Case Study:
Herzen University
Developing enhanced reporting and decision making tools with Scopus APIs

Elsevier’s Research Intelligence solutions answer the most pressing challenges researchers and research managers face, with innovative solutions that improve your ability to establish, execute and evaluate research strategy and performance.
Svetlana Morozova, Deputy Director of the Fundamental Library explains why her university chooses Scopus APIs to help inform their research strategy

“Publications in international journals with high citation metric values along with international collaboration are both a tradition, and today’s reality, making them a key goal of Herzen University. Bibliometric tools allow us to monitor data, trends in science and enable us to quickly provide relevant information to university leaders, teachers and researchers.”

Executive summary

The Herzen State Pedagogical University (Herzen University) was founded in 1797 and is one of the oldest teacher-training institutions in Russia.

For more than 10 years, the main library of the Herzen State Pedagogical University of Russia (SPUR) has been acting as a methodological support centre for the university’s researchers in their publishing activities. Providing accurate and timely responses to data and reporting requests from all parts of the university is also an essential service provided by the library.

The library utilized Scopus APIs to develop new software modules to reduce manual compiling of data tables, improve data quality and increase responsiveness to information requests.

Svetlana Morozova, Deputy Director of the Fundamental Library, states that using the Scopus APIs to quickly obtain a significant amount of bibliometric data means that her team can meet modern technological and information requirements, and thereby free qualified employees for analytical work to study the indicators obtained.
Background

Herzen University is one of the largest universities in Russia with more than 30 scientific schools. Prominent scientists, academicians of Russian and international academies work within its walls. Over 16,000 Russian and foreign students study at the university.

The university collaborates with educational and scientific organizations in more than 30 countries globally. Herzen University is among the top ten in national ratings. In addition, over the past five years it has also achieved high positions in international rankings in selected prioritized areas of scientific research, such as in the Times Higher Education (THE) University Impact Rankings, QS World University Rankings: BRICS, QS University Rankings: Emerging Europe & Central Asia and ARES.

Challenge

The university has charged the library with providing scientometric indicators upon request. These indicators are used for areas such as preparing documents for filling vacancies and analyzing employees’ scientific activities. Such requests do not have a specific schedule, may have very tight deadlines and may come from the Rector, the Vice-Rector for research, the Office of Scientific Research, the Department of Academic Secretary, heads of educational units (faculties/institutes) or directly from faculty members and staff.

Since 2018, the library has been providing data to the Vice-Rector for research for the following purposes:

- Monitoring compliance with terms of current employment contracts
- Monitoring implementation of tasks set for the university researchers in the Development Program
- Filling out external and internal reporting forms
- Performing administrative analysis and making decisions

As a result of these requests, many bespoke spreadsheets would be created, which would become obsolete as soon as they were produced, creating significant administrative burden and routine manual work.

Solution

The library made a decision to develop a database and an external reporting form (tabular), which could be used to fulfill requests at any time by any manager or university staff member and would be automatically updated with accurate information.

Working with data acquired via API requests, the library developed software composed of two components, a restricted internal data collection (adjustment) module and an external tabular output module.

Scopus APIs played a significant role in successful development of the solution by enabling:

- Accurate information on each SPUR author, including a set of accurate full name spelling options in English
- Delivery of scientometric parameters such as publication and citation counts which allowed h-index calculation.

Through the use of Scopus APIs and the software developed, the library reports that the benefits of this solution were two-fold. Through the use of Scopus APIs, library staff are able to do less manual routine work while also providing the broader university with more accurate and timely delivery of information or reporting requests.

“Prior to development of the software, librarians spent several hours manually collecting and formatting requested data.”
“We plan to expand the range of requests via API in the internal module, for example, requests for a certain period of publication activity. New external modules will also be created, for example, a visual module for analyzing data received via API.”

Conclusion

Through the use of Scopus APIs, the library has removed several hours of manual collection and formatting of data while also ensuring accuracy of author information.

The external tabular reporting module is also used by the Office of Scientific Research, Office of the Vice-Rector for Research and heads of several educational departments enabling them to receive data, test the module and provide comments and suggestions. The module will be presented at a broader meeting involving directors/deans of institutes/faculties which will result in the broader roll out and use throughout the university.

In addition to the many internal benefits, the library also presented the software package externally as part of the professional advanced vocational training program, titled: “The strategy for the effective use of electronic resources and scientometric instruments in educational and scientific activities.” The program was presented at the recent Science Online XXII conference, where it sparked the interest of heads of other university libraries.

Due to the initial success of the software, the library plans to continue developing the software modules through expanding the range of requests used and to improve the delivery and analysis tools provided.

Research and Integration

The Scopus APIs allow the integration of content and data from Scopus into external websites and applications. Scopus APIs expose curated abstracts and citation data from all scholarly journals, books and conferences indexed by Scopus.

APIs available for Scopus

- Scopus Search API
- Author Search API
- Affiliation Search API
- Author Retrieval API
- Affiliation Retrieval API
- Serial Title API
- Citation Overview API
- Abstract Retrieval API
- Abstract Citation Count API
“Scopus APIs will continue to play a significant role in helping to obtain the scientometric parameters and also for ensuring accurate information regarding Herzen University authors’ full names in English.”

— Svetlana Morozova
Deputy Director of the Fundamental Library
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