

RESEARCH DATABASES IN SERBIA & INFORMATION DISSEMINATION

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Abstract: Through a detailed review of STM and business content available in Serbia, this article depicts the value of particular databases and the impact of a tremendous influx of information into the country in recent years. The two most comprehensive databases are provided by EBSCO Publishing (EBSCO), the world's largest intermediary between publishers and libraries. EBSCO's company approach with regard to its academic databases is described. The article also examines which databases are strongest in each discipline, and covers issues such as the availability of journals most-cited, full-text formats, peer-review status, embargo periods, backfiles, and other important issues. Dissemination of, and access to, information is heightened through linking technology inherent in these research databases. The availability and customization of these links is explored. The ability of users to easily review relevant images directly from the results page is also discussed.

Introduction

Dissemination of information through full-text databases has expanded exponentially over the last few years—far more than during the previous history of these resources. With the tremendous enhancements made in recent years, a new, closer look at these scholarly databases is not only essential, but will also prove valuable to anyone facilitating or conducting research. Though the following concentrates mainly on invaluable content and linking capabilities offered through these super-databases, the power of important and improved components such as additional software functionality, usability, speed, and accessibility should not be overlooked.

Academic Search™ Premier – Extensive Coverage of STM journals, as well as Journals in the Social Sciences and Humanities

A great deal of information availability (via databases) that has been realized by researchers in Serbia (and all around the world) may be attributed to a surprisingly large quantity and quality of full-text journals in both the sciences (STM) and the humanities & social sciences (including business). Less than a decade ago, virtually no full-text physics journals were available via aggregated databases. But, as it currently stands, there are over 140 active physics journals available in PDF in EBSCO's *Academic Search™ Premier* (ASP), and this number is growing. This is but an example of only one of the many subject areas within the realm of STM that has experienced a tremendous swell of new content made available in ASP.

PDF full-text coverage in ASP is particularly strong in the biological sciences, chemistry & chemicals, computer science, education, engineering, environmental studies, history, medical sciences, philosophy, physics, politics & political science, psychology & psychiatry, religion & theology, and sociology. As one of the world's largest collections of academic full-text journals, ASP is the most-used, for-fee, online research tool in thousands of universities across dozens of countries. Only EBSCO's *Academic Search™ Complete* provides more full-text academic content.

Expanding Access to New Content

All university libraries in Serbia, Russia, Slovenia, Slovakia, and Czech Republic and many other nations in Central & Eastern Europe are accessing ASP, and the usage statistics in Serbia are quite high. In addition, the overall usage of EBSCO databases in Serbia is up nearly 10% from 2007 to 2008. In the United States, it is not uncommon for a university to spend in excess of \$2,000,000 per year on their journal subscriptions. Even with such vast collections of journal material, these libraries nearly always find it necessary to subscribe to *Academic Search* to complement their collections. For libraries in Central & Eastern Europe with often less sizable budgets, the need for such a database is paramount. The goal of full-text databases is not to replace existing subscriptions; it is to bring many new sources into the library at a reasonable cost. As depicted in the Johns Hopkins University Press publication, *portal: Libraries and the Academy*, Paula Watson, an *Academic Search* customer and Director of Electronic Information Services at the University of Illinois – Champaign/Urbana, states, “Journal cancellation is not an issue for us. We do not rely on aggregated databases to replace print or e-journal subscriptions”.² Further emphasizing the point that full-text databases are not a replacement for individual journal subscriptions, an article in *Against the Grain* offered unmistakably that these databases are, “no substitute for journal subscriptions”.³

Due in large part to the huge expansion of hard sciences content, ASP now has a print equivalent value of well over \$1,000,000 per year. In other words, if a library wanted to buy a subscription to every single journal available in full text in ASP, their cost would exceed \$1,000,000 per year. Though its availability via the World Wide Web allows the database to provide the most current information, EBSCO has tremendously expanded the backfile data available in ASP. Thus, the database provides a retrospective view of information, including

full-text coverage for many journals dating back into the 1970s, and in some cases as far back as the 1920s.

