

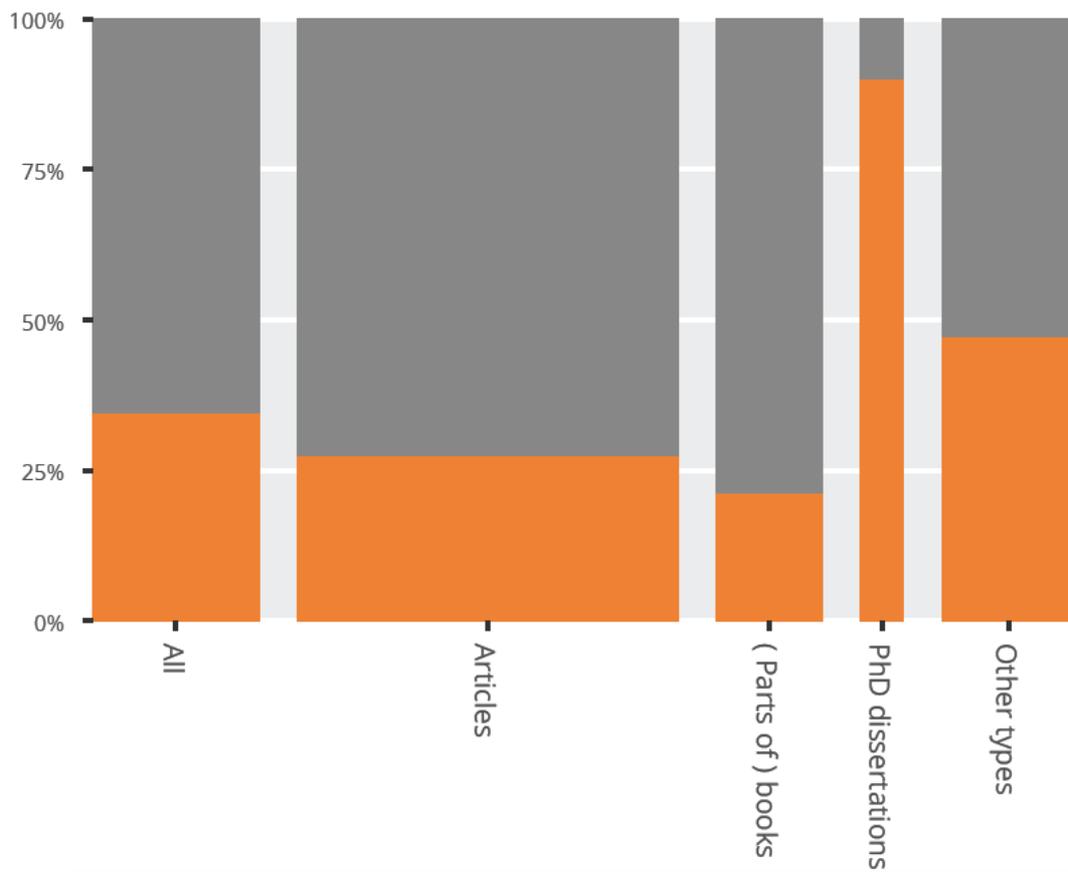
Estimating Open Access in NARCIS

Introduction

NARCIS (National Academic Research and Collaborations Information System, narcis.nl) is the national portal for information on Dutch science. Among other things, it aims to give a comprehensive overview of all publications by Dutch scientists, with the help of all the data repository managers in the Netherlands.

Our graphs show four examples of how to use NARCIS-data – combined with data from the Association of universities in the Netherlands VSNU (i.e. the number of PhD dissertations and the total amount of research output per Dutch university) – to assess the state of open access in the Netherlands.

