

Universität Bielefeld

Arbeitsgruppe Bibliometrie

# ISSN-Matching of Gold OA Journals

(ISSN-GOLD-OA)

## Additional Information for

**Version 3.0**

April 10<sup>th</sup>, 2019

Andre Bruns  
Christopher Lenke  
Constanze Schmidt  
Niels Taubert

Bielefeld University  
Institute for Interdisciplinary Studies of Science (I<sup>2</sup>SoS)

<https://www.uni-bielefeld.de/i2sos/bibliometrie/>

## 1. General Remarks

ISSN-Gold-OA provides a matching list of ISSN for Gold Open Access (OA) journals. The intention was to compile a list that is as complete as possible by using different data sources that are free of cost. The dataset can help to clear various ISSN-related issues in bibliometric studies on Gold OA.

This documentation serves as a record for the second update (ISSN-Gold-OA 3.0) of the initial ISSN-Gold-OA list that was compiled from January to March 2019. It includes information about the changes that have been made since the first update (ISSN-Gold-OA 2.0) of the initial matching list but does not replace the original documentation (<https://pub.uni-bielefeld.de/data/2906347>), which provides a detailed description of each field of the list, and the additional information for the 2.0 version (<https://pub.uni-bielefeld.de/record/2913654>).

### Data Sources

The *Directory of Open Access Journals* (DOAJ<sup>1</sup>) is the most popular source for determining the OA-status of journals. Up to now the vast majority of bibliometric studies on Gold OA solely rely on DOAJ as a source. However, earlier analyses have shown that DOAJ is far from being complete. To overcome shortcomings in coverage, additional information regarding the OA-status of journals were used from the three following sources: PubMed Central (PMC<sup>2</sup>), OpenAPC (OAPC<sup>3</sup>) and the Directory of Open Access Scholarly Resources (ROAD<sup>4</sup>). Furthermore, ISSN-L<sup>5</sup> was used to attribute different ISSNs to unique journal entities. Table 1 shows the data sources

---

<sup>1</sup> <https://doaj.org/> (accessed: 10.01.2019)

<sup>2</sup> <https://www.ncbi.nlm.nih.gov/pmc/journals/> (accessed 10.01.2019)

<sup>3</sup> <https://github.com/OpenAPC> (accessed 10.01.2019)

<sup>4</sup> <https://www.issn.org/the-issn-international-is-pleased-to-introduce-road/>  
(ROAD data can be accessed after registration. Accessed 08.01.2019).

<sup>5</sup> <http://www.issn.org/services/online-services/access-to-issn-l-table/> (accessed: 09.01.2019)

together with the date of the processed version.

Source	Status
DOAJ	2019-01-10
ROAD	2019-01-09
PMC	2019-01-10
OAPC	2019-01-10
ISSN-L	2019-01-10

*Table 1: Processed versions of data sources*

## Manual data cleaning

To assure the quality of the data from the three additional sources, the Gold OA-status was manually checked for the journals included in the PMC and OAPC data bases. Due to reasons of workload, the manual checks for the journals from ROAD were limited to those which are covered by the Web of Science (WoS). In addition, journals with a new linking ISSN-L that were not part of the previous version were checked, as were journals with ISSN-L that were no longer included in the data sources. Again, checks were limited to journals covered by WoS. Non-OA journals detected by manual checking were excluded while removed journals identified as Gold OA were added to the list.

Figure 1 gives an overview of the checking procedure ('Non-OA' is defined as 'journal with a type of access other than Gold OA' and includes subscription, moving wall open access and hybrid journals.)

