLongitude
21.1.4.3	southBoundLatitude	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:SpatialCoverage/r:BoundingBox/-r:SouthLatitude
21.1.4.4	northBoundLatitude	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:SpatialCoverage/r:BoundingBox/-r:NorthLatitude
21.1.5	geoLocationPolygon	-

No.	XSD-element (da|ra 4.0)	DDI 3.2
21.1.5.1	polygonPoint	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/c:ConceptualComponent/c:GeographicLocationScheme/-r:GeographicLocation/r:LocationValue/r:GeographicBoundary/r:BoundingPolygon/r:Point/r:XCoordinate (with coordinateType="DecimalDegree") and r:CoordinateValue + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/c:ConceptualComponent/c:GeographicLocationScheme/-r:GeographicLocation/r:LocationValue/r:GeographicBoundary/r:BoundingPolygon/r:Point/Y:Coordinate (with coordinateType="DecimalDegree") and r:CorrdinateValue
21.1.5.1.1	pointLongitude	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/c:ConceptualComponent/c:GeographicLocationScheme/-r:GeographicLocation/r:LocationValue/r:GeographicBoundary/r:BoundingPolygon/r:Point/r:XCoordinate (with coordinateType="DecimalDegree") and r:CoordinateValue + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/c:ConceptualComponent/c:GeographicLocationScheme/-r:GeographicLocation/r:LocationValue/r:GeographicBoundary/r:BoundingPolygon/r:Point/Y:Coordinate (with coordinateType="DecimalDegree") and r:CorrdinateValue
21.1.5.1.2	pointLatitude	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/c:ConceptualComponent/c:GeographicLocationScheme/-r:GeographicLocation/r:LocationValue/r:GeographicBoundary/r:BoundingPolygon/r:Point/r:XCoordinate (with coordinateType="DecimalDegree") and r:CoordinateValue + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/c:ConceptualComponent/c:GeographicLocationScheme/-r:GeographicLocation/r:LocationValue/r:GeographicBoundary/r:BoundingPolygon/r:Point/Y:Coordinate (with coordinateType="DecimalDegree") and r:CorrdinateValue
22	universes	-
22.1	universe	-
22.1.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/c:ConceptualComponent/c:UniverseScheme-/c:Universe/r:Description/r:Content (with @xml:lang = {$language})

No.	XSD-element (da|ra 4.0)	DDI 3.2
22.1.2	sampled	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/c:ConceptualComponentc:UniverseScheme/c:Universe/-r:Description/-r:Content
23	samplings	-
23.1	sampling	-
23.1.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/dc:DataCollection/dc:Methodology/-dc:SamplingProcedure/r:Description/r:Content (with @xml:lang = {$language})
23.1.2	method	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/dc:DataCollection/dc:Methodology/-dc:SamplingProcedure/r:Description/r:Content
24	temporalCoverages	-
24.1	temporalCoverage	-
24.1.1	temporalCoverageFormal	-
24.1.1.1	startDate	-
24.1.1.1.1	date || monthyear || year	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:TemporalCoverage/-r:ReferenceDate/r:StartDate
24.1.1.2	endDate	-
24.1.1.2.1	date || monthyear || year	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:TemporalCoverage/-r:ReferenceDate/r:EndDate
24.1.2	temporalCoveragesFree	-
24.1.2.1	temporalCoverageFree	-
24.1.2.1.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:TemporalCoverage/r:ReferenceDate/-r:Subject (with @xml:lang = {$language})
24.1.2.1.2	freetext	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Coverage/r:TemporalCoverage/-r:ReferenceDate/r:Subject
25	timeDimensions	-
25.1	timeDimension	-
25.1.1	timeDimensionType	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/dc:DataCollection/dc:Methodology/dc:TimeMethod/-dc:TypeofTimeMethod (with @codeListName="timeDimensionType")
25.1.2	timeDimensionsFree	-

