THOMSON REUTERS

HIV/AIDS - Following the research dollars

October 2008

Early in 2008 Thomson Reuters received an inquiry from Science magazine's Jon Cohen, who specializes in covering AIDS/HIV research. In preparation for a feature story on the upcoming annual international conference, he requested a literature review and analysis of AIDS/HIV research during the last decade.

The 25 July 2008 issue of Science followed the HIV/AIDS money trail, reporting on how billions of HIV/AIDS research dollars have been distributed over the past 10 years, and what they have accomplished. Thomson Reuters contributed to this article by supplying insight into 123,752 HIV/AIDS-related papers and their citations.

To meet Cohen's request for a literature review and analysis of AIDS/HIV research during the last decade, we worked closely with him to design an extraction profile that was run against all indexed items for 1998-2007 (publication years). We matched this profile to title words, abstract words, author-supplied keywords and Thomson Reuters keywords plus – retrieving over 123,000 articles. We then loaded the bibliographic and citation count data into xite 7.1. This is a Thomson Reuters software application that enables users to analyze a large group of papers and to produce listings based on output and citation impact in regard to individual authors, institutions, journals, and nations.

Cohen used the database to identify influential authors, institutions, and nations. He matched these results with the author funding. These data helped him obtain a global view of AIDS/HIV research impact over the last decade, supplementing his own intimate knowledge of the field and its key players. The results he generated helped provide a quantitative, objective framework for his report. This is not the first time that Cohen, as well as many other journalists on the science and technology beat, has worked with us to obtain research insight.

In his six month study, Cohen found that the billions of research dollars have been concentrated in a few countries (often for legitimate reasons) but not necessarily in those countries with the worst epidemics. The number of people in need of anti-HIV drugs continues to climb, raising questions about whether resources can keep up with future demands.

Read the full article – with accompanying podcasts and interviews:
http://www.sciencemag.org/aids2008/

THOMSON REUTERS

Analyzing research performance at Rockefeller University

October 2008

Rockefeller University - a small US university that produces high impact research - uses University Science Indicators to track and measure its research output and impact, pinpoint emerging trends, and make the crucial decisions that determine future directions for the institution.

New York's Rockefeller University is a high-impact research powerhouse. A leading institution in biomedical research, Rockefeller has been the source for myriad scientific breakthroughs, not to mention the home for 23 Nobel Prize winners and 21 Lasker Award winners. Rockefeller's influence and reputation resonate across the globe.

But with this success comes a major challenge — quantifying the reach and impact of its research. The Rockefeller University decision makers turn to Thomson Reuters *University Science Indicators* to help meet this challenge. Covering more than 300 U.S. institutions, *University Science Indicators* enables benchmarking and ranking against peer, as well as target, institutions.

Case study: supporting decision making at Rockefeller University - see next page

CASE STUDY: *UNIVERSITY SCIENCE INDICATORS*

ROCKEFELLER UNIVERSITY

NEW YORK, NY, OCTOBER 2, 2007

RESEARCH POWERHOUSE ROCKEFELLER UNIVERSITY LOOKS TO *UNIVERSITY SCIENCE INDICATORS* DATA TO SUPPORT DECISION-MAKING, FUNDRAISING

"...WE HAVE TO BE CLEAR ABOUT WHERE WE WILL FOCUS AND HOW THESE AREAS OF RESEARCH BUILD ON ONE ANOTHER."

Case Summary:

A small university that produces high impact research, Rockefeller University needed quantitative data to demonstrate its premier position in the global research community. With *University Science Indicators*, Thomson Reuters provided the insights into research performance that allowed Rockefeller University to track and measure research output and impact, pinpoint emerging trends, and make the crucial decisions that determine the directions for the institution's future.

BACKGROUND: AN AWARD-WINNING RESEARCH POWERHOUSE

New York's Rockefeller University is a high-impact research powerhouse. A leading institution in biomedical research, Rockefeller has been the source for myriad scientific breakthroughs, not to mention the home for 23 Nobel Prize winners and 21 Lasker Award winners. Rockefeller's influence and reputation resonate across the globe.