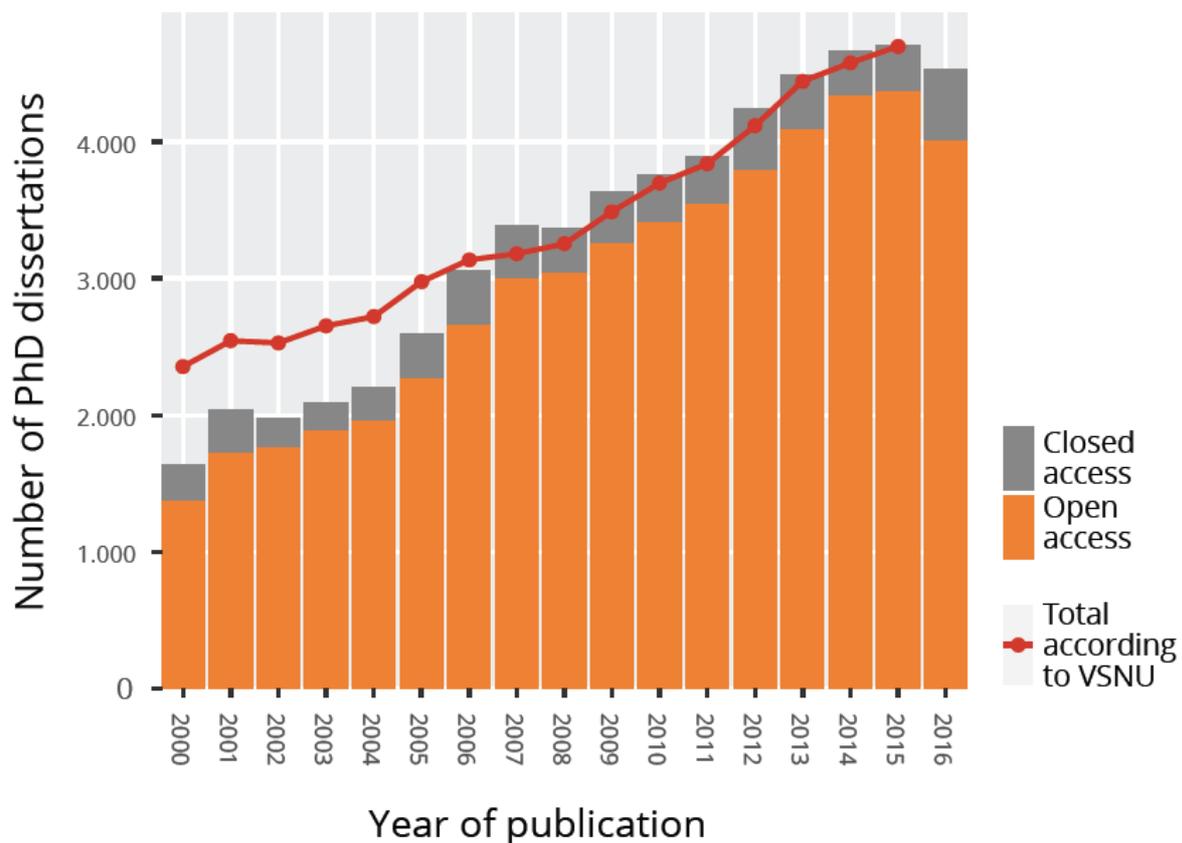
Open access for different scholarly publication types



Note: The width of the bars corresponds to the relative amount of this publication type in NARCIS.

The first figure shows the percentage of open access publications for a selection of different publication types available in NARCIS. It is evident that open access differs for the different publication types. Whereas only 27.5% of articles (which form 57.3% of the publications in NARCIS) are open access, almost all PhD dissertations are openly accessible (90%). While the open access average of other types of publications is 47.2%, there are large differences between the subcategories, ranging from 13.9% for (legal) annotations to 99.9% for preprints.