No.	XSD-element (da|ra 4.0)	DDI 3.2
25.1.2.1	timeDimensionFree	-
25.1.2.1.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/dc:DataCollection/dc:Methodology/dc:TimeMethod/-r:Description/r:Content (with @xml:lang = {$language})
25.1.2.1.2	freetext	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/dc:DataCollection/dc:Methodology/dc:TimeMethod/-r:Description/r:Content
25.1.3	frequencies	-
25.1.3.1	frequency	-
25.1.3.1.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/dc:DataCollection/dc:CollectionEvent/-dc:DataCollectionFrequency/dc:IntendedFrequency (@otherValue={$language})
25.1.3.1.2	freetext	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/dc:DataCollection/dc:CollectionEvent/-dc:DataCollectionFrequency/dc:IntendedFrequency
26	contributors	-
26.1	contributor	-
26.1.1	person	-
26.1.1.1	firstName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:IndividualName/-a:FirstGiven + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Contributor/r:ContributorReference/r:TypeOfObject="Individual" (here ID of Individual)
26.1.1.2	middleName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:IndividualName/-a:MiddleName + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Contributor/r:ContributorReference/r:TypeOfObject="Individual" (here ID of Individual)
26.1.1.3	lastName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:IndividualName/-a:LastFamily + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Contributor/r:ContributorReference/r:TypeOfObject="Individual" (here ID of Individual)

No.	XSD-element (da|ra 4.0)	DDI 3.2
26.1.1.4	contributorType	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Contributor/r:ContributorRole (with @codeListName="contributorType") + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Contributor/r:ContributorReference/r:TypeOfObject="Individual" (here ID of Individual)
26.1.1.5	personIDs	-
26.1.1.5.1	personID	-
26.1.1.5.1.1	identifierURI	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:ResearcherID/a:ResearcherIdentification + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Contributor/r:ContributorReference/r:TypeOfObject="Individual" (here ID of Individual)
26.1.1.5.1.2	identifierSchema	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:ResearcherID/a:ResearcherIdentification + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Contributor/r:ContributorReference/r:TypeOfObject="Individual" (here ID of Individual)
26.1.1.6	affiliation	-
26.1.1.6.1	affiliationName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/a:OrganizationIdentification/a:OrganizationName/r:String + ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/r:Relation/a:SourceObject/a:IndividualReference/r:TypeOfObject="Individual" (here: ID of Individual) and ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/r:Relation/a:TargetObject/a:OrganizationReference/r:TypeOfObject="Organization" (here: ID of Organization) + ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/r:Relation/a:TargetObject/a:Role/r:Description/r:Content="ContributorAffiliation" + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Contributor/r:ContributorReference/r:TypeOfObject="Individual" (here ID of Organization)

No.	XSD-element (da|ra 4.0)	DDI 3.2
26.1.1.6.2	affiliationIDs	-
26.1.1.6.2.1	affiliationID	-
26.1.1.6.2.1.1	identifierURI	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/r:UserID
26.1.1.6.2.1.2	identifierSchema	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/r:UserID (mit @typeOfUserID)
26.1.2	institution	-
26.1.2.1	institutionName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/a:OrganizationIdentification/a:OrganizationName/r:String + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Contributor/r:ContributorReference/r:TypeOfObject="Organization" (here ID of Organization)
26.1.2.2	contributorType	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Citation/r:Contributor/r:ContributorRole (with @codeListName="contributorType")
26.1.2.3	institutionIDs	-
26.1.2.3.1	institutionID	-
26.1.2.3.1.1	identifierURI	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/r:UserID
26.1.2.3.1.2	identifierSchema	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/r:UserID (with @typeOfUserID)
27	fundingReferences	-
27.1	fundingReference	-
27.1.1	person	-
27.1.1.1	firstName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:IndividualName/a:FirstGiven + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:FundingInformation/r:AgencyOrganizationReference/-r:TypeOfObject=”Individual” (here ID of Individual)
27.1.1.2	middleName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:IndividualName/a:Middle + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:FundingInformation/r:AgencyOrganizationReference/-r:TypeOfObject=”Individual” (here ID of Individual)

No.	XSD-element (da|ra 4.0)	DDI 3.2
27.1.1.3	lastName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:IndividualName/a:LastFamily + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:FundingInformation/r:AgencyOrganizationReference/-r:TypeOfObject=”Individual” (here ID of Individual)
27.1.1.4	personIDs	-
27.1.1.4.1	personID	-
27.1.1.4.1.1	identifierURI	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:ResearcherID/a:ResearcherIdentification + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:FundingInfor-mation/r:AgencyOrganizationReference/r:TypeOfObject=”Individual” (here ID of Individual)
27.1.1.4.1.2	identifierSchemaType	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Individual/a:IndividualIdentification/a:ResearcherID/a:TypeOfID (with @codeListName="identifierSchemaType"= GRID/GND/Orchid...and codeListURN) + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:FundingInformation/r:AgencyOrganizationReference-/r:TypeOfObject=”Individual” (here ID of Individual)
27.1.1.5	affiliation	-

