

Open Citation: Definition

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Preamble

The key words “MUST” and “MAY” in this document are to be interpreted as described in [Request For Comments 2119](#). In particular:

- **MUST**: this word mean that the definition is an absolute requirement of the specification;
- **MAY**: this word mean that an item is truly optional. One vendor may choose to include the item because a particular marketplace requires it or because the vendor feels that it enhances the product while another vendor may omit the same item. An implementation which does not include a particular option **MUST** be prepared to interoperate with another implementation which does include the option, though perhaps with reduced functionality. In the same vein an implementation which does include a particular option **MUST** be prepared to interoperate with another implementation which does not include the option (except, of course, for the feature the option provides).

Preliminaries

A *bibliographic citation* is a conceptual directional link from a citing entity to a cited entity, for the purpose of acknowledging or ascribing credit for the contribution made by the author(s) of the cited entity. The citing and cited entities may be scholarly publications, on-line documents, blog posts, datasets, or any other authored entities capable of giving or receiving citations.

A citation is created by a performative act of making a citation, typically by the inclusion of a bibliographic reference in the reference list of the citing entity or in one of its footnotes, or by the inclusion within the citing entity of a link, in the form of an HTTP Uniform Resource Locator (URL), to a resource on the World Wide Web. While the act of citation by the author may be the work of a moment, the citation itself, once the citing work is published, becomes an enduring component of the academic ecosystem.

Citations play a major part in knitting together independent works of scholarship into a global endeavour, and analyses of citations can both reveal how scholarly knowledge develops over time and also be used to assess scholars' influence and make wise decisions about research investment.

A citation can be:

- **directly derived** by looking at the reference within the citing entity;
- **derived** by querying a database containing bibliographic information about the citing and/or cited entity, such as [Crossref](#), if the metadata for such an entity includes details of its outgoing references or of its incoming citation links; or
- **retrieved** from a database of citation information (a citation index), which will typically contain a definition of the citation itself, information about the citing and the cited entity, and associated metadata.

Within such a citation index, the citation may either be defined as a **relationship** between the citing and cited entities, as when using the property [cito:cites](#) in the [OpenCitations Corpus](#) or the property [cites \[P2860\]](#) in [Wikidata](#), or may be defined explicitly as a **first-class data entity** with its own properties, as in the as described in the [OpenCitations Data Model](#) (via the class [cito:Citation](#)).

In either case, the *basic metadata* for the citing and the cited entity need to be made available, i.e. sufficient information to create or retrieve textual bibliographic references for each of the entities.

Definition of an open citation

A bibliographic citation is an **open citation** when the data needed to define the citation are freely available, downloadable and reusable.

Specifically, such data MUST be compliant with the 'SSO Principles' introduced by the [Initiative for Open Citations](#), namely that such data MUST be:

- **Structured** – expressed in one or more machine-readable formats;
- **Separate** – available without the need to access the source bibliographic entity (e.g. the article or book) in which the citation is defined; and
- **Open** – freely accessible and reusable without restrictions, for example by publication under the [CC0 1.0 Universal waiver/license](#).

Additionally two further principles MUST hold for the citing and cited entities. If the citation is to be an open citation, the citing and cited entities must be:

- **Identifiable** – the entities linked by an open citation MUST be clearly identified by using a specific persistent identifier scheme (e.g. a DOI) or a URL; and
- **Available** – it MUST be possible by resolving their identifiers to obtain the *basic metadata* of both the entities, sufficient to create or retrieve textual bibliographic references for each of them.

All such basic entity metadata MUST follow the same SSO principles highlighted above for the citation data. Additional metadata MAY be available, depending upon the different databases, licenses and mechanisms employed.