BUSINESS ISSUE: MEASURING ACHIEVEMENT AND INFORMING DECISION-MAKING

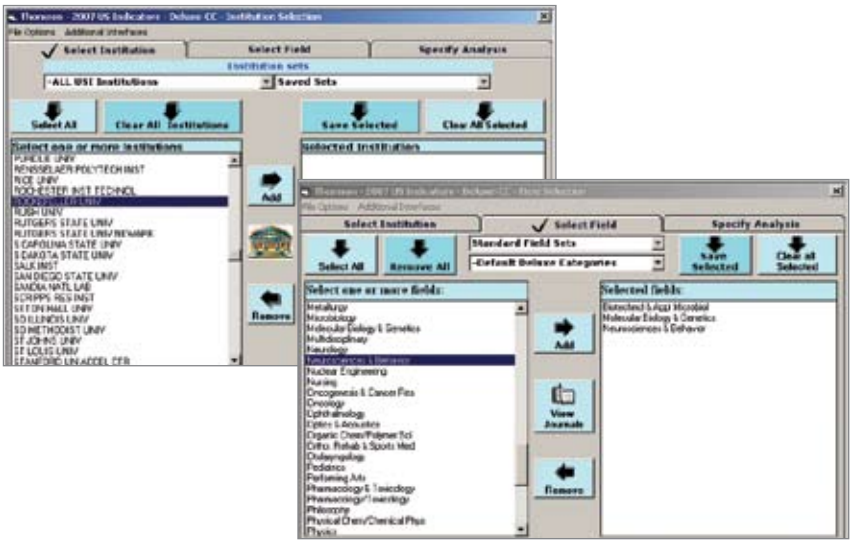
"We are a small university, but our research is very high impact," said Carol Feltes, Rockefeller University librarian. "We're known around the world as a place where extraordinary biomedical research is conducted.

But with this success comes a major challenge — quantifying the reach and impact of its research. To maintain the institution's high quality, the university's leadership team needed comprehensive data on research output and influence.

"Our administrators have to make choices," said Feltes. "Biomedical research is our focus here at Rockefeller, and within that broad field we have to be clear about where we will focus and how these areas of research build on one another."

"Our board of trustees must always consider how we are going to develop the campus — which areas are underdeveloped or under-represented, the areas in which we should be looking for new faculty members, and even the kinds of laboratories we need."

For a quantitative demonstration of the institution's research performance, the Rockefeller University decision makers turn to data from Thomson Reuter's *University Science Indicators*.



An easy-to-use interface for in-depth analysis. Analyze performance by institution, field, output, impact, field baselines, and share.

Trend graph: Institutional impact. See how institutional impact - average cites per paper - can vary over time.

Trend graph: Institutional output. Trends in publication output provide useful insights into an institution's research activity.

THE THOMSON REUTERS SOLUTION

University Science Indicators is an easy-to-use database of research performance measures for universities and research institutions. Covering more than 300 U.S. institutions, *University Science Indicators* enables benchmarking and ranking against peer, as well as target, institutions.

Based on the unique and authoritative publication and citation statistics compiled by Thomson Reuters, *University Science Indicators* contains the number of Thomson Reuters-indexed papers from each university, along with citation counts and other citation impact metrics available nowhere else.

At Rockefeller, using this insight into its research performance has become integral to the decision-making process.

University Science Indicators data inform many administrative and budgetary decisions — from equipment and facilities, to the university's staffing allocations.

Moreover, with the ability to measure research output and impact and identify emerging trends, the institution's leadership can make crucial decisions about the institution's future.

In addition to its use in decision-making, *University Science Indicators* has proved valuable in fund-raising. Rockefeller's data from *University Science Indicators* are an important tool for working with external funders and prospective research partners.

"Anecdotally, we can point to our many Nobel Prize winners and talk about the high quality of our research, but *University Science Indicators* gives us the data to actually show the global reach of our research."