No.	XSD-element (da|ra 4.0)	DDI 3.2
27.1.1.5.1	affiliationName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/a:OrganizationIdentification/a:OrganizationName/r:String + ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/r:Relation/a:SourceObject/a:IndividualReference/r:TypeOfObject="Individual" (here: ID of Individual) + ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/r:Relation/a:TargetObject/a:OrganizationReference/r:TypeOfObject="Organization (here: ID of Organization) + ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/r:Relation/a:TargetObject/a:Role/r:Description/r:Content="Affiliation" + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:FundingInformation/r:AgencyOrganizationReference/r:TypeOfObject=”Organization” (here ID of Organization)
27.1.1.5.2	affiliationIDs	-
27.1.1.4.2.2.1	affiliationID	-
27.1.1.4.2.2.1.1	identifierURI	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/r:UserID + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:FundingInformation/r:AgencyOrganizationReference/-r:TypeOfObject=”Organization” (here ID of Organization)
27.1.1.4.2.2.1.2	identifierSchemaType	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/r:UserID (mit @typeOfUserID) + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:FundingInformation/r:AgencyOrganizationReference-/r:TypeOfObject=”Organization” (here ID of Organization)
27.1.1.6	award	-
27.1.1.6.1	awardNumber	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:FundingInformation/r:GrantNumber
27.1.1.6.2	awardURI	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:FundingInformation/r:Description/r:Content
27.1.1.6.3	awardTitle	-

No.	XSD-element (da|ra 4.0)	DDI 3.2
27.1.1.6.3.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:FundingInformation/r:Description/r:Content (mit @xml:lang = {$language})
27.1.1.6.3.2	title	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:FundingInformation/r:Description/r:Content
27.1.2	institution	-
27.1.2.1	institutionName	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/a:OrganizationIdentification/a:OrganizationName/r:String + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:FundingInformation/r:AgencyOrganizationReference/r:TypeOfObject=”Organization” (here ID of Organization)
27.1.2.2	institutionIDs	-
27.1.2.2.1	institutionID	-
27.1.2.2.1.1	identifierURI	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/r:UserID
27.1.2.2.1.2	identifierSchemaType	ddi:DDIInstance/g:ResourcePackage/a:OrganizationScheme/a:Organization/r:UserID (with @typeOfUserID)
27.1.2.3	award	-
27.1.2.3.1	awardNumber	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:FundingInformation/r:GrantNumber
27.1.2.3.2	awardURI	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:FundingInformation/r:Description/r:Content
27.1.2.3.3	awardTitle	-
27.1.2.3.3.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:FundingInformation/r:Description/r:Content (with @xml:lang = {$language})
27.1.2.3.3.2	title	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:FundingInformation/r:Description/r:Content
28	collectionModes	-
28.1	collectionMode	-
28.1.1	collectionModeType	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/dc:DataCollection/dc:CollectionEvent/-dc:ModeofCollection/dc:TypeofModeofCollection (with @codeListName="collectionModeType")
28.1.2	collectionModesFree	-

No.	XSD-element (da|ra 4.0)	DDI 3.2
28.1.2.1	collectionModeFree	-
28.1.2.1.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/dc:DataCollection/dc:CollectionEvent/-dc:ModeOfCollection/r:Description/r:Content (with @xml:lang = {$language})
28.1.2.1.2	freetext	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/dc:DataCollection/dc:CollectionEvent/-dc:ModeOfCollection/r:Description/r:Content
29	dataSets	-
29.1.	dataSet	-
29.1.2	unitType	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:AnalysisUnit (with codeListName="unitType")
29.1.3	numberUnits	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/pi:PhysicalInstance/pi:GrossFileStructure/pi:CaseQuantity
29.1.4	numberVariables	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/l:LogicalProduct/l:DataRelationship/l:LogicalRecord (with @VariableQuantity)
29.1.5	dataTypes	-
29.1.5.1	dataType	-
29.1.5.1.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/l:LogicalProduct (with @xml:lang = {$language})
29.1.5.1.2	freetext	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:KindOfData
29.1.6	files	-
29.1.6.1	file	-
29.1.6.1.1	name	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit//l:LogicalProduct/r:OtherMaterial/r:Citation/r:Title/r:String
29.1.6.1.2	format	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/a:Archive/a:ArchiveSpecific/a:Item/a:ItemFormat
29.1.6.1.3	size	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/l:LogicalProduct/r:Note/r:TypeOfNote (mit @codeListName="TypeOfNote"="FileSize") + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/l:LogicalProd-uct/r:Note/r:Relationship/r:RelatedToReference (Here:ID of LogicalProduct (dataset)) + r:NoteContent/r:Content= 3MB

