Clarivate™

How Can Dissertation Citation Networks Accelerate Discovery?

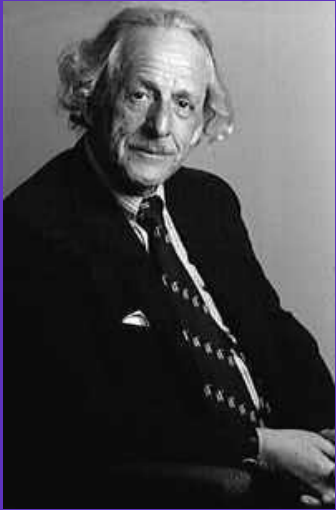ProQuest Breakfast/CGS Summer Workshop

July 11, 2022

AGENDA

1. Benefits of Citation Indexing

2. How does it work?

3. Why is it helpful?

4. Why expand to dissertations and theses?

5. How does it work today?

6. How can I help students apply these tools to their work?

7. Q & A

Gilia Smith, PhD
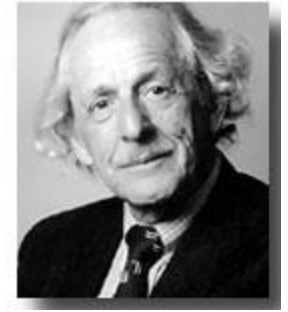Director of Academic Relations for Australia, New Zealand and North America

"…a citation index…tends to bring together material that would never be collated by the usual subject indexing. It is best described as an association-of-ideas index…"

Dr. Eugene Garfield, *Science*, 1955

Citation Indexing: Benefits for Information Retrieval

- 1955 Garfield introduces the concept of citation indexing for the sciences ("Citation indexes for science: a new dimension in documentation through association of ideas," *Science*, 122 (3159): 108-111, 1955).

- In a citation index, the search begins with a paper of interest (a "seed paper") and permits navigation backward through cited references or forward through papers citing the seed paper

- Authors embed their expertise and judgment in the cited references they append to their papers, resulting in an "association of ideas index."

- Citation indexing and searching breaks lexical barriers (controlled vocabulary of indexers) and subject limitations of source coverage. It not dependent on changing terminology.


"Every time an author makes a reference, he is in effect indexing that work from his point of view." p. 110

Clarivate™

Bibliographic Coupling: Discovering Closely Similar Documents

If two documents share cited references, they are **coupled or paired**, indicating some degree of similar content. The greater the number of shared cited references, the higher probability that the two papers are strongly related.

In the **Web of Science, "Related Records"** are provided in the source record. This is a list of bibliographically coupled papers, ranked by the number of shared cited references.
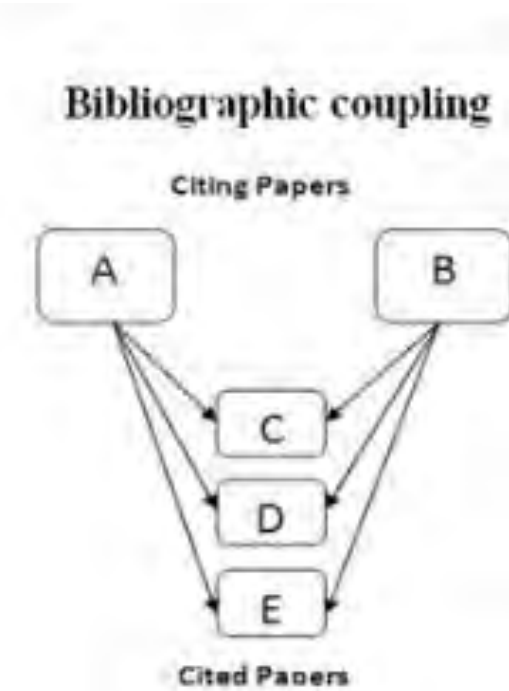
Bibliographic coupling

Citing Papers

A   B

C

D

E

Cited Papers

Papers A and B are bibliographically coupled because they have cited papers C, D and E in their reference list.