"Our donors help us create new, state-of-the-art labs, because the citation data help them to appreciate our research," said Feltes. "By seeing how the rest of the world uses and needs our research, they are reassured that they are making a good investment with benefits that reach far beyond Rockefeller's halls."

CONCLUSION

Whether they are talking to donors, making decisions about budget and facilities, or wrestling with critical choices about the direction of the institution, Rockefeller University administrators rely on comprehensive quantitative data on research output and impact, thanks to *University Science Indicators*, its Thomson Reuters solution.

Scientific Head Offices

Americas
Philadelphia +1 800 336 4474
+1 215 386 0100

Europe, Middle East and Africa
London +44 20 7433 4000

Asia Pacific
Singapore +65 6411 6888
Tokyo +81 3 5218 6500

For a complete office list visit:
scientific.thomsonreuters.com/contact

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Citation Mapping: The one picture that says it all

October 2008

Finding and understanding the connections between published works can be the key to conducting complete research and tracking emerging trends. Citation mapping helps researchers visualize these citation connections at a glance.

Web of Science users are employing this new tool to visually track an article's past influences (cited references) as well as its subsequent developments (citing references). They can choose to view one or two generations of citations, as well as color code, re-configure, and organize their maps to highlight the citation relationships most important to their research.

Citation maps also let users view the full details on any article – primary, cited or citing – and link directly back to the full record in *Web of Science*.

> "...the software itself generates maps, which can be used by librarians in WOS training sessions to illustrate the concept of searching for cited/citing relationships.
>
> People who want a visual impression of the citing-cited relationships to a given document can use the citation mapping feature. Spatially or graphically oriented persons may especially appreciate the map display. Also, to get a sense of second generation relationships, it is easier for anyone to consult the citation map than to consult the times cited and references links."
>
> Source: "Web of Science's 'Citation Mapping' Tool"
> *Issues in Science and Technology Leadership*

Tutorial: how citation maps can help researchers get the full citation picture

www.brainshark.com/brainshark/vu/view.asp?pi=198303851

THOMSON REUTERS

Database content issues in measuring scholarly performance and impact – a lecture tour in Asia

October 2008

Dr. Peter Jacso took his expertise on cited reference searching to Asia in a recent Thomson Reuters lecture tour focusing on the dimensions of the underlying databases and their implications in calculating publishing performance measures of researchers and journals.

Dr. Peter Jacso is Professor, Department of Information and Computer Sciences at the University of Hawaii, USA. During his tour of six Asian cities in July 2008 he was accompanied by Dr. Lim Khee Hiang, Principal Trainer with the Scientific business of Thomson Reuters in Asia Pacific, who gave practical presentations on *Researcher ID*, the global, multi-disciplinary scholarly research community. The lectures were attended by librarians, researchers and academics from tertiary educational institutions in Bangkok, Kuala Lumpur, Singapore, Tainan and Taipei, and by journal editors of the Medical Society in Hong Kong.

Dr. Jacso has received much international recognition for his analyses of database quality, content and software evaluation of scholarly digital archives and other digital reference sources. He has published several books and conference papers, and written more than 500 papers and reviews in research publications such as the Annual Review of Information Science & Technology, Library Trends, Current Science and Cortex, in conference proceedings (National Online Meeting, International Conference on Asian Digital Libraries), as well as in his regular columns and editorials in Online, Online Information Review, Database, Computers in Libraries and Information Today.

Essential database deatures for measuring scholarly publishing performance

The lecture series explored the practical aspects of using –in addition to the perceptions-based ranking and rating by peers – more objective and reproducible measures for evaluating the scholarly publishing performance of individual scholars, research groups, institutions and even countries based on citation analyses using cited reference enhanced databases. Dr. Jacso demonstrated the essential content characteristics and key features of the citation matching and parsing process in some of the major subject-specific and multidisciplinary databases, that are critical for computing citation-based measures of scholarly productivity and impact.

