

Case study: Tepper School of Business, Carnegie Mellon University

Better reappointment, promotion and tenure *through data*



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“The SciVal Benchmarking module enables individual liaison librarians to work collaboratively with deans and other administrators to bring insightful data and value to the RPT process.”

Ryan Splenda,

Liaison librarian for the Tepper School of Business at CMU

Introduction

Tepper School of Business at Carnegie Mellon University (CMU) uses the insights it gains from SciVal's Benchmarking module to make informed and data-supported personnel decisions.



The quality of an institution's research and teaching plays a crucial role in its success, from helping to attract collaborators, funding and students, to influencing its position in university rankings. And with universities operating in an increasingly competitive environment, finding ways to retain talented faculty has become a priority.

In this case study, Ryan Splenda, the librarian at Carnegie Mellon University (CMU) responsible for liaising with the university's Tepper School of Business, explains why SciVal's Benchmarking module has become a linchpin in the school's reappointment, promotion and tenure (RPT) process, and walks us through the rewards that both CMU Libraries and Tepper are reaping. He also shares his top SciVal tips.

Finding the right tool for the job

Liaison librarian for the Tepper School of Business is only one of the many hats that Ryan wears at Carnegie Mellon University – he is also the Business & Economics Librarian for CMU Libraries, and liaison for CMU University Advancement.

But when, back in 2019, he was asked by Tepper's Dr. Linda Argote to take on additional responsibilities, he didn't hesitate. He explains: “She's the Senior Associate Dean for Faculty and Research, a role that includes responsibility for the school's RPT process. She wanted help gathering data to support that process and I immediately said yes, mainly because I knew of a particular tool – SciVal – and a particular module – the Benchmarking module within SciVal – that was pretty much a perfect solution for the job.”

Since that day two years ago, Ryan has provided Dr. Argote and the various RPT committees with the necessary data on the Tepper faculty members involved in the RPT process each semester, along with data on the peer faculty their performance is being benchmarked against. Ryan explains: “Specifically, they want to understand the volume of their annual scholarly output since they earned their PhD, along with a count of the citations their work received over that time period.”

“Ryan helped us to strengthen our RPT process by providing data about the number of publications and citations of our faculty and how those numbers compared to their peers. The information from SciVal about the productivity of our faculty and the impact of their work figures prominently in our promotion and tenure decisions.”

Dr. Linda Argote,

Senior Associate Dean for Faculty and Research at CMU's Tepper School of Business

Ryan's five-step process for leveraging the bibliometric data in SciVal's benchmarking module

Together with Dr. Argote, Ryan has developed a tried and trusted workflow for collecting and sharing the SciVal bibliometric data with the RPT committees.

Step 1: Identify the right candidates

The process begins when Ryan receives two lists from the committees.

- The first contains the Tepper faculty going through the RPT process that semester. Ryan says: “Importantly, it includes the year they earned their PhD – essential information for determining the timeframe of the analysis.”
- The second list contains the names of peers at international institutions that the Tepper faculty members will be benchmarked against. Ryan adds: “These peers are chosen based on the year they earned their PhD. This is always plus or minus one year from when the Tepper faculty member earned their PhD. So, if Tepper faculty member X earned their PhD in 2013, we look for data for all peers who earned their PhD in 2012, 2013 or 2014.” According to Ryan, there are typically six to 12 peer researchers per Tepper candidate. “Personally, I prefer it when the list is longer – I’m a big believer in the more data the better!” Ryan also receives the dates the peers received their PhDs, as well as their current affiliation. “Having the names of their institutions saves me a lot of time when I’m checking the data.”

Step 2: Collect and validate the researcher data

Ryan begins by sourcing additional data points he can use to confirm he's found the right researcher profiles in SciVal. He explains: “I’ll look online for the researchers’ webpages and CVs. Once I have that information ready, I’ll look up the Tepper and peer faculty in SciVal and match the publications in their webpages or CVs with their publications listed in SciVal. I usually feel comfortable it’s the same person when I’ve matched three or four publications.” For Ryan, this verification step is one of the most crucial stages of the process. “I cross check, and then I cross check again. Getting it right is essential to the entire project.”



Step 3: Create researcher profiles in SciVal

Once Ryan is happy he has identified the right researchers, he adds each one to SciVal's Benchmarking module.

Step 4: Run analysis on each researcher

The analyses that Ryan runs for the RPT committees using the SciVal Benchmarking module capture the following two metrics for each faculty member and their peers:

- **Scholarly output per year:** "This is the number of publications the researcher has published annually since receiving their PhD," Ryan explains. "Tepper wants data for all publication types, including conference proceedings, book chapters etc., but they also want data for articles only, so I run this analysis twice."
- **Total citation count:** Ryan says: "This is the total number of citations that those publications have received. Just as with scholarly output, I run the analysis twice to get the figures for all publication types and for articles only."

Ryan's SciVal tip #1

According to Ryan, just searching for a researcher using their first and last names is often sufficient. "However, that's not always going to work; for example, when there's more than one faculty member with the same name." If Ryan's search returns multiple records, he uses additional fields, including:

- **Affiliation:** He explains: "This can be really useful, but remember, a researcher's affiliation may not always be up to date; for example, if they have moved to a new position in the past three months, or they haven't published anything while in a new position. Some researchers also list their business school as their affiliation when they publish, rather than their university."
- **Subject area:** Ryan says: "Again, this can be useful, but be aware that business school faculty members are not always tagged with the business and management subject area tags. There are plenty of faculty whose research falls within computer science, mathematics and other sciences."