M.M. Kessler, "Bibliographic coupling between scientific papers," *American Documentation,* 14 (1): 10-25, 1963.
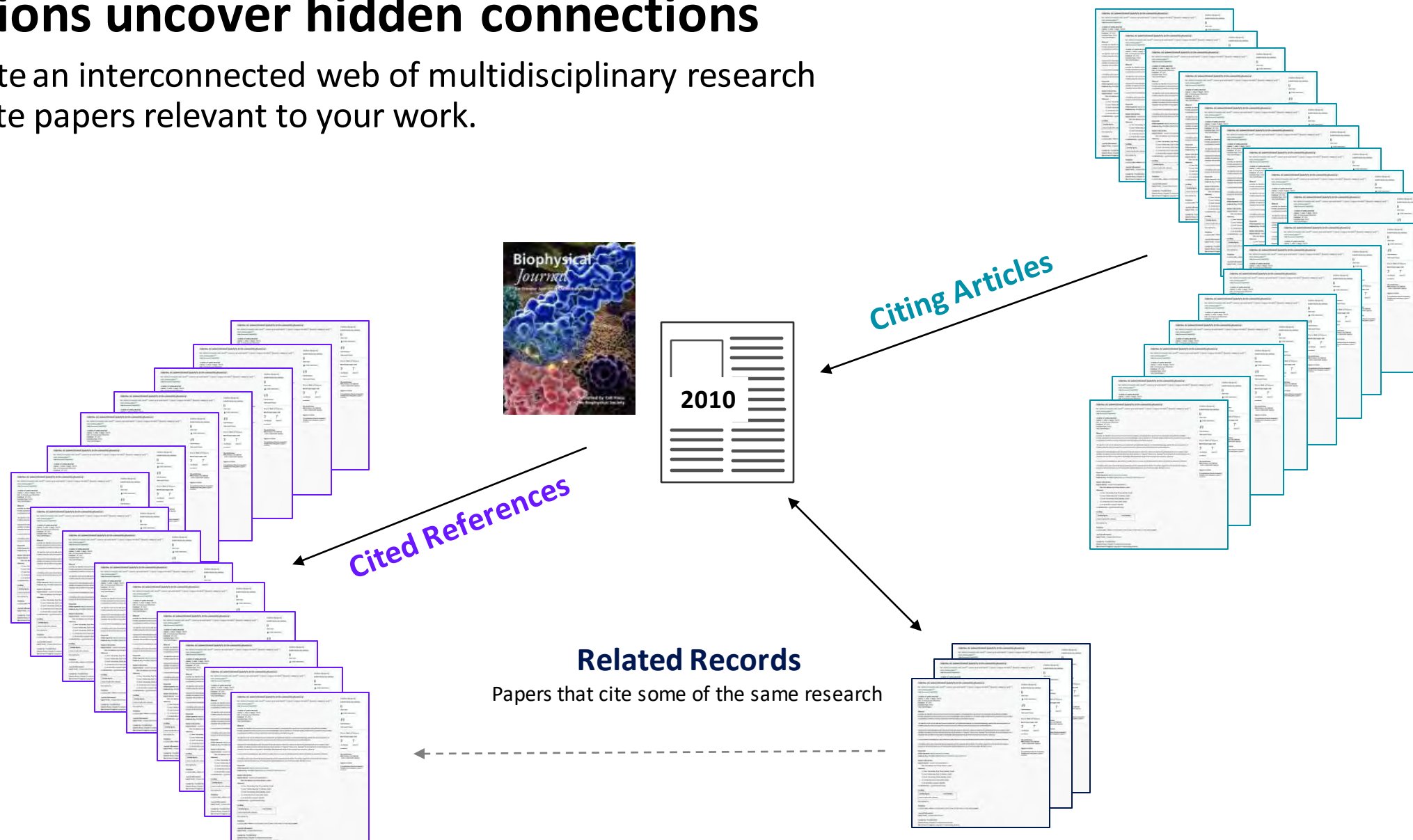
Clarivate™

Mapping the Citation Network for Discovery and Insights
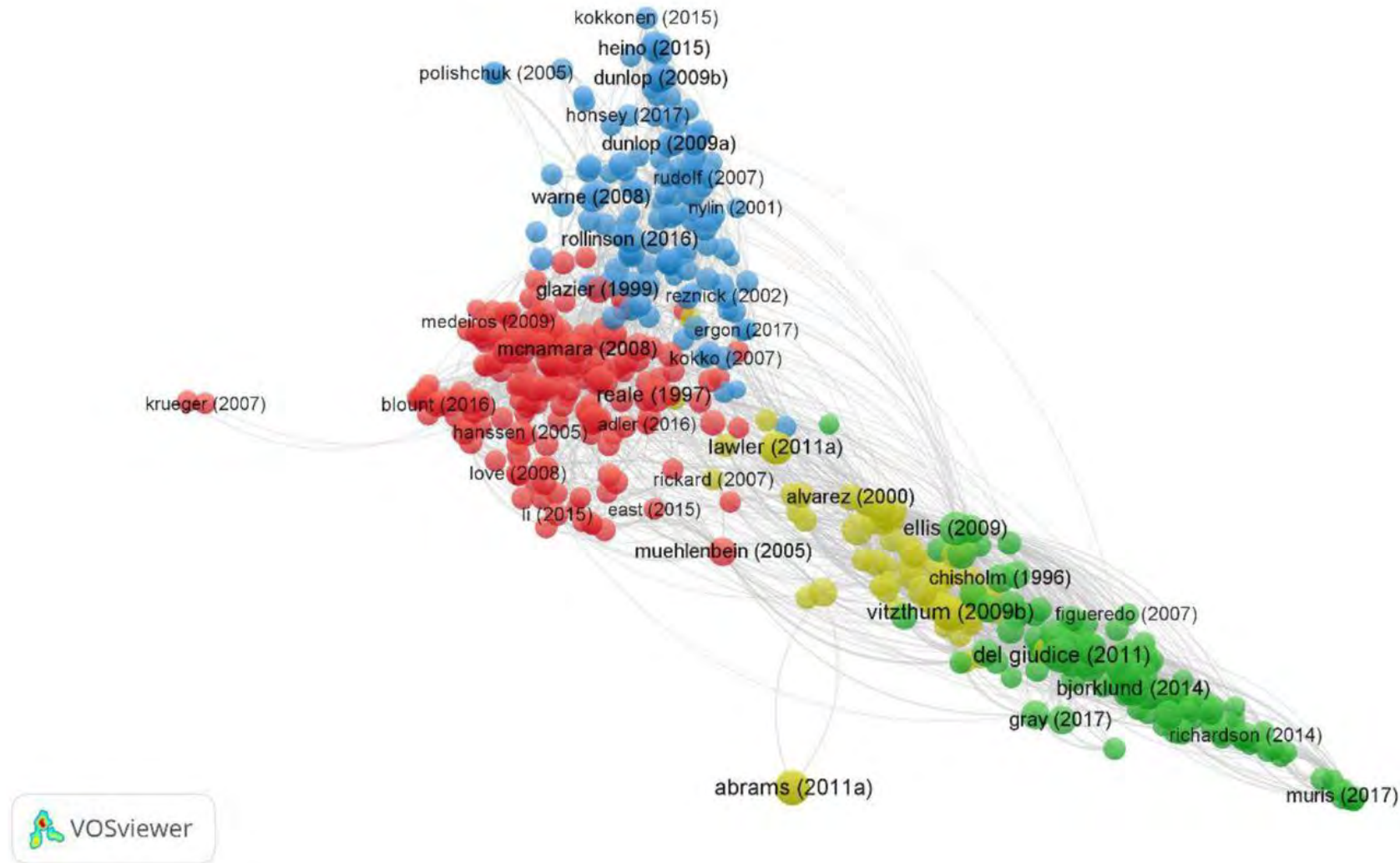
Citations uncover hidden connections