Traditional and novel measures for evaluating scholarly journals

This segment of the lecture tour for publishers, editors, authors and librarians focused on the traditional and the citation-based novel methods for evaluating readership levels, the feasibility of launching new

journals, and making journal subscriptions and cancellation decisions . It discussed the performance measures for scholarly publications including the interpretation, reproduction and visualisation of citation relationships, as well as short-term and long-term productivity and impact factors, the h-index and its variants. By analysing, understanding and promoting these measures of performance and influence, editors are better able to evaluate and improve the visibility and clout of their journals, to advise potential authors and subscribers about editorial policies , and to recruit peer reviewers. Knowing and using such indicators also help in collection development and reference services.

The ResearcherID feature of Web of Science

The lecture tour also featured a presentation by Dr. Lim Khee Hiang who has published more than 54 publications in international journals, transactions and proceedings. He introduced *ResearcherID,* which offers researchers access to standardized and clarified author names and citation information in a global, multidisciplinary scholarly research community. This gives users the opportunity to manage public presentation of personal citation metrics and enables the research community the control on how their information is shared with peers around the world.

Additional information:

Visit and register for Researcher ID at researcherid.com

Using bibliometrics: A new white paper focuses on evaluating research performance with citation data: scientific.thomsonreuters.com/news/newsletter/2008-07/8465001/

THOMSON REUTERS

One sign-on delivers access to three powerful resources

October 2008

Users of ISI Web of Knowledge℠, ResearcherID and EndNote® Web can now access and personalize these resources using the same email address and password, enabling them to get the most out of their search and analysis efforts.

Registered users of *ISI Web of Knowledge, ResearcherID and EndNote Web* can take advantage of convenient features that enable them to shape their search to their needs. Depending on which *ISI Web of Knowledge* applications their institution subscribes to, they can:

- select a starting application
- save searches
- set up search history alerts and citation alerts
- create and maintain custom journal lists.

ISI Web of Knowledge access also includes *EndNote Web*, which enables users to integrate searching, writing, and bibliography creation. Once a user is signed-on, this process is facilitated – users can add references to their *EndNote* library directly from *Web of Science®* and other product databases; they can use *Cite While You Write™* in Microsoft Word to easily cite references in their paper; transfer references to and from the desktop version of *EndNote,* and share references with others who have *EndNote Web*.

Single sign-on also makes it faster and more convenient to register as a *ResearcherID* member. This unique author registry solves the common problem of author misidentification, and makes work more accessible Once registered, users can go directly to *ResearcherID* from *ISI Web of Knowledge* or *EndNote Web*, without signing on again. *ResearcherID* participants can then manage their publication lists to get the word out about their research accomplishments - raising their visibility when colleagues are searching for citations, collaborators, speakers, editors and reviewers.

If you're already registered with *ISI Web of Knowledge*, then you're also automatically registered with *EndNote Web*. Simply go to myendnoteweb.com to login using the same user name and password.

If you're already registered with *EndNote Web*, then you're already registered with *ISI Web of Knowledge* as well. Simply go to the *ISI Web of Knowledge* homepage and login under "Customize your experience" on the right-hand side of the page.

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Register for ResearcherID using the same email address and password you use for ISI Web of Knowledge. Sign in to *ISI Web of Knowledge* and then click <Sign-up/Access My ResearcherID> along the right-hand side of the page. The information from your *ISI Web of Knowledge* profile will be automatically transferred to the registration form.

THOMSON REUTERS

New software by Dr Eugene Garfield provides bibliometric analysis and visualization

October 2008

A new software package that helps researchers, librarians, and administrators analyze and visualize bibliographies is now available. HistCite® extends the utility of a bibliography far beyond its use as a reading list, by enabling the user to obtain various views of a topic's structure, history, and key events.

Bibliometric analysis

Bibliometric analysis is the use of the bibliographic information (titles, authors, dates, author addresses, references, etc. that describe published items) to measure and otherwise study various aspects of a specific field of scholarly endeavor. Typical bibliometric questions that can be answered by *HistCite* include:

- How much literature has been published in this field? When and in what countries has it been published? What countries are the major contributors to this field? What are the languages most frequently used by the items published in this field?
- What journals cover the literature of the field? Which are the most important?
- Who are the key authors in this field? What institutions do these authors represent?
- Which articles are the most important?
- How have the various contributors to the field influenced each other?