No.	XSD-element (da|ra 4.0)	DDI 3.2
29.1.6.1.4	fingerprint	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/pi:Physica- ca- lInstance/pi:Datafingerprint/pi:DigitalFingerprintValue + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/pi:Phyis- icalInstance/r:RecordLayoutReference/r:TypeOfObject (mit ID von VariableScheme um Verbindung zum Datensatz zu erhalten)
29.1.6.1.5	fingerprintMethod	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/pi:Phyis- icalInstance/pi:DataFingerprint/pi:AlgorithmSpecification
30	notes	-
30.1	note	-
30.1.1	language	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Note/r:NoteContent/r:Content (with @xml:lang = {$language})
30.1.2	text	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:TypeOfNote (with @codeListName=”TypeOfNote”=”Text”) + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Note/r:NoteContent/r:Content + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:Note/r:Relationship/r:RelatedToReference/r:TypeOfObject (here ID of the resource the remark is about)
31	relations	-
31.1	relation	-
31.1.1	identifier	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:UserID = here ID of the related resource

No.	XSD-element (da|ra 4.0)	DDI 3.2
31.1.2	identifierType	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:UserID (with @typeOfUserID)
31.1.3	relationType	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:TypeOfMaterial (with @codeListName=relationType) = IsNewVersionOf + ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Relationship/r:RelatedToReference/r:TypeOfObject ("OtherMaterial")
31.1.4	resourceType	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:TypeOfMaterial (with @codeListName=resourceType) = Dataset
31.1.5	relatedMetadataSchema	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/dc:isFormatOf=DDI-C
31.1.6	schemaType	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/dc:type=XSD
31.1.7	schemaURI	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:ExternalURNReference = http://www.ddialliance.org/Specification/DDI-Codebook/2.5/XMLSchema/codebook.xsd/schemaURI
32	publications	-
32.1	publication	-
32.1.1	structuredPublication	-
32.1.1.1	documentType	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:TypeOfMaterial (with @codeListName="documentType")
32.1.1.2	authorsEditors	-
32.1.1.2.1	authorEditor	-
32.1.1.2.1.1	author	-
32.1.1.2.1.1.1	firstName	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/r:Creator/r:CreatorName/r:String
32.1.1.2.1.1.2	middleName	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/r:Creator/r:CreatorName/r:String
32.1.1.2.1.1.3	lastName	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/r:Creator/r:CreatorName/r:String
32.1.1.2.1.2	editor	-
32.1.1.2.1.2.1	name	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/dc:modified

No.	XSD-element (da|ra 4.0)	DDI 3.2
32.1.1.3	title	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/r:Title/r:String
32.1.1.4	year	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/r:PublicationDate/r:SimpleDate
32.1.1.5	publisher	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/r:Publisher/r:PublisherName/r:String
32.1.1.6	places	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/dc:spatial
32.1.1.7	journal	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/dc:source
32.1.1.8	volume	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/dc:extent
32.1.1.9	issue	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/dc:issued
32.1.1.10	anthology	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/dc:subject
32.1.1.11	pages	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/dc:extent
32.1.1.12	isbn	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/r:InternationalIdentifier/r:IdentifierContent
32.1.1.13	ISSNs	-
32.1.1.13.1	ISSN	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/r:InternationalIdentifier/r:IdentifierContent
32.1.1.14	PIDs	-
32.1.1.14.1	PID	-
32.1.1.14.1.1	ID	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:UserID
32.1.1.14.1.2	pidType	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:UserID (with @typeOfUserID)
32.1.2	unstructuredPublication	-
32.1.2.1	freetext	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:Citation/r:Title/r:String

No.	XSD-element (da|ra 4.0)	DDI 3.2
32.1.2.2	PIDs	-
32.1.2.2.1	PID	-
32.1.2.2.1.1	ID	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:UserID
32.1.2.2.1.2	pidType	ddi:DDIInstance/g:Group/g:Subgroup/s:StudyUnit/r:OtherMaterial/r:UserID (with @typeOfUserID)