Navigate an interconnected web of multidisciplinary research to locate papers relevant to your work.

Citing Articles

Cited References

2010

Related Records
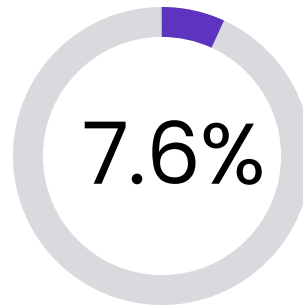Papers that cite some of the same research

Clarivate™

Uncover the Undiscovered

Dissertations and Theses

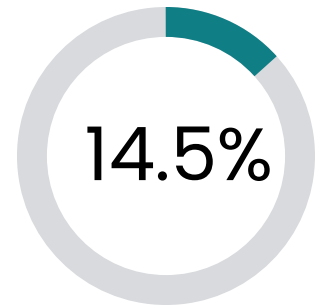# Acceptance Rates of Top Science Journal Publishers

7.6%

10.2%

14.5%

https://www.science.org/content/page/journal-metrics.
https://journalinsights.elsevier.com/journals/0142-9612/acceptance_rate.
https://www.nature.com/nature/for-authors/editorial-criteria-and-processes

Clarivate™
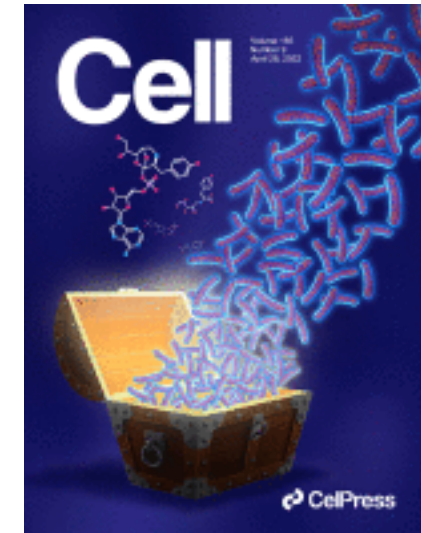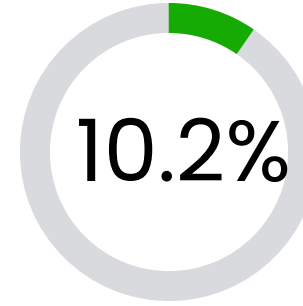
Dissertations and Theses are essential for comprehensive discovery

Web of Science™
- Peer-reviewed Journal Articles
- Conference Proceedings
- Books
- Emerging Sources

ProQuest Dissertations & Theses Global
- Unpublished scholarship
- Unpublished Data sets
- Marginalized perspectives

Clarivate™
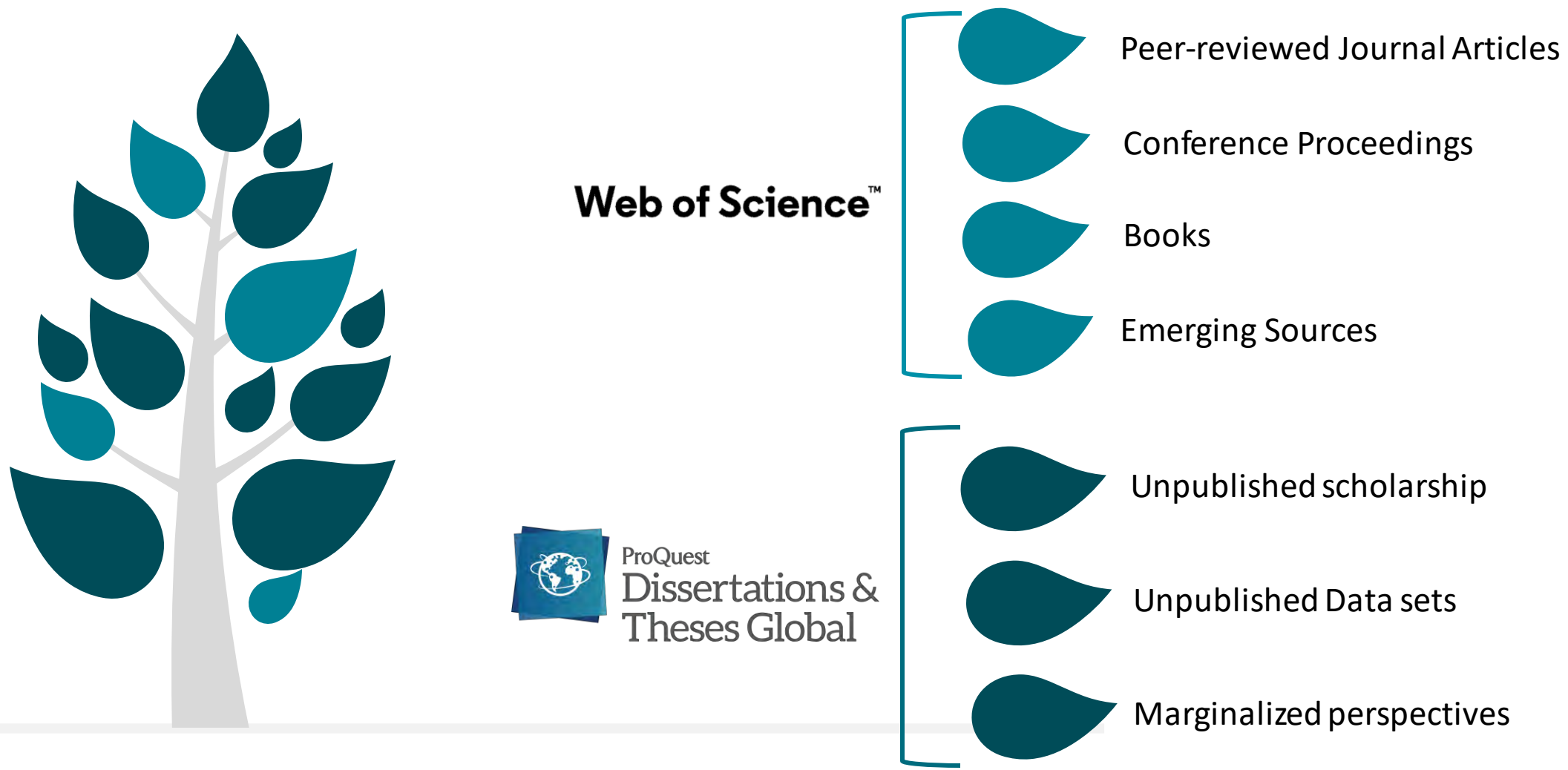
Representing Marginalized Perspectives and Filling Diversity Gaps