Historiographs

Information visualization is the transformation of non-numerical data into a graphic format, to help researchers and scholars understand large collections of information. Although there are numerous uses for information visualization, *HistCite* performs one specific application: it converts bibliographies into historiographs.

A historiograph is a time-based network diagram of the papers in a bibliography and their citation relationships to each other. In a historiograph, each paper in the bibliography is represented by a symbol selected by the user. The symbols are arranged over a timeline of the publication dates of the papers and connected by lines that represent the citation relationships. By changing the time frame of the analysis, the resulting historiograph can form a snapshot of a specific period or an in-depth look at the total history of a subject. Once a historiograph is created for a bibliography, it is easier to see and understand the subject's key publication events, their chronology, and their relative influence.

Historiographs can provide an invaluable starting point for those who need to write the history of a subject area - sociologists and science historians can use them to complement the subjective aspects of their work with objective data. The ability of historiographs to quickly and easily aggregate and visualize large amounts of data can help students overcome their initial inertia when starting to write doctoral dissertations. Authors of review articles can use historiographs to quickly pinpoint the key developments in their chosen topic.

Previously, bibliometric analyses and visualization of a bibliography, especially a large one, could only be accomplished (if at all) through onerous, repetitive clerical work. *HistCite* makes it possible for individual researchers to do this work quickly and with minimum help from support staff.

HistCite's origins

Eugene Garfield, Ph.D., president of HistCite Software LLC, is the program's inventor. Garfield is well known as the inventor of Current Contents®, Science Citation Index®, Index Chemicus® and other innovative information retrieval tools. He is also the founder of the Institute for Scientific Information (now part of Thomson Reuters). According to Garfield, he has "always sought to develop tools that increase knowledge and communication by reducing information overload. HistCite continues in this vein." He stresses that *HistCite* "is not just another program for formatting reference lists - it is a powerful analytical tool. In much the same way that a spreadsheet program allows you to better understand financial situations, *HistCite* lets you better understand the structure and history of a scientific or scholarly subject."

Using HistCite

To use *HistCite*, a literature search must first be conducted through Thomson Reuters *Web of Science*. The results are then imported into *HistCite* where the analytical and visualization work takes place under the direction of the user.

HistCite is intended to be useful in a wide variety of professional pursuits:

- Authors who wish to write review papers will find *HistCite* helps them gain new insights into the development and current structure of a subject
- Educators can use tables and charts created with *HistCite* to better explain a subject to students.
- For professionals who need to publish, it can significantly reduce the effort of authorship
- Authors, publishers, and journal editors wishing to know the role their publication plays in a given subject area can use *HistCite* for that purpose
- Science journalists can gain quick knowledge of a subject upon receiving new assignments
- Librarians who do searches for clients can provide added value by applying *HistCite* to their results.

The bibliography the user feeds to *HistCite* represents the literature of the subject area as it is defined by that user's unique perspective. So the analyses and visualizations produced by *HistCite* from that bibliography are one-of-a-kind, allowing better focus on specific areas than possible before.

Alexander Grimwade, Ph.D., chief operating officer of HistCite Software, claims that "the applications for *HistCite* are limited only by one's imagination. It simplifies the analyses and organization of search output so that researchers will be more willing to construct 'what if' scenarios that can lead to a new understanding of a subject."

Access to HistCite

HistCite sells for USD199 for the base program, with discounts for quantity purchases. Updates are provided free during the first year of use. *HistCite* is delivered via download of a fully functional 30-day free trial package. Try it now at http://secure.softwarekey.com/solo/products/info.asp?A=68683. The trial software can be converted to a licensed version via the Web site or by contacting HistCite Software via e-mail or phone. There is a money-back guarantee of satisfaction.

Compatible with most personal computers running Windows, HistCite itself has minimal hardware requirements, but very large data sets will require commensurate hard disk and memory space.