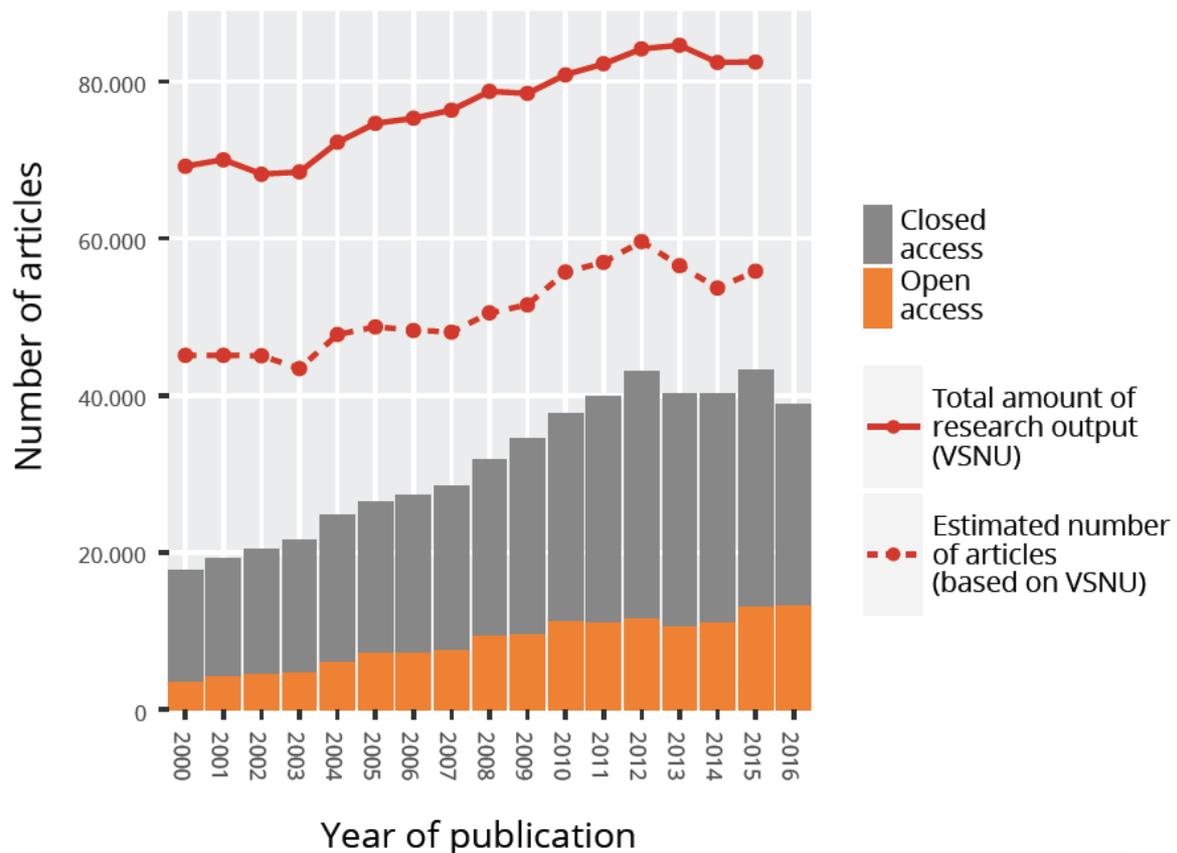
Open access of PhD dissertations



The second figure shows the number of PhD dissertations, both according to NARCIS, and according to the VSNU data. It can be seen that the numbers in NARCIS align with the numbers reported by the VSNU, suggesting that NARCIS is complete in its coverage.

For some years, the number of dissertations in NARCIS even exceeds the number reported by the VSNU. One possible explanation for this is the presence of duplicates in NARCIS. Alternatively, there may be omissions in the VSNU data as universities have to provide their data to the VSNU at a set date in time where later corrections are not possible. Additional research will be needed to assess this further.

