

For the monitoring of Open Access publications in the Netherlands we chose a pragmatic approach. The monitoring is limited to peer-reviewed articles. For feasibility reasons definitions may slightly deviate from existing and accepted definitions in literature¹. In a second phase definitions may become more sophisticated.

OA articles are distinguished in three types that are explained below in more detail:

1. Gold, DOAJ classified
2. Gold, not DOAJ classified OA/ Hybrid
3. Green only OA

1. Definition

The definition of Open Access peer-reviewed articles is:

Peer-reviewed article is gratis and permanently available on the website of the publisher or in a trusted repository

1.1. Peer-reviewed articles

For the definition of peer-review we follow the definition framework for scientific research as set by the General Council of the Association of Universities in the Netherlands (VSNU) on 11 June 2010 (AB VSNU meeting 207).

The specific definition on peer reviewed articles from this document is shown below.

Definition scientific publication and peer-reviewed articles:

	Definition	Explanation
1. Scientific publication	A publication by (a member or members of) staff relating to the results of scientific research aimed at the forum of researchers, published in the reporting year (x).	A focus on the target group of researchers means that a publication has specific features such as an emphasis on the research process, justification of methodology and reference to previous research results. These features can vary per discipline. In principle, a scientific publication relates to the results of the authors own scientific research designed to contribute towards increasing scientific knowledge. Exceptions to this rule include publications that relate to research performed by others but still clearly contribute towards increasing scientific knowledge (instead of solely disseminating this knowledge), such as a review article.
a) 'Refereed' article in a journal	An article that has been subject to a critical, independent review by one or more experts in the field, called "referees", who are responsible for determining whether the topic of the	If it can be argued that the journal has an extensive 'editorial board' (editorial staff), with members who are considered experts in their field and who can independently express their views (who effectively function as referees), then

¹ Examples are the definition used by the DOAJ and the definition set by the Budapest Open Access Initiative (<http://www.budapestopenaccessinitiative.org/>)

	article falls within the scope of the journal and who establish the originality, quality of the research, clarity of presentation etc.	an article can be regarded as 'refereed' If it is unclear whether an article is 'refereed' in accordance with the above description, or if there are doubts as to the independence of the referee process, the article is classed as publication type b.
b) 'Non-refereed' article in a journal	An article that has not been subject to a critical review as referred to under a.	

1.2. Gratis and permanent

- With 'Gratis' we mean that access to the article is "for zero price". The user doesn't have to pay to read the article.
We deliberately do not use the term 'libre' ("with little or no restriction"). Libre refers to the discussions about different kinds of Creative Commons licencing. In this first phase of monitoring Open Access in the Netherlands the decision is made to limit us to the definition 'gratis'. This choice is in line with the ambition to ensure that the results of scientific research, particularly publicly funded research, are freely available.
- Permanent; the article is permanently available on the website of the publisher
 - Articles can be published under an embargo. If so, than the article is not considered OA until the moment the embargo is lifted.
 - Articles can be published OA for a restricted period of time. When the article isn't permanently available or not gratis available then it is not considered OA.

1.3. Excluding preprints

We consider it impossible to establish a valid registration of preprints because they cannot be defined within one standard. Also the validity and quality of the data cannot be guaranteed. Therefore we exclude preprints from our measurement.

2. Classification of different types of OA

OA articles are distinguished in three types that are explained below in more detail. These three types are developed in collaboration between experts from all Dutch universities (librarians, (system) administrations and policy advisors). The classification is largely based on the possibility to differentiate between these types. The way these specifications are registered played an important role. OA is differentiated in:

Category A	Gold, DOAJ classified OA	An OA article in an OA journal listed in the DOAJ
Category B	Gold, not DOAJ classified OA/ Hybrid	An OA article in a closed/restricted journal or a journal not listed in the DOAJ
Category C	Green only OA	Article is only OA via a trusted repository

2.1. Gold, DOAJ classified:

The Directory of Open Access Journals (DOAJ) is an online directory that indexes and provides access to open access, peer-reviewed journals. Changes in the DOAJ can affect the

number of OA articles presented by universities. In accordance with the end data retrieved from a CRIS each year the DOAJ is set on 31-12 of the year X (ultimo). The articles in year X (ultimo) are matched with the DOAJ list set at year X (ultimo). That match gives the count of articles category A. In most cases the DOAJ is incorporated within the CRIS and the match between articles and the DOAJ will be done automatically. If not each year X the data from the CRIS must be matched with the list of the DOAJ frozen at 31-12 of year X.

2.2. Gold, not DOAJ classified OA/Hybrid:

If an OA article is published in a journal not incorporated within the DOAJ or in a closed/restricted journal it is counted as "Gold, not DOAJ classified OA/ Hybrid". Whereas "Gold, DOAJ classified OA" articles are determined by the nature of the journal in this case the author indicates that the article is OA within a restricted or not DOAJ journal. The university has to set up a control mechanism to ensure that these kinds of articles are really OA.

2.3. Green only OA:

This classification follows the entry of an article in a trusted repository. To determine repositories as 'trusted' the list presented by OpenDOAR (and used by OpenAIRE) is used, OpenDOAR is an authoritative directory of academic open access repositories. Each OpenDOAR repository has been visited by project staff to check the information that is recorded. This in-depth approach does not rely on automated analysis and gives a quality-controlled list of repositories. OpenDOAR is one of the SHERPA Services including RoMEO and JULIET. Universities can decide to register all green OA publications. For the measurement the VSNU will request just the green only peer-reviewed articles.

