What is meant by the term ‘Bibliometrics’?

• Bibliometrics is about applying quantitative methods to bibliographic data, often focussing on how many times research outputs and publications are cited.

• There are a number of limitations associated with using bibliometrics to assess the quality of research, so they are generally most useful in conjunction with other information like peer review of research.

• Bibliometrics can help with activities like:
  – Demonstrating the impact of research.
  – Looking at highly cited journals in a subject area - which can be helpful for deciding where to publish.
The limitations of bibliometrics

• Not established for all disciplines
• Citation practices vary from one discipline to another
• High number of citations does NOT imply high value or quality
• Potential manipulation, e.g. “group” citing, splitting research between multiple articles
• Coverage of sources other than journal articles can be poor
Bibliometric tools

At the University of Cumbria the main bibliometric tools at our disposal are:

- Journal Citation Reports (JCR), contained in Web of Science.
- Google Scholar.
- Publisher websites
Journal Impact Factors (JIF)

JIFs are one of the main metrics used in bibliometrics.

JIFs are created by an algorithm that produces a score based on number of citations of published items in a particular journal divided by the number of items published in that journal over a preceding two year period:

- Cites in 2018 to papers published in 2016 and 2017 = 165
- Number of papers published in 2016 and 2017 = 67
- Calculation: 165 divided by 67 = 2.463
- JIF = 2.463
Why Journal Impact Factor scores should be used with caution

Here are JIF scores for two journals:

- Journal of Criminal Justice: 3.154
- New England Journal of Medicine: 55.873

Both journals represent the title with the highest JIF in their subject category. Therefore it is essential that journals are compared like for like within the subject discipline context.
Google Scholar h5 index

Google scholar provides a journal metric as an alternative to the impact factor called the h5 index. The h5 index score takes into account productivity (paper counts) AND impact (citations) over a 5 year period.

So, an h5 score of 10 means that during the past five years a journal has published 10 articles which were each cited at least ten times (and many more articles which were cited fewer than 10 times).
Altmetrics

Altmetrics are metrics and qualitative data that are complementary to traditional, scholarly publications citation-based metrics. They can include:

- Citations on Wikipedia
- Citations in public policy documents
- Discussions on research blogs
- Mainstream media coverage
- Mentions on social networks such as Twitter.

An example is the ‘PlumX’ feature on our EBSCO databases. If you see the icon next to a result it will provide various metrics, including social media mentions.
Further support

To arrange individual support or group workshops please email:

skills@cumbria.ac.uk