Visualizing Value of Library Collections Relative to the University Teaching and Research Enterprise
An Application of the CDL Journal Weighted Value Algorithm by Three BTAA Libraries

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Opportunity

The Big Ten Academic Alliance (BTAA) purchased a subset of the Clarivate Web of Science dataset:

* articles *authored* by OSU / UMN / UWI
* articles *cited* by OSU / UMN / UWI

The authors are from 3 of the 14 schools in BTAA
Research questions

1. How many BTAA schools subscribe to each journal?

2. What journals do BTAA faculty publish in? cite? download?

3. Do authorship / citation rates vary widely by subject?

4. Do 20% of the journals represent 80% of total downloads?

5. How does a publisher perform relative to all titles in a subject?
Data model

1. Web of Science XML dataset (2015-17)
2. COUNTER version 4.0 downloads (2015-17)
3. Holdings (link resolver access to journal titles)
4. Table 3, *Library Journal* 2018 Periodicals Price Survey
5. Broad LJ Subject headings

Tableau joins for 1-5
Demonstration

**Subject/Title Dashboard**
Title-specific downloads / authorships / citations (w/ 3 year trend graphs), resulting weighted CDL score, and # of subscribing BTAA schools

**Publisher Dashboard**
Performance of a publisher’s package of titles by subject, in relation to the performance of all titles in a subject

**Subject Dashboard**
Decision-making matrix for all subscribed titles by subject w/in broad discipline, displaying high / low authorships vs. high / low citations)

**Summary Dashboard**
Publishers sortable by # of titles with 80% of downloads or 20% of downloads
Javma-journal of the American Veterinary Medical Association

SF-601, 3 BTAA schools subscribe to this title; BTAA authors published 85 articles between 2015-2017.

**Weighted Score**

91

**Three-year trend**

- 54,591 downloads
- 85 articles authored
- 1,166 citations

[Click to select filters]

[View all titles in category]
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<th>Publisher</th>
<th>Total # of Titles</th>
<th># Titles with 20% of Downloads</th>
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**Bottom 20 Publishers**

**Top 20 Publishers**
Discussion

**CDL score** – a number combining a title’s download, articles authored, and citation metrics – simplifies the comparison of titles, publishers, and subjects.

A **dashboard** acknowledges differences in disciplinary research practices and gives subject coordinators the means to analyze their collections in depth.

Since a minority of titles usually generate the majority of downloads, focus on adding / removing titles by **subject** rather than by publisher. The following subjects may be advantageous for collective purchase:

1. Biology  
2. Physics  
3. Physiology  
4. Chemistry  
5. Surgery  
6. Medicine  
7. Psychiatry & Mental Health  
8. Oncology  
9. Business & Economics  
10. Psychology

Robust **data visualization software** aids the analysis of large datasets (e.g., reaffirms the importance of psychology journals within Social Sciences).

Tableau dashboards are available upon request to BTAA research libraries.