Bring more diversity into research

Women of Color missing from Textbooks

"As a black woman being able to see myself in these dissertations and connections is wonderful."

– Dr. Rihana S. Mason, Research Scientist, Georgia State University

Dr. Inez Beverly Prosser, First African-American female to receive a doctorate in Psychology, University of Cincinnati, 1933

PROQUEST DISSERTATIONS & THESES SUCCESS STORY

Improving Diversity in Curriculum by Uncovering Unheard Voices

Faculty leaders and researchers use dissertations to fill the diversity gaps in current undergraduate psychology textbook curriculum

Ruth Howard

Tsuruko Haraguchi

Lillian Comas-Diaz

Carolyn Attneave

Alberta Banner Turner

Tomi Kora

Topics lacking a Platform

"The history I wrote was not mine to hold onto, but rather belongs to the drag performers of the past, present, and future."

– Dr. Lady J

PHOTO CREDIT: IAN ARGO

PROQUEST DISSERTATIONS & THESES SUCCESS STORY

The Erasure of Drag Contributions in Performance History

How one researcher's decision to include her dissertation in PQDT allowed her to document, elevate, empower her voice

Case Study   Dr. Lady J Dissertation

Clarivate™

Leveraging Unique and Unpublished Findings

Providing researchers with the unique opportunity to conduct research that can only be done with dissertations.

Reviewing Unpublished Data Sets

"The published research literature is biased toward statistically significant results, and the content in PQDT represents the most current research in an area that is not biased toward statistical significance. When I review systematic reviews for journals, I insist that PQDT is searched for relevant research"

– Terri Pigott, Professor of the School of Public Health at the College of Education, Georgia State University

PROQUEST DISSERTATIONS & THESES SUCCESS STORY

Avoiding Bias by Starting at the Source

Research Case Study: *Outcome-Reporting Bias in Education Research,* Loyola University Chicago

[Video]   [Case Study]