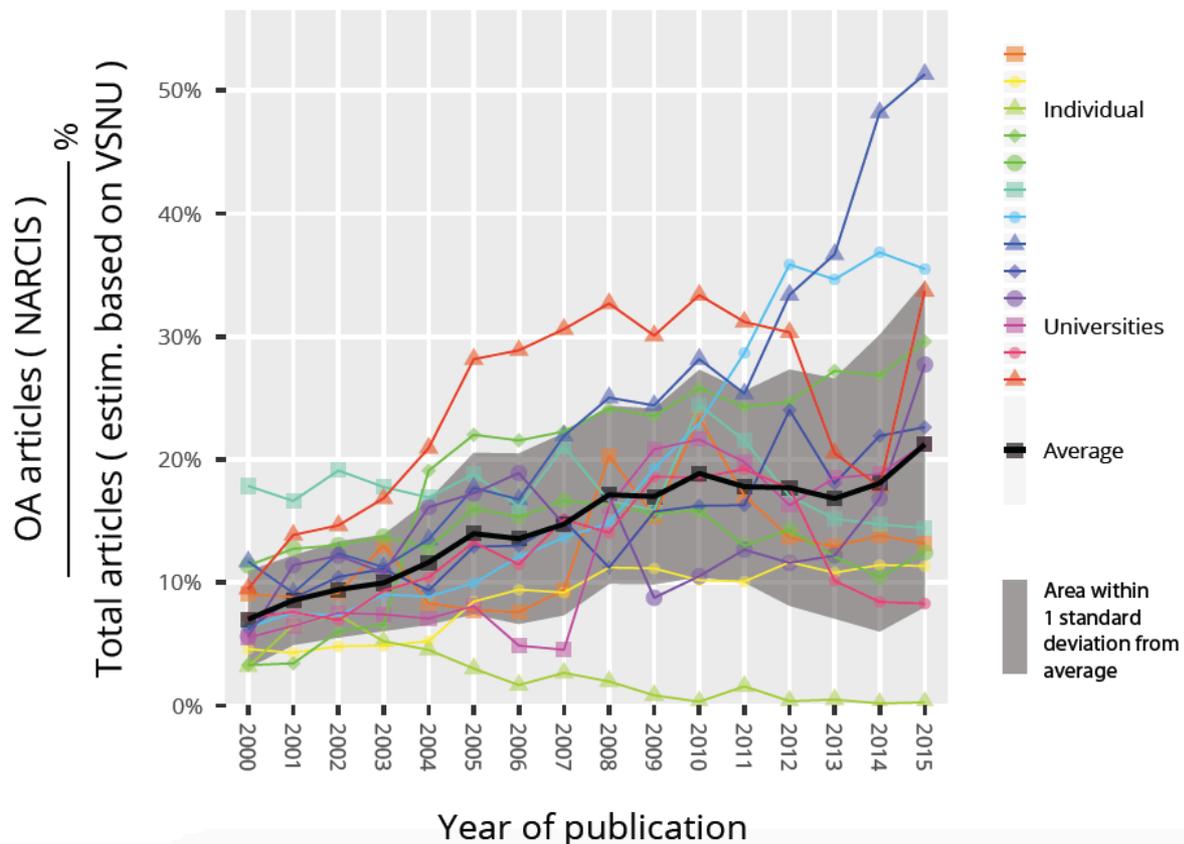
Open access of articles



In this figure, the amount of open and closed access articles is shown. As NARCIS handles different categories of scholarly publications compared to the VSNU, it is not possible to directly compare the information on articles from NARCIS with the available VSNU data. It is therefore difficult to estimate the true number of articles and thus the completeness of NARCIS. To provide an estimate of the completeness, we compared the number of articles in NARCIS with both the total amount of research output (according to the VSNU), and an estimation of the number of articles based on the VSNU data.

It can be seen that the number of articles in NARCIS is growing faster than both of the totals, which suggests NARCIS is getting closer to complete coverage. Importantly, this figure also suggests that the proportion of open access articles is growing over the past years.

Open access of articles across Dutch universities



In the last figure, the ratio between the number of open access articles and the estimate of the total number of articles (based on the VSNU data) is shown for the different Dutch universities.

Although this figure reflects an estimation rather than the true ratio of open access articles per university, it can give an impression of the individual differences between Dutch universities. While for some universities the number of open access articles in NARCIS is increasing relatively rapidly, other universities show a slower (or no) increase.

There are several potential explanations for the observed differences between universities. On the one hand, differences may reflect true deviations in the number of open access articles between universities. On the other hand, differences are also caused by deviations in the completeness of the information that the different universities (can) provide to NARCIS.

Future Outlook

NARCIS has the potential to provide a tool for assessing the status of open access in the Netherlands.

It gives an overview of all scholarly publications, including whether they are available open access. In addition, NARCIS can provide selections containing more detailed information, based on e.g. year, institute, or publication type. However, in order to provide a reliable measure of open access, complete information needs to be available. While NARCIS can provide a complete picture of open access for PhD publications, estimating open access for articles is currently more challenging. The biggest challenge that needs to be solved in the future is to ensure that NARCIS can harvest complete information on all scholarly publications from every Dutch university and other national research institutes, in a standardized interoperable format.

Notes

NARCIS data can be found on narcis.nl, tab 'publications'. The current data was retrieved July 1st, 2017. NARCIS 'publication types' are based on the semantics agreements as approved by EduStandaard.

VSNU data was gathered from http://www.vsnu.nl/nl_NL/feiten-en-cijfers.html. Data from 2016 was not yet available.

The 'estimated number of articles' in graph 3 and 4 was estimated by calculating the ratio of articles in NARCIS and the number of publications in NARCIS that matches the VSNU-definition of 'research output'. The VSNU numbers are multiplied by this ratio, unless this estimate gives a smaller number of articles than NARCIS, in which case we assume NARCIS is complete.

For more information, contact Emil Bode: Emil.Bode@dans.knaw.nl.



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DANS: Netherlands Institute for Permanent Access to Digital Research Resources

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Data Archiving and Networked Services (DANS)

P.O. Box 93067 | 2509 AB Den Haag
Anna van Saksenlaan 51 | 2593 HW Den Haag
+31 70 349 44 50
info@dans.knaw.nl | dans.knaw.nl

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Driven by data