For many universities in Central & Eastern Europe, access to ASP means access to many journals which have never before been available to students and faculty. However, for several reasons, it does not represent an easy, nor practical way to replace existing journal subscriptions. For example, the most cited journals, such as *Nature*, *Journal of Chemical Physics*, etc. frequently come with embargo periods. With regard to full-text databases, an embargo means that the publisher withholds the most current full text until a specified period of time has elapsed (usually somewhere between three months and twelve months, depending on the journal). This is done to prevent existing subscribers from canceling individual journal subscriptions, but at the same time to allow non-subscribers to have some access to these journals through the database. Generally, non-subscribers find this useful because they can gain access to tens of thousands of articles (in PDF) from these critical journals. For example, while no current full-text articles are available from *Journal of Applied Physics* due to the publisher-imposed embargo period, the database does contain PDFs for more than 62,000 articles (and growing) from this highly prestigious STM journal. (Additional information on this topic, with regard to EBSCO’s practices, etc. can be found in a *Serials Review* article published in 2002.)⁴

Embargo periods are NOT applied to all journals in ASP. In fact, there are more than 1,392 active, full-text journals in ASP with no embargo at all. These publishers are relying on libraries to maintain their subscriptions to these journals. If libraries use the databases to cancel journal subscriptions to titles with or without embargoes, the publishers will remove their content from the databases. This has already happened with some smaller full-text databases produced by companies who did not alert all of their customers to the

dangers of misusing their full-text products. EBSCO has done a good job of avoiding this turmoil by informing its customers of these issues. EBSCO's website offers that, "this potential turmoil can likely be avoided if librarians make print and e-journal purchasing decisions independent of whether the full text of a journal is available in an aggregated full-text database. Proceeding in this way should result in price and content stability within aggregated databases, ensuring that end users continue to enjoy the benefits of access to these large collections of valuable data".⁵

Importance of Peer-Reviewed Content

Often those evaluating databases may look to the total number of titles in a given database, rather than the total number of quality, appropriate journals. EBSCO offers the largest full-text academic collections, but more importantly, the company's databases contain more peer-reviewed journals than any other database offered from competing firms. This is due to a fairly simple reason—EBSCO is the world's largest subscription agency and shares the core business of all academic publishers: journal subscriptions. Participation in databases represents a secondary revenue stream for publishers. Therefore, most reputable publishers are very careful in this regard and will not expose themselves to the volatility and instability associated with conducting business with aggregators that do not share a financial stake in the publisher's well-established core business. Thus, to satisfy any apprehension regarding subscription cancellations, they generally do not work with non-subscription agents in this area. Because EBSCO is the only subscription agent who is also a full-text database vendor, EBSCO experiences de facto exclusives for thousands of academic journals. In other words, due to natural market conditions, academic publishers have overwhelmingly decided that they want the exposure offered by full-text databases, while they do not want the risk associated with participating in databases marketed by compa-

nies that share no financial stake in their core business. Therefore, leading academic publishers are (by-in-large) only partnering with full-text database vendors who are also subscription agents (i.e., EBSCO). This is a tremendous asset to researchers in Serbia who have unlimited access to EBSCO's databases.

Journals defined as 'peer-reviewed' are publications which utilize a review board of experts whose role is to read all articles to decipher appropriateness. Further, these boards will edit and scrutinize content for sake of accuracy before they are eventually published. This is a unique and often lengthy process, much different than that of other (non-peer-reviewed) periodicals. As a result of this additional layer of scrutiny, articles appearing in peer-reviewed journals are considerably more reliable/appropriate for research. "The quantity of peer-reviewed, or refereed, content is a simple indication of the level of scholarly materials contained in databases. Although not all scholarly content is peer-reviewed, it is certainly a good starting point when determining the validity of an academic reference resource".⁶ These journals are not only of high quality, but also generally expensive to publish, therefore usually expensive to purchase as well. ASP is the only way for many libraries to be able to afford to bring a number of these scholarly journals into their institutions.

As of February 2009, ASP contains 3,775 full-text peer-reviewed journals. This number may not seem remarkable until it is pointed out that, as this author understands, no other competing database comes close to offering the same quantity of full-text peer-reviewed journals. As stated previously, only EBSCO's *Academic Search Complete* provides more full-text peer-reviewed content.