2.4. Toll access + embargo:

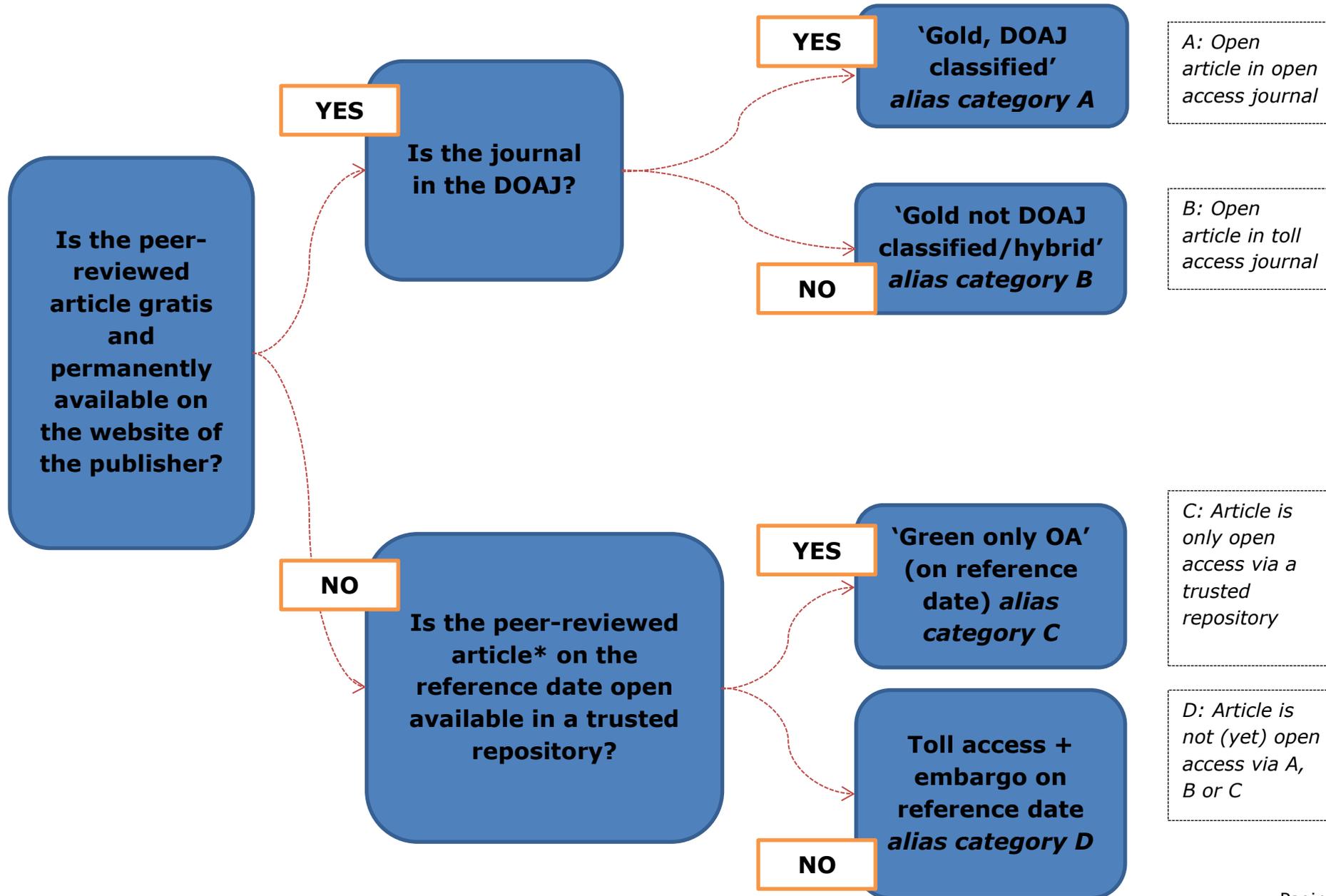
All articles that do not match one of the above criteria are considered non-OA. Special attention is needed for articles intended OA but that are published under embargo on the reference date (31-12 of year X). These articles are considered non-OA until the moment the embargo is lifted. When the embargo is lifted the article is considered OA.

In scheme 1 (see below) the differentiation between the types of OA is schematically given.

Definition framework monitoring Open Access

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Scheme 1



* Final author version, postprint, after peer-review (if applicable) or publisher version. No preprints.

3. Measurement

Basis for the monitoring of OA are the research products registered in a university CRIS. Each year (X+1) the universities provide data over the year X. These data are based on so-called "end data"; the status of the data in year X at 31-12 (ultimo).

The actual moment the data is retrieved from the CRIS does not matter as long as the data can be 'frozen' at ultimo year X. Most common is that the situation at ultimo year X is set later in the year X+1 due to administrative corrections on the data.

Universities are allowed to make corrections on the data of year X in the year X+2.

When in the CRIS the typology/ encoding of OA as described before are embedded, a query will automatically give the OA types A and B.

If the typology/encoding are not embedded than the end data have to be matched with other sources or determined by hand.

The next steps have to be taken (see scheme 2 below).

The peer-reviewed articles in the end data retrieved from the CRIS are matched consecutively to the different types of OA:

- 1) All articles are matched with the DOAJ (set ultimo year X). The articles in this subset are considered Gold, DOAJ classified articles.
- 2) The remaining subset contains OA and toll access articles. To distinguish between both types the encoding in the CRIS is used. Control mechanisms have to be set by universities in order to ensure the quality of the data.
- 3) All articles left are matched with the list of trusted repositories. When an article is OA via a trusted repository it is considered as green only OA.
- 4) The VSNU will also request a count of the toll access/non-OA publications.

The aggregation level at which the data is requested is HOOP (Higher Education and Research Plan) categories.