Using a Global Collection for Text and Data Mining

"We are excited about the potential for greater international coverage within ProQuest Dissertations & Theses Global. Innovation is increasingly a global enterprise and the ability to identify and follow researchers from many countries is tremendously valuable."
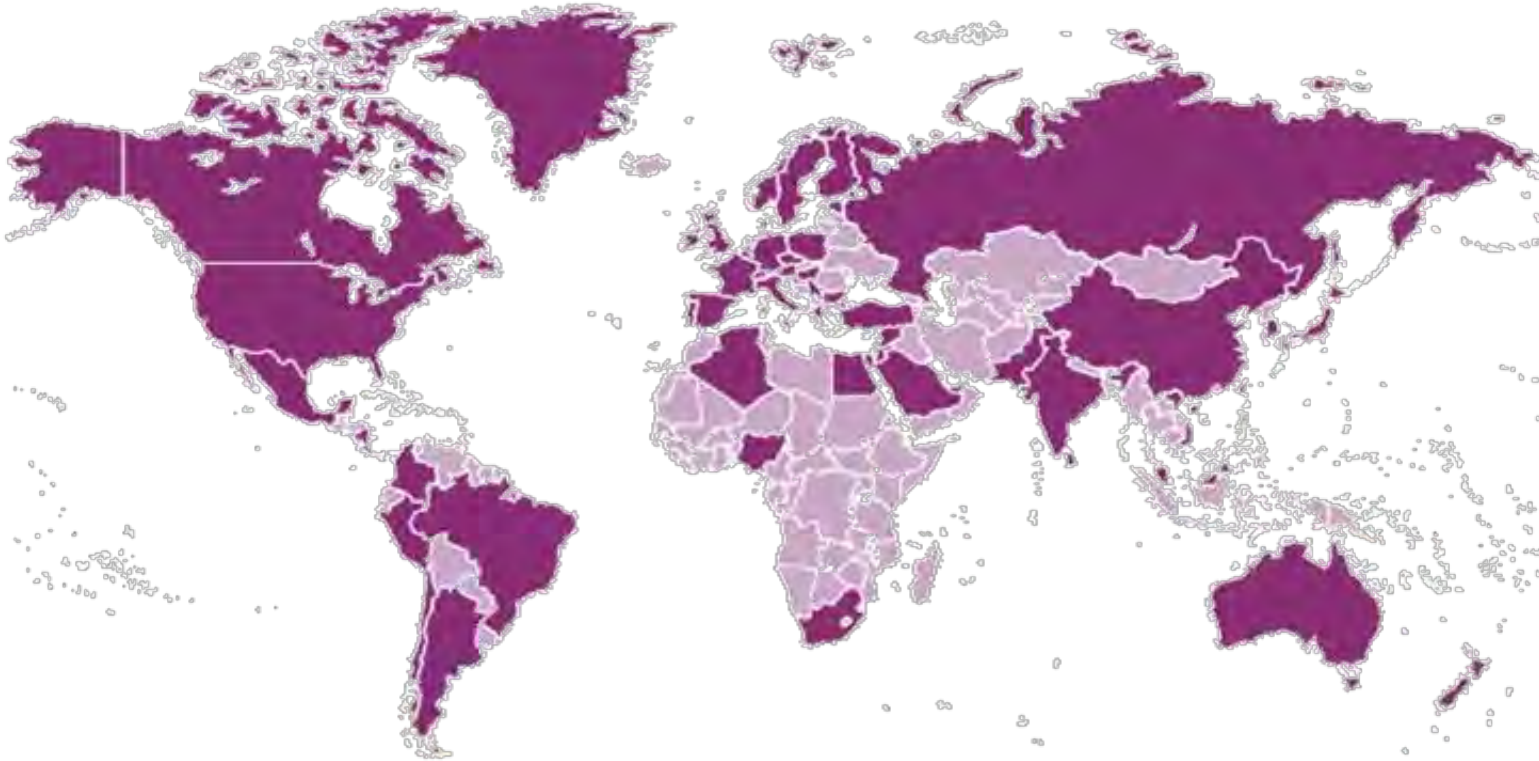
– Bruce A. Weinberg, Ph.D.

PROQUEST DISSERTATIONS & THESES SUCCESS STORY

Trends in the Evolution of Research and Doctoral Education

How text and data mining of ProQuest Dissertations & Theses Global allows

[Case Study]

Clarivate™

ProQuest Dissertations & Theses Global

In order to support comprehensive scholarship sources must offer:

- Full text
- Equitable Discoverability
- Global
- Multi-disciplinary
- Multi-lingual
- Multi-cultural

60+
Countries represented in content

4.1K
Universities' content represented

3M
Full text records

~60%
Of titles added annually are from outside the U.S

Clarivate™

SOLVING STUDENT CHALLENGES

To conduct efficient, and effective, discovery

Clarivate

Top Challenges of Students and Researchers

GRADUATE STUDENTS – selecting their research topic		UNDERGRADS – term paper or thesis
1	**2**	**3**
BUILDING FOUNDATIONAL EXPERTISE IN THEIR FIELD	CONTRIBUTING UNIQUE SCHOLARSHIP TO THEIR FIELD	QUICKLY FINDING RELEVANT SOURCES ON NICHE TOPICS
How do I ensure I study the most important research that has been contributed to my field?	How do I define a research project that will be a unique contribution to my field?	How can I find sources for a term paper or project when there seems to be little published on the topic?

Clarivate™

The Information Overload

The only solution to information overload is precise information retrieval.
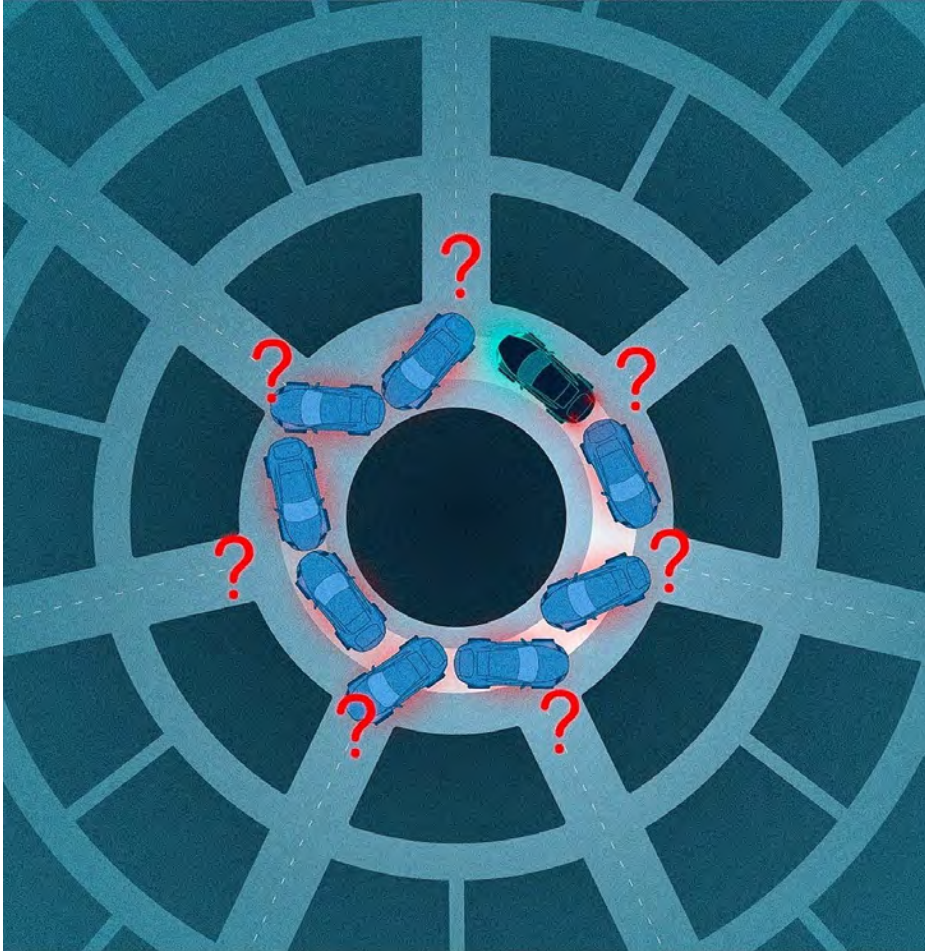
In 2020…

