# Bipublishers
## Bibliometric Indicators for Publishers

# Methodology

This document provides detailed account of the methodology followed for the development of the BiP project. We indicate how fields and disciplines were constructed along with the data normalization process followed with the publishers. Finally, we define the indicators shown.

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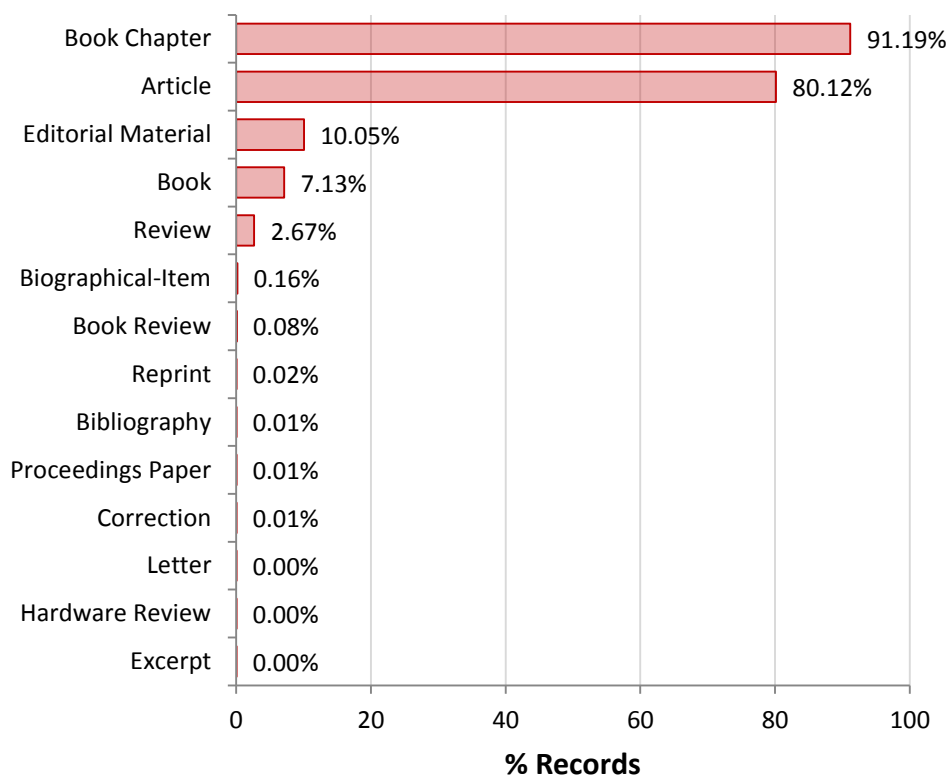Evaristo Jiménez-Contreras

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## Description of the Book Citation Index and construction of fields and disciplines

All results shown are based on the web version of the BKCI back in April 2014. The time period covered is 2009-2013. For this period 482,470 records where retrieved, distributed in 14 different document types. As it occurs with the rest of Thomson Reuters' citation indexes, a record may have more than one document type. Among others it includes the types 'book' and 'book chapter'. Only records tagged as 'book' or 'book chapter' were included in the analysis.

*Figure 2. Distribution of the Book Citation Index by document type. Time period 2009-2013.*



Regarding the construction of fields, this was made through the aggregation of Web of Science subject categories as presented in the BKCI. Unlike to what occurs with journals, books are individually assigned to one or more categories, meaning that a single publisher may have (and usually has) their output distributed among different categories. The aggregation of subject categories for fields and disciplines is available in Appendix A.

## Data processing and normalization of publishers

For each record we processed the bibliographic fields as shown in table 1. The field PU was processed separately and normalized manually. We identified 342 different publishers although 254 were finally processed.

*Table 1. Bibliographic fields processed for each record from the Book Citation Index.*

| Acronym | Name | Information |
| --- | --- | --- |
| AU | Author information | Author and affiliation data |
| UT | Accession number | Accession number as identified by Thomson Reuters' Book Citation Index (UT) |
| PT | Publication type | Publication type. Two publication types are identified in the Book Citation Index: S (serials) and B (books). Only records indexed as B were included for the calculation of the indicators. |
| BD | Bibliographic data | Title, source and series information for each record. |
| DT | Document type | 14 document types were found in the Book Citation Index (see figure 1). Only records indexed as books or book chapters were included for the calculation of the indicators. |
| AF | Affiliation | Affiliation and reprint address. |
| IN | Indicators | Number of pages and citations in Web of Science Core Collection and all Web of Science. |
| PU | Publisher | Normalized publisher name, publisher variants and addresses. |
| NR | Reference ID | ISSN or ISBN number of each record. |
| PY | Publication year | Publication year of each record. |
| WC | WoS Category | WoS categories aggregated by disciplines and fields as shown in Appendix A. |

