

# Early insights of Emerging Sources Citation Index (ESCI): a bibliometrics analysis and overlap mapping method

## Background

With the rapid development of advanced science and technology, new journals emerge in large numbers. On one hand, these journals offer more valuable data source for bibliometrics scholars to accelerate research, scientific discovery and Intellectual Property innovation; on the other hand, how to pick up the peer-reviewed publications of regional importance and in emerging research fields becomes an essential issue for funders, key opinion leaders, and evaluators. Under such circumstance, Web of Science platform, as the world's most trusted citation index covering the leading scholarly literature has launched the Emerging Sources Citation Index (ESCI) on November, 2015, to extend the universe of publications included in Science Citation Index Expanded (SCI-EXPANDED), Social Sciences Citation Index (SSCI) and Arts & Humanities Citation Index (A&HCI). This new powerful tool offers an access for researchers to recognize emerging fields and regionally important journals and carry out more research assessment and analysis. Approximately 1500 journals are available at launch and more titles have been adding weekly through 2016 (approximately 3438 journals are listed on April, 2016).

## Propose

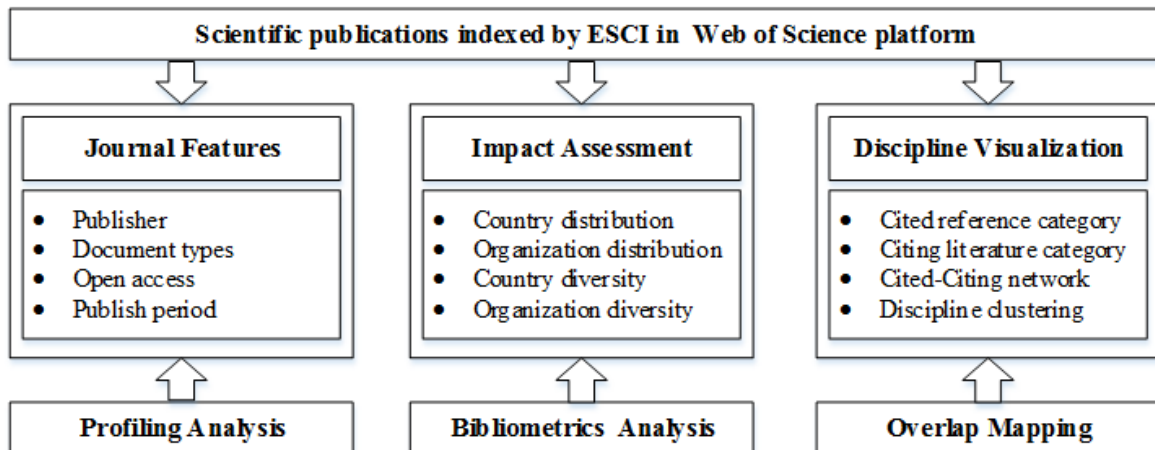
According to the descriptions from Thomson Reuters, the ESCI is aimed to provide more data to support research assessment and analysis, cover more local content with significant regional importance and discover emerging trends and scientific developments beyond the high impact literature. As an emerging citation index, ESCI remains large space for researching. We want to carry out our study in the following three aspects:

- (1) Conduct the research profiling of the journals indexed in ESCI to explore publish activity characteristics;
- (2) Evaluate the influence of the journals indexed in ESCI in accelerating regional communication and expanding global collaboration;
- (3) Visualize the discipline distributions of the publications indexed in ESCI, especially in the emerging fields.

## Framework and Data

Corresponded to our research proposes, this study apply research profiling to reveal the ESCI journal characteristics, conduct bibliometrics analysis to analyze the influence of journals and use overlap mapping to visualize the discipline distribution. The framework of this paper is shown as in Figure 1.