“[The Senior Associate Dean] wanted help gathering data to support the RPT process and I immediately said yes, mainly because I knew of a particular tool – SciVal – and a particular module – the Benchmarking module within SciVal – that was pretty much a perfect solution for the job.”

Ryan Splenda

Liaison librarian for the Tepper School of Business at CMU

Step 5: Generate and distribute the analysis results

Ryan provides the RPT committees with an Excel spreadsheet containing the scholarly output and citation data for the Tepper faculty member and their peers. He also includes the year range “so the committees have the appropriate timeframes at hand”, the types of publications, and the researchers’ names, with the relevant researcher highlighted in yellow. Before he shares the file with the committees, he sorts it by citation count – high to low.

Ryan’s SciVal tip #2

According to Ryan, “it’s always worth including a column containing the researchers’ Scopus IDs. Very useful if you need to do any kind of checking or matching later. This is also helpful to the RPT committees in case they would like to further explore a researcher’s output and impact within SciVal and/or Scopus.”

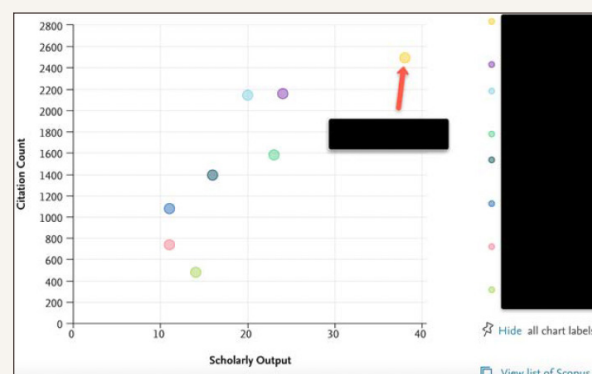
Ryan also delivers a visualization of the same data in chart form. On the x-axis he shows the researchers’ scholarly outputs, while the y-axis contains their citation counts. He assigns each researcher a color and uses a red arrow to highlight the Tepper faculty member.

Initiatives	REDACTED		
Year range	2003 to 2021		
Subject classification	ASJC		
Filtered by	All subject areas		
Data source	Scopus		
Date last updated	29 September 2021		
Date exported	11 October 2021		
Author name	Self-citations	Types of publications include	Other options
Citation Count	included	All publication types	-
Scholarly Output	-	All publication types	-

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Entity	Scopus author id	Citation Count	Scholarly Output
REDACTED	REDACTED	3223	45
REDACTED	REDACTED	2493	38
REDACTED	REDACTED	2156	24
REDACTED	REDACTED	2141	20
REDACTED	REDACTED	1581	23
REDACTED	REDACTED	1391	16
REDACTED	REDACTED	1283	30
REDACTED	REDACTED	1181	21
REDACTED	REDACTED	1076	11
REDACTED	REDACTED	736	11
REDACTED	REDACTED	478	14
REDACTED	REDACTED	354	14

An example of the Excel spreadsheets that Ryan generates using the SciVal Benchmarking module.



An example of the charts that Ryan generates using the SciVal Benchmarking module.

Positioning the liaison librarian as a valued partner

For Ryan, one of the benefits of participating in a project like this is that it enables liaison librarians to demonstrate their value. “We bring valuable experience and expertise to a process, including knowledge of the various tools we work with, along with quality data. Drawing on these elements, we can save our colleagues a lot of time and effort.”

He adds: “In the case of Tepper, the library is supporting a critical process that not only contributes to the success of the business school, but of CMU at large.”

Another plus point is that “it allows us to collaborate with deans and administrators at the schools we liaise with. If we can build stronger collaborative relationships between the librarian and key decision makers at these various schools, we can hopefully strengthen that connection.”

He adds: “From a personal perspective, I’ve also found it offers me the opportunity to learn more about my faculty’s research, which is never a bad thing. A deeper understanding of what they do can open the door to outreach and collaboration with those faculty. It also makes it easier to anticipate their teaching and research needs.”

About Tepper School of Business

The **Tepper School of Business** is the business school of Carnegie Mellon University. It is located on the university’s 140-acre (0.57 km²) campus in Pittsburgh, Pennsylvania, US. The school offers degrees from the undergraduate through doctoral levels, in addition to executive education programs.

Originally known as the Graduate School of Industrial Administration (GSIA), Tepper was founded in 1949 by William Larimer Mellon. In March 2004, the school received a record \$55 million gift from alumnus David Tepper and was renamed the “David A. Tepper School of Business at Carnegie Mellon”.

A number of Nobel Prize-winning economists have been affiliated with the school, including Herbert A. Simon, Franco Modigliani, Merton Miller, Robert Lucas, Edward Prescott, Finn Kydland, Oliver Williamson, Dale Mortensen and Lars Peter Hansen.

Its online MBA now holds the top spot in the *U.S. News & World Report rankings*, while its full-time MBA programs have appeared in the top 20 of rankings as diverse as the *Financial Times*, *Fortune*, *QS*, *Forbes* and *Times Higher Education*. Since 2008, Tepper has also been responsible for launching more than 260 business start-ups.

About Ryan Splenda

As the Business & Economics Librarian for CMU Libraries, Ryan liaises with the Tepper School of Business and CMU University Advancement. For over five years, he has provided research, teaching and information support to the faculty, staff and students of these campus units. His research interests include the evaluation and usage of private equity (PE) and venture capital (VC) data sources, and expanding the evidence synthesis methodology, with particular attention to systematic reviews, within the fields of business librarianship and business and management at-large. In his spare time, he enjoys spending time with his wife and their two cats, watching college football, attending rock concerts and discussing horror movies.



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