15K Scholarly articles

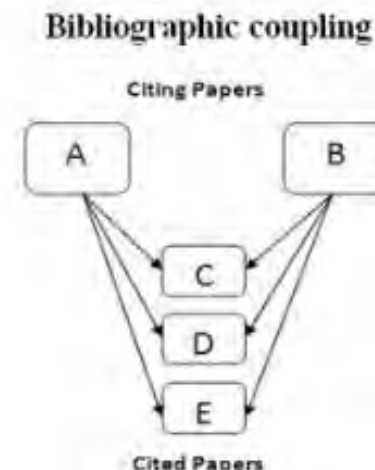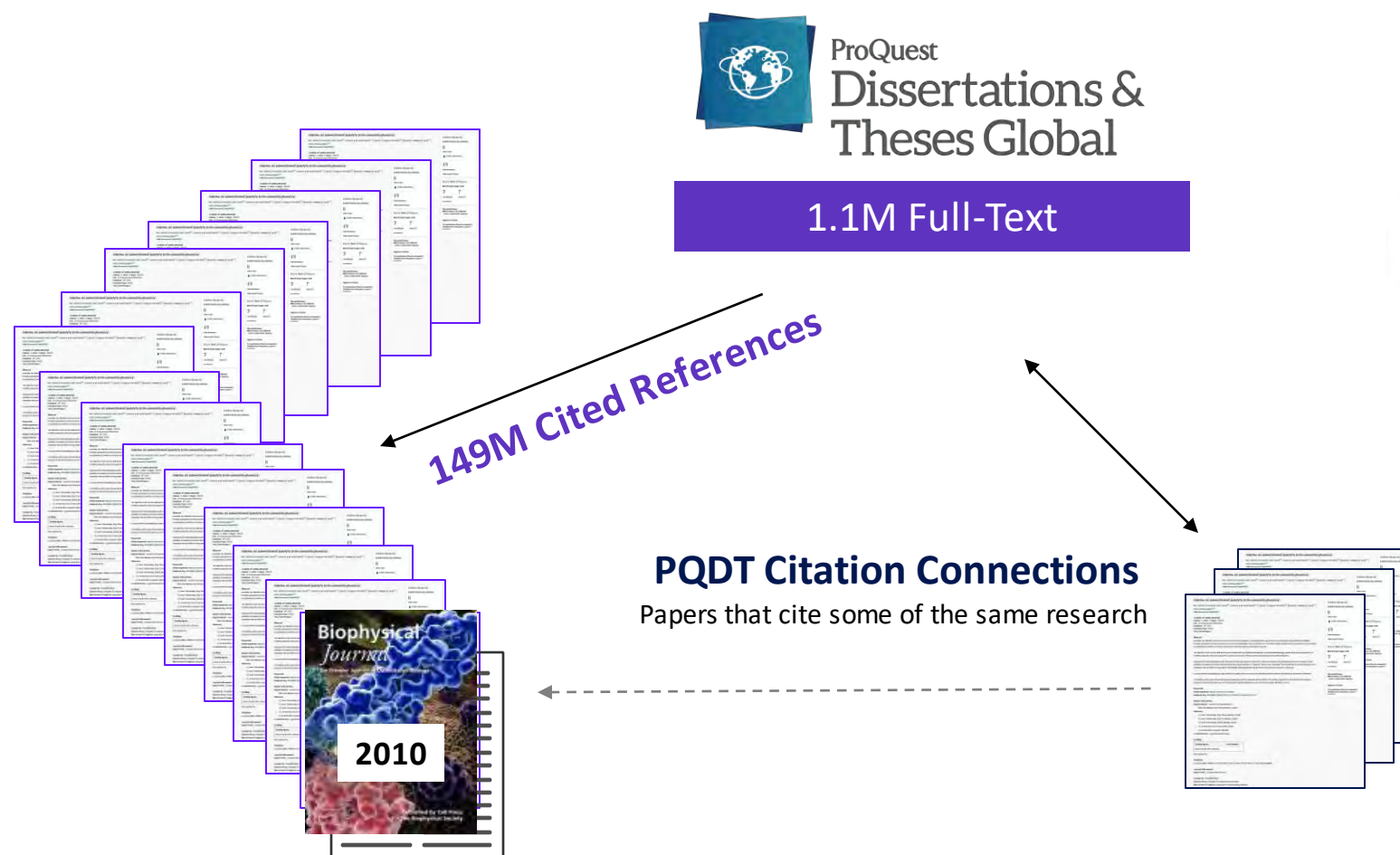about nCoV-2 and COVID-19 *in the first 5 months alone**