Figure 1. The framework of this study



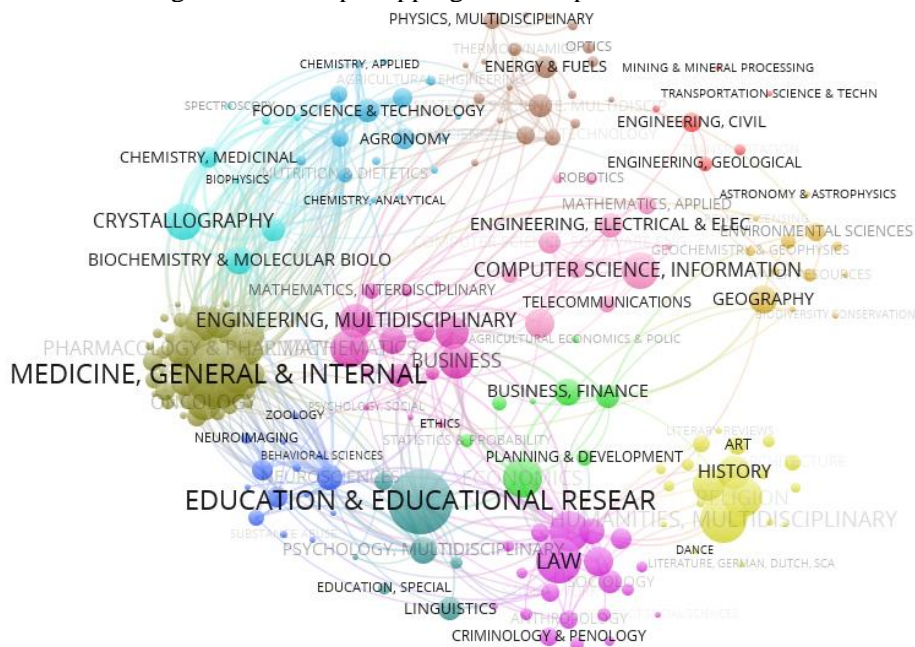
The publications published in 2015 are retrieved from ESCI in Web of Science on April 20, 2015, ultimately, 87065 records are obtained.

### Findings

Based on the journal profiling analysis, we obtain some interesting facts: 65926 articles and 4230 reviews papers are included in ESCI, occupying 75.72% and 4.86% of all publications respectively; Routledge Journal, Elsevier Science BV and Wiley-Blackwell are leading publishers; 35,855 publications (51.11%) are open access records in ESCI, while the percentage in SCIE is 14.74% (206,209 records of 1,399,125 records), 11.23% (23,044 records of 205,233 records) in SSCI and 5.26% (2,411 records of 45,823 records) in A&HCI; More than 60% of these journals are published quarterly, semiannually and bimonthly, and about 10% of journals' publishing frequency is irregular.

When take the publication country into consideration, English-speaking countries have great advantage over than other countries, India and European countries make a good performance. China, ranking in the 2<sup>nd</sup> of SCIE publications, rank in 6<sup>th</sup> in ESCI, which mainly due to few Chinese journals are selected as the ESCI-index source and less attentions are paid to such non-traditional index (SCIE & SSCI) journals. From the viewpoint of Web of Science category (WCs), General & Internal Medicine and Education & Educational Research are most remarkable categories. In addition, some WCs in social science discipline are notable in ESCI publications. We cluster all WCs into 13 disciplines based on analyzing the correlation among the citations and references to each other. The scientific overlap mapping of ESCI publications in 2015 is presented in Figure 1.

Figure 1. Overlap mapping of ESCI publications in 2015.



### Conclusion and Discussion

Journals in ESCI have passed an initial editorial evaluation and can continue to be considered for inclusion in products such as SCIE, SSCI, and A&HCI, which have rigorous evaluation processes and selection criteria. ESCI present a positive effective on expending research assessment and expediting scientific collaboration. However, it still cannot bring much attempt to promoting the inferior role of non-English countries and regions. Furthermore, how to balance the journal selection of different research domains and then facilitate cross-disciplinary research still need further efforts.