Prevalence of PDF Content

PDF has emerged as the overwhelmingly preferred full-text format for academic libraries in recent years. Thus, EBSCO is using PDF as

the primary full-text format for academic and business journals. With these publications, EBSCO tries as often as possible to provide a native (searchable) PDF. PDF has been selected as the standard for these publications because this format is needed to properly display scientific formulas, equations, diagrams, charts, graphs, clinical images, etc. EBSCO is offering many more journals in PDF and more native PDFs than other database vendors. Not only does PDF maintain an article as it originally appeared, but many “prefer PDF files for printing because of their image quality and because they maintain the print version’s layout”.⁷

Business Source Premier—Comprehensive Full-Text Business Content

Business Source® Premier (BSP) is one of the largest full-text business databases in the world (second only to EBSCO’s *Business Source® Complete*). As of February 2009, it contains full text for 12,192 titles. BSP contains thousands of full-text titles that are published outside the United States, with the great majority coming from three countries: United Kingdom, the Netherlands, and Germany. In addition, full-text business journals and reports are provided from Serbia, Russia, Switzerland, Belgium, France, Norway, Czech Republic, and Slovenia. EBSCO plans to continue to expand its coverage in these areas.

Though the database is continuing to gain momentum through content additions, BSP is particularly comprehensive in accounting, economics, finance, management, marketing, MIS, POM, and public administration. In fact, the only way that universities can gain institution-wide electronic access to many of the leading journals in these disciplines (including *Harvard Business Review*, which is available in PDF in the database with cumulative coverage dating back to its first issue in 1922) is via *Business Source Premier* or *Complete*.

International Coverage

Another rare, yet valuable quality attributed to both ASP and BSP is their ability to provide full-text journals (most often in PDF) for journals published outside of the United States. Most full-text databases offer very limited coverage from non-U.S. publications. As of February 2009, ASP and BSP together contain nearly 3,100 full-text journals published outside the United States, with the great majority (nearly 2,800) coming from Western Europe. There are also a number of journals available from countries in Central & Eastern Europe. Additionally, content pertinent to these countries (but not necessarily published in these countries) is also included.

Examples of full-text journals published in, or pertinent to Serbia available in EBSCO’s databases accessible to universities in Serbia include: *Forum Philosophicum*, *International Journal of Occupational Medicine & Environmental Health*, *Dialogue & Universalism*, *Country Profile – Serbia*, *OECD Economic Surveys: Serbia*, *Serbia Career Guide*, *Serbia Country Monitor*, *Serbia Country Review*, *Serbia Economic Competitiveness*, *Serbia Economic Studies* and *Serbia Quarterly Forecast Report*. This is significant because other full-text databases contain no quality sources pertinent to Serbia.

Increasing the Value and Accessibility of Content via Powerful Linking Options

The full text included in ASP and BSP provides a tremendous level of convenience to the end user, but as mentioned, not every important journal is available for EBSCO to include in the databases in full text. Thus, providing access to citation information from these titles is critical. However, users still desire the level of convenience associated with full text being readily available. Thus, EBSCO’s databases are equipped with inherent linking capabilities which allow users to link from citation-only results in the databases to the corresponding full text held elsewhere in a library’s collection. Us-

ing these linking tools (called EBSCO *SmartLinks* and *CustomLinks*), libraries can establish item level links to their collections of e-journals via EBSCOhost and CrossRef, as well as links to OPACs, inter-library loan and document delivery services, search engines, book vendors, publisher sites, and more. Additionally, users can link into EBSCOhost databases from outside sources such as OPACs, A-Z lists, meta-search engines, and bibliographic resources such as PubMed.

In addition to the full-text links mentioned above, another major benefit of the linking technology associated with EBSCOhost is its ability to generate links between various EBSCOhost databases. Libraries in Serbia have access to full-text databases via EBSCOhost as previously described, but there are a great number of popular secondary (citation-only) databases made available via EBSCOhost as well (e.g., *Inspec* and *PsycINFO*). Libraries subscribing to these databases via EBSCOhost experience the advantages of not only a common interface, but the ability to link directly from citations in these secondary databases to the corresponding full text in databases such as ASP and BSP. For example, as of February 2009, *Inspec*[®] indexes more than 450 active, full-text journals and magazines that are available in full text in ASP/BSP, and *PsycINFO*[®] indexes more than 620 active, full-text journals and magazines that are available in full text in ASP/BSP.