AND

24K Dissertations & Theses

were published to PQDT Global

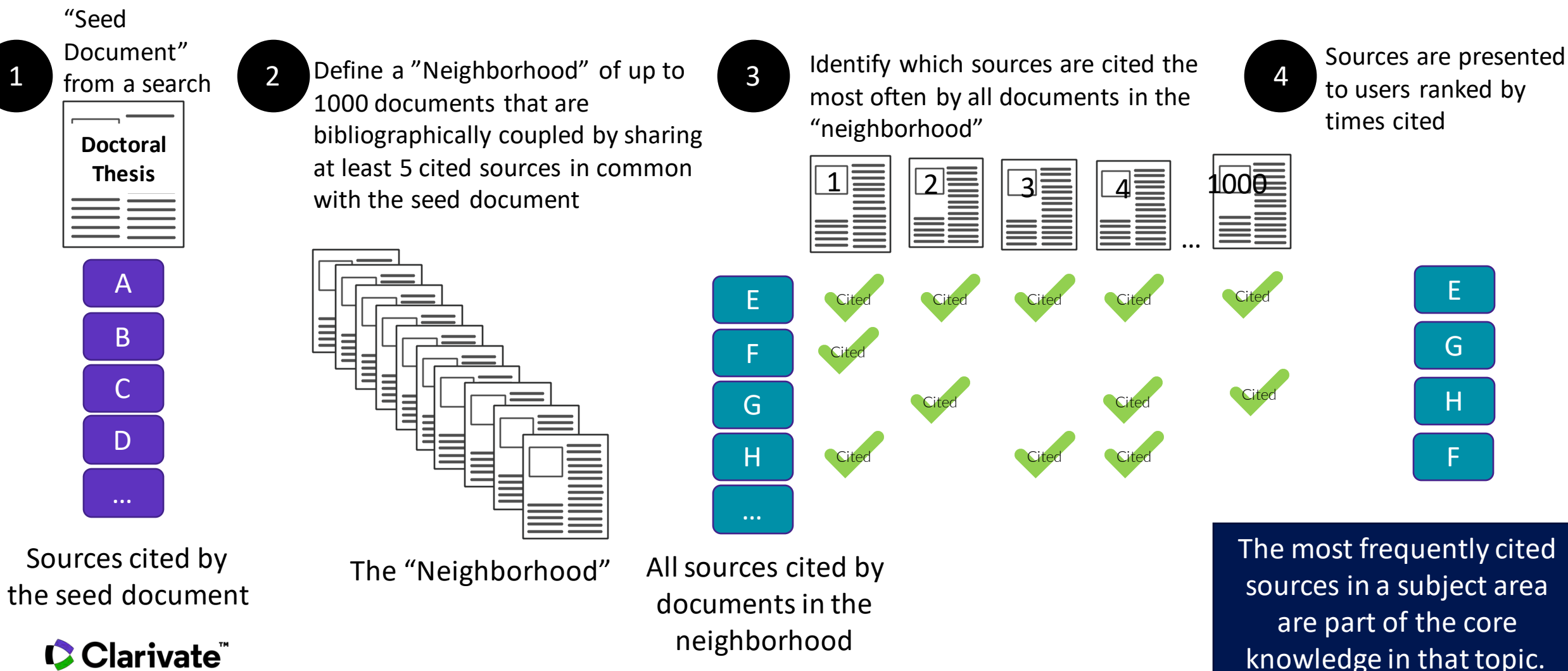**Pal, J.K. Scientometrics* **126,** 4173–4193 (2021). https://doi.org/10.1007/s11192-021-03912-3

Clarivate™

Dissertation citations are a unique resource for uncovering hidden connections

Bibliographic coupling

Papers A and B are bibliographically coupled because they have cited papers C, D and E in their reference list.

