Research Metrics Part 2- Workbook

Finding a database

For many of the exercises you will need to find a database in SOLO and use it to explore Metrics tools. Use the following instructions to find a database.

1. Open SOLO (solo.bodleian.ox.ac.uk) and sign-in with your SSO.
2. Using the search box on SOLO, search for the name of the database requested in the exercise
    - **Web of Science Core Collection**
    - **Scopus**
    - **Dimensions**
3. Click the green **Online access** link from the SOLO record for the database.
4. On the next screen that appears click **'Link to Database'.** This should load the homepage of the database in your browser.

Activity A – Contextualised Article Metrics

For this activity you will be split into 2 groups. One group will investigate **Web of Science (WoS) Core Collection** and the other group will investigate **Scopus**. After the session is over, we encourage you to experiment with the metrics tool you didn't use today.

Group 1 – Web of Science (WoS)

Questions

1. How many times has the deep learning algorithm paper been cited in WoS Core Collection?
2. What is that (Q1) telling you about this paper compared to other similar papers? (in terms of citation numbers)
3. Find the metrics that might help contextualise how highly cited this paper is compared to others. Can you find out the difference between what these metrics are telling you?

Instructions

Follow these instructions to find the answers.

Step 1. Access Web of Science via SOLO.

Step 2. In the default **Document** search section, click on **All Fields to** open a drop-down menu and select **Title**.

Step 3. Into the search box, type **A deep learning algorithm using CT images to screen for Corona virus disease (COVID-19)**.

Step 4. Click on the purple **Search** button.

Step 5. The following paper should appear in your search results - A deep learning algorithm using CT images to screen for Corona virus disease (COVID-19) by Wang S. (2021) European Radiology, 31(8), pp. 6096-6104

Step 6. Click on the paper's title to open the full record in WoS.

Step 7. Look at the right of the screen and find the **Citation Network** box.

Step 8. Answer question 1 - **How many times has the deep learning algorithm paper been cited in WoS Core Collection?**

Step 9. Answer question 2 - **What is that telling you about this paper compared to other similar papers? (in terms of citation numbers)**

Step 10. Answer question 3 - **Find the metrics that might help contextualise how highly cited this paper is compared to others. Can you find out the difference between what these metrics are telling you?**

Group 2 - Scopus

Questions

1. How many times has the deep learning algorithm paper been cited?

2. What does the FWCI value stand for?

3. How does the value of the FWCI for the given paper contextualise the paper? Is it more or less cited than would be expected?

Instructions

Follow these instructions to find the answers.

Step 1. Access SCOPUS via SOLO.

Step 2. On the main search screen, click on **Search Within** to open a drop-down menu click on **Article Title**.

Step 3. Into the search box, type **A deep learning algorithm using CT images to screen for Corona virus disease (COVID-19)**.

Step 4. Click on the blue **Search** button.

Step 5. In your results list you should see the following article - A deep learning algorithm using CT images to screen for Corona virus disease (COVID-19) by Wang S. (2021) European Radiology, 31(8), pp. 6096-6104

Step 6. Click on the article's title to open the full record in Scopus.

Step 7. Look at the grey box on the right of the screen, using the information at the top of this box.

Step 8. Answer question 1 – **How many times has the deep learning algorithm paper been cited?**

Step 9. Scroll down the page until you reach the list of metrics just below the names and affiliations of the paper's authors.

Step 10. Find the **FWCI** in the metrics section.

Step 11. Answer question 2 – **What does the FWCI value stand for?**

Step 12. Answer question 3 – **How does the value of the FWCI for the given paper contextualise the paper?**

Activity B – Free Sources of Article Citation Data

Dimensions

Dimensions provides online attention data with its own metrics and the Altmetric doughnut. You can browse dimensions by subject categories. We only have access to the free version of Dimensions so searching options are more limited. To use Dimensions, you will need to set up a free account with the database.

Questions

1. Looking at the top entries for papers in the heritage, archives and museums category, do all these papers seem to clearly relate to this subject area?

2. Is the article 'A definition of cultural heritage…' receiving more interest currently than might be expected?

Instructions

Follow these instructions to find the answers.

Step 1. Access Dimensions via SOLO.

Step 2. Click on the **Register for Free** button on the right of the page. Fill out the account creation form and then use your new account to log into Dimensions.

Step 3. Look in the left-hand panel of the Dimensions search screen under the **Filters** and find the **Research Categories** filter.

Step 4. Click on the **Research Categories** filter to open a set of two further options.

Step 5. Hover your mouse pointer over the option for **Fields of Research**. You will see a link to **browse** appear. Click this **browse** link.

Step 6. You will now see a complete list of Fields of Research (FoR) that Dimensions uses to categorize publications.

Step 7. Scroll down the list to find **43 History, Heritage and Archaeology.** Under this broad field, click on the narrower **4302 Heritage, Archive and Museum Studies** category.

Step 8. A list of publications belonging to this category will now be loaded.

Step 9. Using the **Sort by** option at the top of the results list, change the sorting order to **Citations** instead of **Publication Date**.

Step 10. The publication with the highest number of citations in the Dimensions database will now appear at the top of the list.

Step 11. Answer question 1 - Looking at the top entries for papers in the heritage, archives and museums category, do all these papers seem to clearly relate to this subject area?

