The power of analytics from CRIS systems

CRIS and possible services of global providers of scientific information

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Business intelligence tools

Gartner Magic Quadrant for Analytics and Business Intelligence Platforms

Figure 1: Magic Quadrant for Analytics and Business Intelligence Platforms

Source: Gartner (February 2021)
Business intelligence tools

- Tools like InCites B&A or Journal Citation Reports use the Web of Science database, which is broad and balanced but will focus on the most impactful publications worldwide.
- Other data besides publications are also needed to assess how an institution is performing.
Benchmarking tool vs CRIS

InCites

CRIS
Data in a CRIS

Converis/Esploro

Web of Science data

Publications
Publication Metrics
Author data
Journal Metrics
Funding Opportunities
Other data

InCites
Benchmarking & Analytics
The Web of Science Publication APIs complement our suite of RESTful Web of Science APIs to provide complete publication metadata from the Web of Science.

**Publication metadata**

- Web of Science API Lite
  - Support search and data integration using limited Web of Science data re- turned as JSON or XML

- Web of Science API Expanded
  - Support search and data integration using full Web of Science data re- turned as JSON or XML

**Coverage**

- **WoS API Lite**
  - Includes the following data sources:
    - Web of Science Core Collection
    - BIOSIS family (BCI, BIOABS, BIOSIS)
    - Current Contents
    - Data Citation Index
    - Derwent Innovations Index
    - Medline
    - Zoological records (ZR)

- **WoS API Expanded**
  - Includes the following data sources:
    - Web of Science Core Collection
    - BIOSIS family (BCI, BIOABS, BIOSIS)
    - CABI
    - Current Contents
    - Data Citation Index
    - Derwent Innovations Index
    - FSTA
    - INSPEC
    - Medline
    - Regional content
    - Zoological records (ZR)

**Data fields**

- **WoS API Lite**
  - Authors, Author keywords, RID, Document type, Title, Issue, Pages, Publication date, Source title, Volume, DOI, ISBN, ISSN
- **WoS API Expanded**
  - WOS Lite fields + PMID, Times cited, Author addresses/affiliations, Grants, Publisher, Related records, citing articles, citing references, Organization enhanced, Author identifiers

**Publication metrics**

- InCites API
  - Support bibliometric analysis and integration of document-level metrics

- Web of Science Journals API
  - Support bibliometric analysis and integration of journal-level metrics

**Example use cases**

- **Library**: publication repository updates, advanced search for institute papers
- **Clarivate Converis; Symplectic Elements; Elsevier Pure; Interfolio Faculty180; Lyrasis Dspace, VIVO**
- **Research management**: benchmark, collaborations, citations, integration with CRIS
- **Research**: publication and citation analysis, network data, AI, machine learning

**API usage**

- **Queries**
  - Query for all publications using WoS advanced search field tags
  - Get cited references and citing articles
  - Get times cited counts
  - Get WoS UTs to quickly identify new publications for your collection

- **Queries**
  - Boolean AND/+, OR and NOT operators are supported, along with '*' wildcards. Queries can be filtered by values and ranges

The InCites API complements our suite of RESTful Web of Science APIs to provide complete document-level metrics from InCites.

**Example use cases**

- **Library:** publication repository updates, metrics for institute papers
- **Research management:** benchmark, collaborations, citations, integration with CRIS
- **Research:** Retrieve metrics and citation topics for bibliometrics studies

**Coverage**

**Data fields**

- Times Cited
- Document Type
- Journal Impact Factor
- Highly Cited/Hot Paper
- Collaboration indicators
  - (International, industry, International)
- Open Access type (DOAJ Gold, Other Gold, Green Published, Green Accepted, Bronze)
- Normalized metrics (Category Normalized Citation Impact (per category), Journal Normalized Citation Impact)
- Percentile per category

**Key features**

- Includes the following data sources:
  - Reliable citation indicators
  - Global evaluation schema
  - Collaboration indicators
  - Open access indicators
  - Citation Topics
  - Trend analysis
  - Institutional profiles

**API usage**

- GET metrics by institution ID endpoint
- GET metrics by UT endpoint
- Set global evaluation schema for regional context

**Queries**

- Search by WoS accession number (UT) to get document-level metrics
- See https://developer.clarivate.com/apis/incites for more information

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**Example**

**Use cases**

- **Library:**
  - publica
tion repository updates,
metrics for insti
tute papers
- **Research management:**
  - benchmark,
collaborations,
citations, integra
tion with CRIS
- **Research:**
  - Retrieve metrics and citation topics for bibliometrics studies

**InCites Benchmarking & Analytics™**

May 2021

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**InCites Benchmarking & Analytics™ | Journal Citation Reports™ | Web of Science™**

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The new Journals API complements our suite of RESTful Web of Science APIs to provide complete journal metadata and metrics from the Journal Citation Reports.

**Publication metadata**
- Web of Science API Lite
  - Support search and data integration using **limited** Web of Science data returned as JSON or XML
- Web of Science API Expanded
  - Support search and data integration using **full** Web of Science data returned as JSON or XML

**Publication metrics**
- InCites API
  - Support bibliometric analysis and integration of document-level metrics

**Journal metadata/metrics**
- Web of Science Journals API
  - Support bibliometric analysis and integration of journal-level metrics

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**Coverage**

- **21,000+** journals covered*
  - Includes the sciences (SCIE), social sciences (SSCI), and now both the arts & humanities (AHCI) and emerging sources (ESCI)

- **12,000+** have a Journal Impact Factor™ (JIF) SCIE and SSCI

*From July 2021

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**Example use cases**

- Integrate with internal systems
  - For example, to pass Journal Impact Factors (JIFs) and Journal Citation Indicators (JCIs) to journal web pages

- Bibliometric studies
  - Access and retrieve core journal metrics for entire categories of groups and journal to include in analyses

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**A new normalized journal metric**

**Journal Citation Indicator**

- Calculated for all Web of Science Core Collection journals, along with:
  - Journal name & ISSN/eISSN
  - Category and rank
  - Total cites
  - Immediacy Index
  - Journal Impact Factor™ (JIF)
  - 5-year JIF
  - JIF quartile

- Average JIF percentile
- Eigenfactor and Article Influence Score
- Cited/citing half-life
- Citable items
- Open access
- Source data counts

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**API usage**

**Queries**

- Boolean **AND**+, **OR** and **NOT** operators are supported, along with **"** wildcards. Queries can be filtered by **val**-ues and **ranges**

- **See** [https://developer.clarivate.com/apis/wos-journals](https://developer.clarivate.com/apis/wos-journals) for more information

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What can it be used for?

What can it be used for?

[Graph showing trends over time]
What can it be used for?

- Article and Journal level metrics

Documents Published per JIF Quartile per Year
How many documents have authors published in highly cited journals?

- Documents in Q1 Journals
- Documents in Q2 Journals
- Documents in Q3 Journals
- Documents in Q4 Journals
What can it be used for?

- Normalized Article and Journal level metrics
What can it be used for?

- Normalized Article and Journal level metrics
What can it be used for?

- Assessing co-authorship collaborations in VIVO – an example of visualizations based on Web of Science data
- Focusing on production, not impact
What can it be used for?

- Global and department benchmarking
- Comparing the departments of your institution on publications and metrics, either in your CRIS or in InCites, using My Organization
Conclusion

Integrations with the right data sources are crucial to ensure you have all the data you need for appropriate reporting.

They also allow you to synchronize this curated data with other systems and benefit from the synergies.
Thank you

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