Thomson Reuters provides a list of 499 publishers (http://wokinfo.com/mbl/publishers/), however, many errors were detected in this list. For instance, in the case of Elsevier, the following variants were found:

ACADEMIC PRESS LTD-ELSEVIER SCIENCE LTD
ELSEVIER
ELSEVIER ACADEMIC PRESS INC
ELSEVIER BUTTERWORTH-HEINEMANN
ELSEVIER NORTH HOLLAND
ELSEVIER SCIENCE BV
ELSEVIER SCIENCE LTD
ELSEVIER SCIENCE PUBLISHERS BV BIOMEDICAL DIVISION
ELSEVIER SCIENTIFIC PUBL CO
ELSEVIER/NORTH-HOLLAND
JAI-ELSEVIER LTD
JAI-ELSEVIER SCI BV
JAI-ELSEVIER SCIENCE INC
NORTH HOLLAND, ELSEVIER SCIENCE PUBL BV
PERGAMON-ELSEVIER SCIENCE LTD

To avoid this dispersion, an independent normalization process was conducted manually checking also for further information regarding the publisher (i.e., website). In this process we adopted as a criterion that if a publisher had been acquired by another one, then all its output will be assigned to the latter one. Also, we assigned publisher types, differentiating between

two types: 1) commercial and academic publishers, and 2) university presses. The user may filter according to publisher type in the results page at the website.

Next we show two examples of such normalization:

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**Example 1: Name variants assigned to Elsevier:**

- ACADEMIC PRESS LTD-ELSEVIER SCIENCE LTD
- ELSEVIER
- ELSEVIER ACADEMIC PRESS INC
- ELSEVIER BUTTERWORTH-HEINEMANN
- ELSEVIER NORTH HOLLAND
- ELSEVIER SCIENCE BV
- ELSEVIER SCIENCE LTD
- ELSEVIER SCIENCE PUBLISHERS BV BIOMEDICAL DIVISION
- ELSEVIER SCIENTIFIC PUBL CO
- GULF PROFESSIONAL PUBL
- GULF PUBL CO
- JAI-ELSEVIER LTD
- MORGAN KAUFMANN PUB INC
- NORTH HOLLAND, ELSEVIER SCIENCE PUBL BV
- PERGAMON-ELSEVIER SCIENCE LTD
- PICKERING & CHATTO PUBLISHERS

**Example 2: name variants assigned to Nottingham University Press**

- NOTTINGHAM UNIVERSITY PRESS
- NOTTINGHAM UNIV PRESS

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Publishers are subjected to changes over time, probably more frequently than journal names. In the profile of each publisher all name variants are shown in order to offer a more transparent tool to the user.

Finally a threshold of minimum 5 books or 50 book chapters has been included in order to maintain results stable. Only publishers which surpass such threshold are included in the final tables.

## 3.3 Definition of indicators

In this first edition six indicators are provided. In table 2 we include a definition for each of them. More indicators are expected to be included in future editions. The criteria followed for selecting these indicators are to show different aspects of the bibliometric performance of each publishers: output, impact and publisher profile (AI and ED).

*Table 2. Definition of indicators included*

| | Indicator | Acronym | Definition |
|---|---|---|---|
| **OUTPUT** | Total number of books | PBK | Total number of books published by a given publisher in a certain field or discipline in the last five years. Minimum threshold: 5. |
| | Total number of book chapters | PCH | Total number of book chapters published by a given publisher in a certain field or discipline in the last five years. Minimum threshold: 50. |
| **IMPACT** | Total number of citations | CIT | Total number of citations received by a given publisher in a certain field or discipline at the time of the data retrieval process. |
| | Field normalized citation score | FNCS | Normalized citations received according to the 'Crown' indicator as defined by Moed et al. (1995). It is interpreted as follows. A publisher with a FNCS of 1 has the same impact as the average of the whole population. Values above one mean that it scores above the average, while values under one underperform in comparison with the global average. |
| **PUBLISHER PROFILE** | Activity index | AI | Distribution of books in a given field or discipline according to the overall output of a given publisher and in reference to the distribution of the whole Book Citation Index. If the value equals one then, the share of books as of the publisher is the same as the world average. Higher than one means more specialization in the given field. |
| | Percentage of edited items | ED | Share of book chapters which belong to edited books from the total number of book chapters published by a given publisher in a certain field or discipline in the last five years. |