Step 12. Look further down the results list until you find the following article (you will need to scroll down) –

- **A definition of cultural heritage: From the tangible to the intangible by Marilena Vecco, 2010, Journal of Cultural Heritage**

Step 13. Click on the title of the article to open the full record in Dimensions.

Step 14. On the right of the record screen, find the **Publication Metrics** section. Click on the icon for the **Dimensions Badge** to open more detailed metrics.

Step 15. You will now see more information about the metrics. Note that Dimensions gives you a narrative description and interpretation of some of these metrics.

Step 16. Answer question 2 - **Is the article 'A definition of cultural heritage…' receiving more interest currently than might be expected?**

Google Scholar

Google Scholar is a free service that can help you to find academic papers. It also provides citation counts for documents.

Questions

1. How many citations are there for the Diabetes UK evidence-based nutrition guidelines?

2. Are all the citations to the published journal version of the paper?

Instructions

Follow these instructions to find the answers.

Step 1. Go to https://scholar.google.co.uk/

Step 2. Search for **Diabetes UK evidence-based nutrition guidelines for the prevention and management of diabetes, 2018**

Step 3. You should see a record for this paper by Dyson, Kelly *et al.* published in 2018 in your search results (*be careful!* There is a similarly titled paper from 2011!)

Step 4. The citation data is at the bottom of the record.

Step 5. Answer question 1 - **How many citations are there for the Diabetes UK evidence-based nutrition guidelines?.**

Step 6. Click the **All *x* versions** link at the bottom of the Google record.

Step 7. This will show all the different versions of the article that Google Scholar is using to count citations.

Step 8. Answer question 2 - **Are all the citations to the published journal version of the paper? *Hint – have a look for the versions at Coventry*.**

Activity C – Altmetrics

Altmetrics provide a different perspective on research impact. Rather than count citations in the academic literature, they focus on where research is reported in the media, discussed on social channels or has been utilised in policy documents.

Plum Analytics Metrics on Scopus

Questions

1. Can you access all the data sources that underpin the altmetric data that Plum Analytics presents?

2. Can you think of any problems or issues with altmetrics?

Instructions

Follow these instructions to find the answer.

Step 1. Open Scopus via SOLO.

Step 2. Using the documents search screen on Scopus, type in some keywords related to a topic of interest to you.

Step 3. Click the blue **Search** button.

Step 4. From the results list, pick out a paper that looks relevant or interesting to you. Tip – try to avoid picking a very recent paper or one that says '*article in press*'. To help, change the results sorting option at the top of the results list to **Relevance** instead of **Date newest**. It may also help to select a paper that has several citations.

Step 5. Click the title of your chosen paper to see the full record.

Step 6. Scroll down the record until you see a set of metrics, this is directly after the paper authors and affiliation details are given.

Step 7. Click the **View all metrics** link.

Step 8. You will now see all the metrics associated with this paper, starting with the basic citation metrics with which you are now familiar.

Step 9. Scroll down until you see the section for **PlumX metrics.** This is the section containing basic altmetrics information such as the number of tweets, news mentions, policy citations etc. associated with the article. If you see nothing here, then there are not altmetrics available for the article you have selected. Try picking a different article or search Scopus again for '**The sweet life the effect of mindful chocolate consumption**'

Step 10. For more detail, click on the **View PlumX details** link.

Step 11. The screen that loads provides much more contextual information the sources of the altmetric data.

Step 12. **Have a go at exploring some of the tweets, news and policy citations.**

Step 13. Answer question 1 & 2 **- (1) Can you access all the data sources that underpin the altmetric data that Plum Analytics presents? (2) Can you think of any problems or issues with altmetrics?**

Step 14. Note that Google scholar has some additional metrics including the i10-index and an indication of how much of the author's research is publicly accessible.

Step 15. Author profiles in Google Scholar are sometimes associated with particular research areas or fields. Look on Sarah Gilbert's profile, to the right of her profile picture and you will see **Vaccines** under the author's address. To identify other top profiles in the same research area, click on **Vaccines**.

Cited Reference Searching in Web of Science

Using cited reference searching is way of more thoroughly identifying all citations of a work in the Web of Science database. Sometimes, when people cite works, they get details slightly wrong or give incomplete information. Additionally, sometimes a work may exist in several editions or in translations. Cited reference searching provides a way of identifying these variations so that you can more completely retrieve all works which cite a source you are interested in. It is a particularly useful technique for books where citations can vary more than those to journal articles. The instructions below take you through an example of using cited reference searching.

1. Access Web of Science via SOLO.
2. On the **Documents** search screen, switch to the '**Citated References**' section.

3. In this example, we are trying to find all citations to a book called 'Essential entomology' written by George McGavin.
4. In the box next to '**Cited Author**', type in **McGavin G* or MacGavin G***
5. In the box next to '**Cited Year**', type **2001-2011**.
6. Click on the purple **Search** button.
7. A list of documents matching your search criteria will appear.
8. Click on the '**Year**' column to sort the documents by year.
9. Look carefully through the list and you will see several instances of the book 'Essential Entomology', sometimes with a slightly different or miss-spelt title or year of publication (look for one that has been mistakenly recorded as 2011 instead of 2001 for instance.). Also note there is a Spanish language edition - 'Entomologia Esencial'.
10. Tick the check boxes to the left of every record you think relates to the book you are interested in.
11. Next, click the purple '**See results'** button at the top of the results list.
12. You will now see a complete list of all the records in Web of Science which cite 'Essential Entomology' by George McGavin.