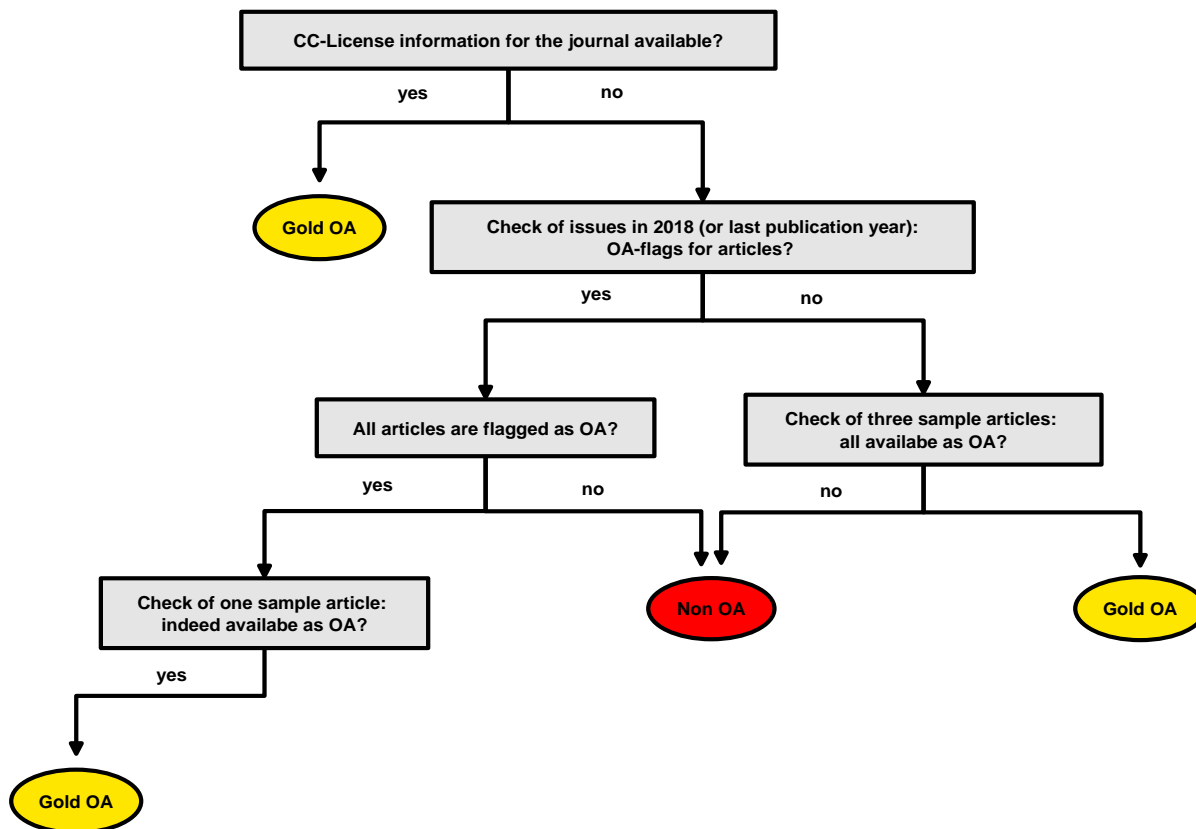


Figure 1: Manual checking procedure

- Special cases: Journals with a free html-version of articles but with a pay wall or a registration for the pdf-version were flagged as Non-OA.
- Journals with a free html-version only (and no pdf-version available) were flagged as Gold-OA.
- In case of websites that were not available or in cases of broken links, manual checks were performed once more (at least one day later). If the website was still not available, the journal was flagged as Non-OA.

The results of the manual cleaning procedure are shown in the table below.

	PMC or OPAC	ROAD (restr. to WoS)	added (restr. to WoS)	removed (restr. to WoS)
<b>Number of ISSN-L</b>	1,051	1,001	230	46
<b>OA (in %)</b>	90.2	84.52	93.91	91.3

Table 2: Results of manual checking

## 2. Statistical Overview

### Coverage of OA sources

The number of distinct Gold OA ISSN-Ls and journals (ISSN-L) in total and per OA-source as well as the respective coverage in the Web of Science (WoS) and Scopus is shown in table 3.

	# ISSN-Ls	# ISSN-Ls in WoS	# ISSN-Ls in Scopus	# Journals <sup>6</sup>	# Journals in WoS	# Journals in Scopus
<b>Total</b>	57,369	6,598	8,709	37,755	4,485	5,920
<b>ROAD</b>	47,225	4,753	6,662	32,495	3,398	4,737
<b>DOAJ</b>	18,308	4,683	5,313	12,582	3,368	3,843
<b>PMC</b>	2,622	1,502	1,932	1,794	1,053	1,364
<b>OAPC</b>	2,311	1,351	1,532	1,731	1,043	1,198

*Table 3: Number of Gold OA ISSN-Ls and Journals in OA-sources*

Each ISSN and journal can be covered in one or more of the OA-sources. Numbers were calculated after manual data cleaning. Only ~32% of all ISSN-Ls and ~33% of all journals are covered in DOAJ. If restricted to the ISSN-Ls that appear in Web of Science, DOAJ covers ~71% (Scopus: ~61%). In terms of journals: ~75% in the Web of Science and ~65% in Scopus. Thus, a substantial loss of information is supposed to affect bibliometric studies which solely rely on DOAJ.

### Gain of ROAD/PMC/OAPC against DOAJ

The number of Gold OA ISSN-Ls and journals missing in DOAJ but covered in one or more of the other sources is shown in table 4. The results reveal the potential amount of information loss if ROAD, PMC and OAPC are neglected.

<sup>6</sup> Cases with missing ISSN-L are excluded due to a lack of clarity regarding the journal entity.

	<b># ISSNs</b>	<b># ISSNs in WoS</b>	<b># ISSNs in Scopus</b>	<b># Journals</b>	<b># Journals in WoS</b>	<b># Journals in Scopus</b>
<b>Total</b>	39,061	1,915	3,396	25,173	1,117	2,077
<b>ROAD</b>	36,076	1,576	2,909	24,680	991	1,904
<b>PMC</b>	897	314	565	525	164	343
<b>OAPC</b>	771	164	262	486	95	170

*Table 4: Number of ISSN and Journals in ROAD/PMC/OAPC not in DOAJ*

## Funding acknowledgement

This work was supported by the Federal Ministry of Education and Research (BMBF) [grant number OA032].