ProQuest Dissertations & Theses Global

1.1M Full-Text

149M Cited References

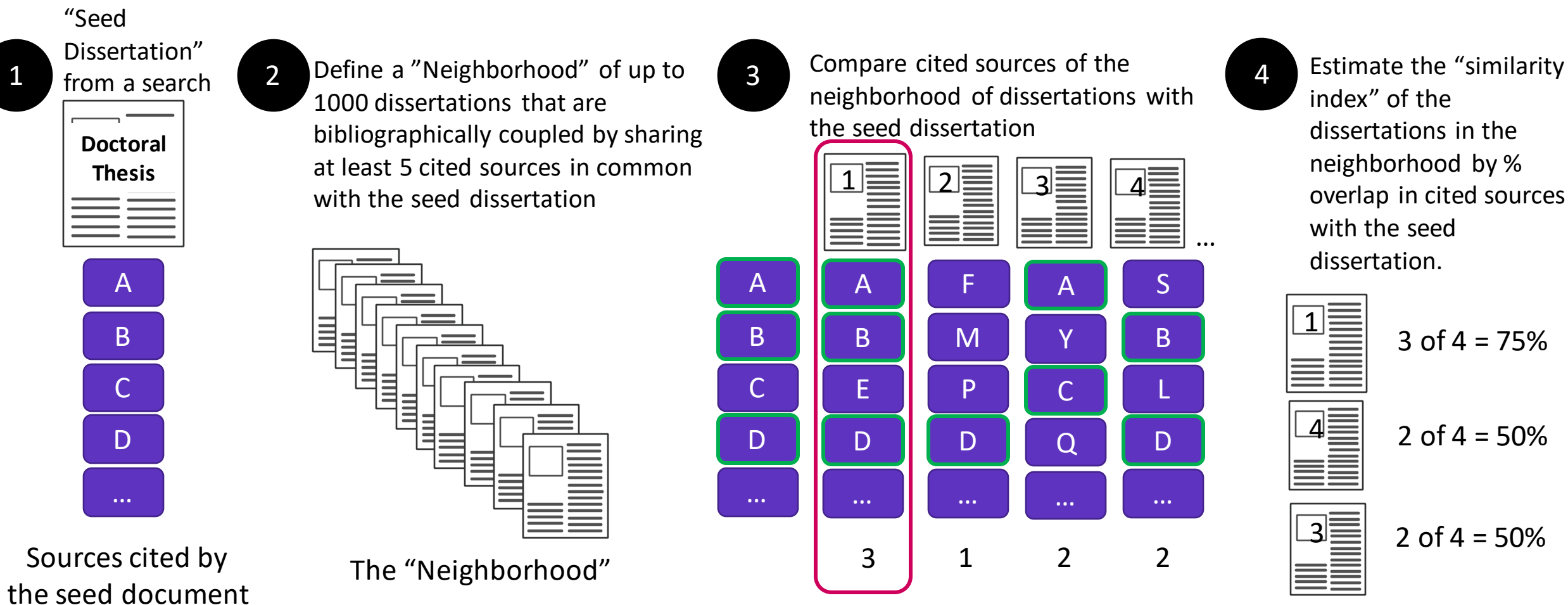**PQDT Citation Connections**
Papers that cite some of the same research

2010

Citation Connections: Finding foundational sources using dissertations

How do I find the most important research in my field?

1 "Seed Document" from a search

Doctoral Thesis

A
B
C
D
...

Sources cited by the seed document

2 Define a "Neighborhood" of up to 1000 documents that are bibliographically coupled by sharing at least 5 cited sources in common with the seed document

The "Neighborhood"

3 Identify which sources are cited the most often by all documents in the "neighborhood"

1 2 3 4 1000 ...

E — Cited Cited Cited Cited Cited
F — Cited
G — Cited Cited Cited
H — Cited Cited Cited
...

All sources cited by documents in the neighborhood

4 Sources are presented to users ranked by times cited

E
G
H
F

The most frequently cited sources in a subject area are part of the core knowledge in that topic.

Citation Connections: Finding similar sources using dissertations

How do I ensure I find a research topic that is a unique contribution to my field?

1 "Seed Dissertation" from a search

Doctoral Thesis

A
B
C
D
...

Sources cited by the seed document

2 Define a "Neighborhood" of up to 1000 dissertations that are bibliographically coupled by sharing at least 5 cited sources in common with the seed dissertation

The "Neighborhood"

3 Compare cited sources of the neighborhood of dissertations with the seed dissertation

| 1 | 2 | 3 | 4 |

A	A	F	A	S
B	B	M	Y	B
C	E	P	C	L
D	D	D	Q	D
...	...	...	...	...
	3	1	2	2

4 Estimate the "similarity index" of the dissertations in the neighborhood by % overlap in cited sources with the seed dissertation.

1 3 of 4 = 75%

4 2 of 4 = 50%

3 2 of 4 = 50%

Citation Connections in Action

Locating foundational expertise and contributing novel topics

How can Librarian's Help?

GRADUATE STUDENTS – selecting their research topic		UNDERGRADS – paper or thesis
1	**2**	**3**
BUILDING FOUNDATIONAL EXPERTISE IN THEIR FIELD	CONTRIBUTING UNIQUE SCHOLARSHIP TO THEIR FIELD	QUICKLY FINDING RELEVANT SOURCES ON NICHE TOPICS

Help them quickly locate the most important research that has contributed to their field.

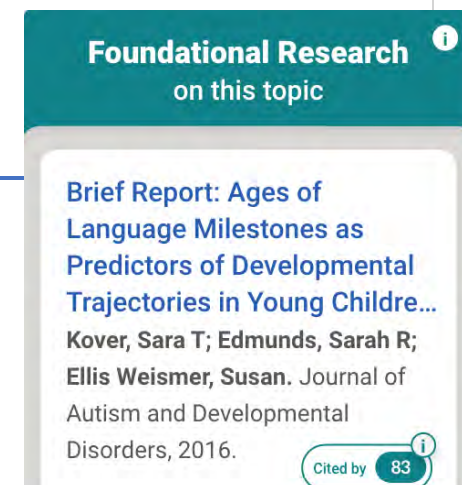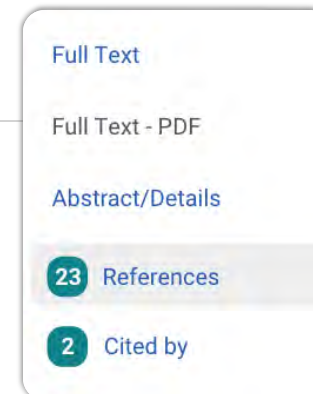Guide them to all relevant dissertations in their field, so they can identify a gap to fill.

Suggest they start their search with a dissertation. Using References and Foundational Research can help them find their sources.
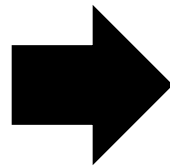
Cited References

The Vision:

Harnessing the Power of Data-driven Research Insights

Questions?

gilia.smith@proquest.com

Request a trial:

https://go.proquest.com/PQDT_webinar

Request a demo:

training@proquest.com

Clarivate™