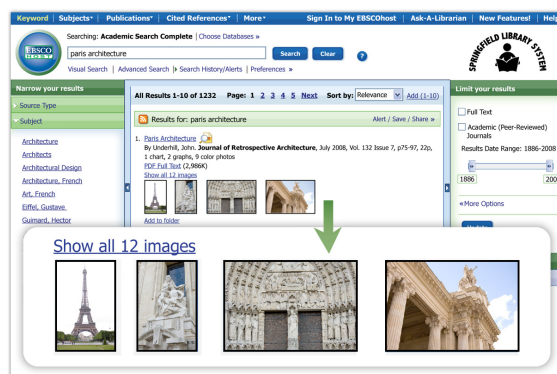
Searchable Cited References

Additional linking capability that is offered via EBSCOhost (as part of selected databases including ASP and BSP) is ‘reference linking’. Reference linking provides a powerful means for extending research by allowing users to locate additional information related to an article of interest. Also known as “reference browsing,” “reference chasing,” or “searchable citations,” this functionality lets users link directly from a particular article to other articles cited in the bibliography of the original article. It also allows

users to link directly from a particular article to other articles in the database that cite the original article. The basic principal associated with this type of linking considers that if a particular article is of interest to a researcher, then the articles cited by that same article, or that cite the article, are often of value as well.

Image Quick View—Rapid Access to the Most Relevant Images

There is no doubt that the images and other graphical content found in full-text databases can have a substantial impact on research. *Image Quick View* from EBSCO enables users greater and quicker access to this valuable information. This EBSCOhost feature adds image thumbnails to search results, allowing users to preview the graphical content from an article directly from the result list or citation display.



When the end user clicks on an image, EBSCOhost displays the title, caption, source information and illustration page number, as well as a “How to Cite” link. In addition, a rights notice explains the usage rights of each image. This feature works with charts, graphs, tables, photos, illustrations, and any other images found in full-text articles.

As the most prolific aggregator of journals and other full-text content, EBSCO is positioned to offer the highest quality and most comprehensive collection of journal images. *Image Quick View* is now available via EBSCOhost in more than sixty full-text databases (including *Academic Search*,

Business Source, *CINAHL® Plus with Full Text*, *EconLit™ with Full Text*, *MEDLINE® with Full Text*, etc.), as well as through dozens of licensed databases (e.g., *CAB Abstracts®*, *GeoRef*, *Inspec*, *PsycINFO*, and many others) via *SmartLinks*. As of January 2009, EBSCOhost provides *Image Quick View* for nearly 9,200 journals, including more than 3.75 million photos, illustrations, charts, graphs, tables, etc., and the collection will continue to grow.

Conclusion

EBSCO is dedicated to the constant improvement and development of databases and adjacent linking services through quality content and software enhancements. The company is the leading provider of scholarly databases worldwide, largely due to its success in creating internationally significant reference resources. The database content, features, and level of service & training that EBSCO provides in the region depicts the firm's commitment to offering the best possible resources for customers in Central & Eastern Europe, and all over the world.

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² Dorst, Thomas J; Brooks, Sam. "Issues Facing Academic Library Consortia and Perceptions of Members of the Illinois Digital Academic Library." *portal: Libraries and the Academy* Volume 2, No. 1 (January 2002):43-57.

³ Bull, David; Jacobs, Ian. "e-Journals, Embargoes and Other Matters: Are the Publishers Villains or not?" *Against the Grain* (November 2002):30

⁴ McElroy, Emily. "An Interview with Sam Brooks." *Serials Review* Volume 28, No. 2:142-150.

⁵ "Full Text Databases, Print Journals and Electronic Journals; Distinctly Different Products." Available at: <http://www.ebscohost.com/thisTopic.php?marketID=1&topicID=8> (Last Accessed February 18, 2009)

⁶ Brooks, Sam. "Integration of Information Resources and Collection Development Strategy." *Journal of Academic Librarianship* Volume 27, No. 4 (July 2001):316.

⁷ Slagell, Jeff. "The Good, the Bad and the Ugly: Evaluating Electronic Journals." *Computers in Libraries* Volume 21, No. 5 (May 2001):34.