Dear AOTT Readers,

In this editorial, I would like to draw your attention to the increasing number of “fake international indexes for scientific journals”. I came up with this idea when I was tasked by the Inter-Universities Council of Turkey (UAK), to work as a member of a commission for evaluating the application files of candidates who applied for associate professorship. The applicants were asked to list their publications according to the indexing status of the publishing journals. Those within the SCI, SCI-E or SSCI lists were entitled higher points while those journals listed in “other international indexes” received less points. Commission members were responsible for checking the accuracy of the classification and scoring. Unfortunately, we were not provided with a list of that “other international indexes of scientific journals”.

As the editor-in-chief of a scientific journal, I already had an idea about the available indexes. During the evaluation process, I was really surprised at the high number of “other international indexes” which I had never heard about. A simple internet search on this topic resulted in an extremely high number of available indexes, some of them having similar names. I also came across a web site where these were actually listed as “misleading or fake indexes” (https://predatoryjournals.com/metrics/).

After a thorough search and some interpretation, I ended up with a simple classification to easily compare and evaluate how to use these indexes. There are three main groups of these databases (examples are from the medical field):

1. Abstracting and indexing databases. Databases in this group are mainly used for searching articles and tracking citations. All articles published in all of these accepted journals for the covered years are included in the database. Journal selection criteria differ significantly between databases:
   a. Databases accepting journals according to an application and selection procedure:
      i. Current Contents, Web of Science and Arts & Humanities Citation Index produced by Clarivate Analytics. Based on the Web of Science database, Clarivate Analytics calculates the Journal Impact Factor (JIF), which is known as the main bibliometric score for the journals.
   ii. MEDLINE is the United States National Library of Medicine® (NLM) premier bibliographic database that contains more than 25 million references to journal articles in life sciences with a the main focus on biomedicine. PubMed (pubmed.gov) is a free online resource developed and maintained by the National Center for Biotechnology Information (NCBI) at the National Library of Medicine®. PubMed comprises more than 29 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites. Bibliometric scores are not calculated by these systems.
   b. Databases that have their own selection criteria to include journals and other peer-reviewed literature without a specific application procedure: Submission is not required, selection is performed by the database team.
      i. Scopus produced by Elsevier is a typical sample. Based on the Scopus bibliographic database, Scopus calculates the CiteScore, Leiden University's Centre for Science and Technology Studies (CWTS) calculates the Source-normalized Impact per Paper score (SNIP) and SCImago Lab calculates the SJR score.
   c. Search engines which aim to include all available journals or publications including predatory journals in their search but are not real indexes or lists: No submission is required, internet sites of journals are searched using “crawlers”.
      i. Google Scholar is the most popular example for this group. The metrics provided by Google Scholar are mainly usage statistics of journals.

2. Electronic collections of full-text, abstracting and indexing data, or other content that is provided through a publisher, aggregator, or other provider as a package.
a. Large databases owned by private companies. Scientific quality of journals is not questioned and bibliometric parameters are not used.
   i. ProQuest Databases
   ii. EBSCOhost and
   iii. OVID are three largest samples of this type.

b. Collections of publishing companies, which are not real indexes
   i. ScienceDirect is the database hosting Elsevier Journals
   ii. Springer, Taylor & Francis, Sage, Wolters Kluwer, OMICS, Bone & Joint Publishing or AVES Publishing from Turkey and many other companies are hosting their journals in their own online collections.

3. Databases for ranking, evaluating and categorizing the journals for academic evaluation and excellence. Content of the journals are not included or partially included, if provided by the publisher. The distinguishing factor among subgroups these databases is the fee charged for evaluation or inclusion:
   a. Free of charge journal databases
      i. Ulrich’s Periodicals Directory is the main database preferred by the librarians but requires a paid membership for users.
      ii. Directory of Open Access Journals (DOAJ)
      iii. Genamics™ by JournalSeek, which is known as the largest database of journals, is free to search online.
   b. Databases requesting payment for entrance or renewal of indexing or a faster evaluation process.
      i. CiteFactor: Calculates a “Journal Impact Factor” for journals in the index. Note the similarity to Journal Impact Factor (JIF) by Clarivate Analytics
      ii. Digital Online Identifier Database System (calculating the DOIJIF)
      iii. Global Impact Factor® (GIF)
      iv. International Scientific Indexing (ISI)
      v. InnoSpace - Innovative Space of Scientific Research (calculating the Innovative Scientific Journal Impact Factor (SJIF)
      vi. Index Copernicus International (calculating the ICI points)
      viii. Journals Impact Factor (JI因子)

Let us look more closely to this last group. Note the similarity of names provided by these databases to the universally accepted high-quality abstracting and indexing databases in group 1! All of these provide a bibliometric score that has a similar name to Web of Science or SCOPUS-based scores. A visit to their websites is directed to payment options after a few steps. A well-informed eye can easily distinguish these predatory indexes; however, for the ordinary, the following clues provided by https://predatoryjournals.com/metrics/ website can be helpful in identifying them:

1. The website for the metric is nontransparent and provides little information about itself such as location, management team and its experience, other company information, and the like
2. The company charges journals for inclusion in the list.
3. The values (scores) for most or all of the journals on the list increase each year.
4. The company uses Google Scholar as its database for calculating metrics (Google Scholar does not screen for quality and indexes predatory journals)
5. The metric uses the term “impact factor” in its name.
6. The methodology for calculating the value is contrived, unscientific, or unoriginal.
7. The company exists solely for the purpose of earning money from questionable journals that use the gold open-access model. The company charges the journals and assigns them a value, and then the journals use the number to help increase article submissions and therefore revenue. Alternatively, the company exists as a front for an existing publisher and assigns values to that publisher’s journals.

With the increasing number of predatory journals in academic publishing, the need for indexes accepting these journals resulted in a rapid increase of fake indexes or predatory indexes. For those individuals who determine the academic rules for academic advancement, the responsibility lies in identifying and refraining from using these predatory indexes.

Respectfully,
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AOTT Editor-in-chief