Digital Object Identifier (DOI)

unique identifier and sustainable link of research outputs

Digital Object Identifier

DOIs are persistent identifiers to uniquely and permanently identify physical, digital and abstract objects following international standards (ISO 26324).

DOIs facilitate sustainable linking and traceability of digital objects in the world wide web ⟹

DOI is an international standard and is primarily used in scientific, professional and regulatory contexts:

⟹ journal articles, books, dissertations, research data, digital copies, AV media, official publications, software code, etc.

How DOIs work

Each DOI represents an individual alphanumeric identifier consisting of ① a prefix and ② a suffix:

① 10.5438 ⟹ static numeric identifier of the publication service provider registering the DOI
② 1dgk-1m22 ⟹ individual alphanumeric identifier of the publication

Typical presentation on web pages, in research articles or bibliographies as well as reference lists respectively:

⟹ DOI: 10.5438/1dgk-1m22 OR https://doi.org/10.5438/1dgk-1m22

Each DOI resolves an individual URL stored in the database of the International DOI Foundation.

DOI registration

International DOI Foundation (IDF)

The IDF is a membership-funded non-commercial US organization that provides the infrastructure for registering DOIs and associated metadata. The IDF is responsible for the long-term availability of the records and the resolution of the DOIs (linking of the URL). The funding members of the IDF are internationally operating DOI Registration Agencies.

DOI Registration Agencies (RAs)

The member-funded (non-commercial) or commercial RAs operate independently of the IDF and offer their DOI registration services to independent publication service providers. The most relevant RAs in the German-speaking world are:

Crossref
International, non-profit RA

DataCite
German, non-profit RA

DOI metadata

DOIs are linked to detailed bibliographic metadata:

⟹ title, author name(s), affiliation(s), persistent identifiers (DOI, ORCID, ROR), abstract, keywords, references, dates, license, etc.
⟹ URL of the publication resolved by the DOI

DOI metadata are generally CC0 licensed ⟹ (creative commons, public domain) and are reused by international publication databases ⟹ 👁 high visibility

Reference management software and platforms for researcher profiles allow easy import of metadata using DOIs:

⟹ e.g. zotero or ORCID

Advantages of using DOIs for research outputs

① clear identification and improved findability and visibility (reusage of the metadata by other platforms e.g. BASE, OpenAIRE)
② active, interoperable and sustainable link to digital works, even if the URL changes
③ simplified import of metadata into reference management software and researcher profiles (e.g. Zotero or ORCID)
④ optimized citation counting (e.g. via Crossref Cited-by) and display of alternative metrics (e.g. via Altmetric)

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