Enhance your research with Web of Science & Journal Citation Reports

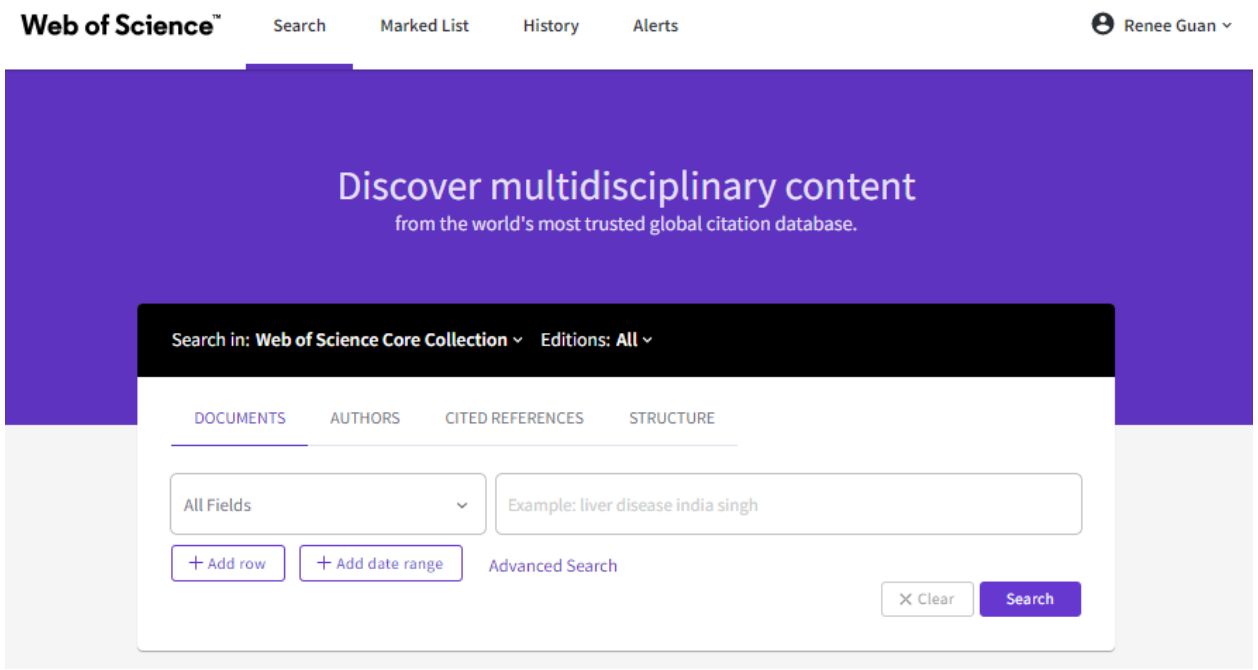
Renee Guan 官欣瑩
Senior Solution Consultant
2021.12.1

Introduction of Web of Science and Citation Index

Question

How do you decide to buy a book?

A. Table of Content



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Web of Science Core Collection - Trusted & Publisher-independent

Objectivity, Selectivity and Collection Dynamics

Web of Science Core Collection：WIDTH

01 Science Citation Index Expanded

- 9,046 Journals
- 1900-Current

02 Social Science Citation Index

- 3,400+ Journals
- 1900-Current

03 Art & Humanity Citation Index

- 1,815 Journals
- 1975-Current

04 Emerging Sources Citation Index

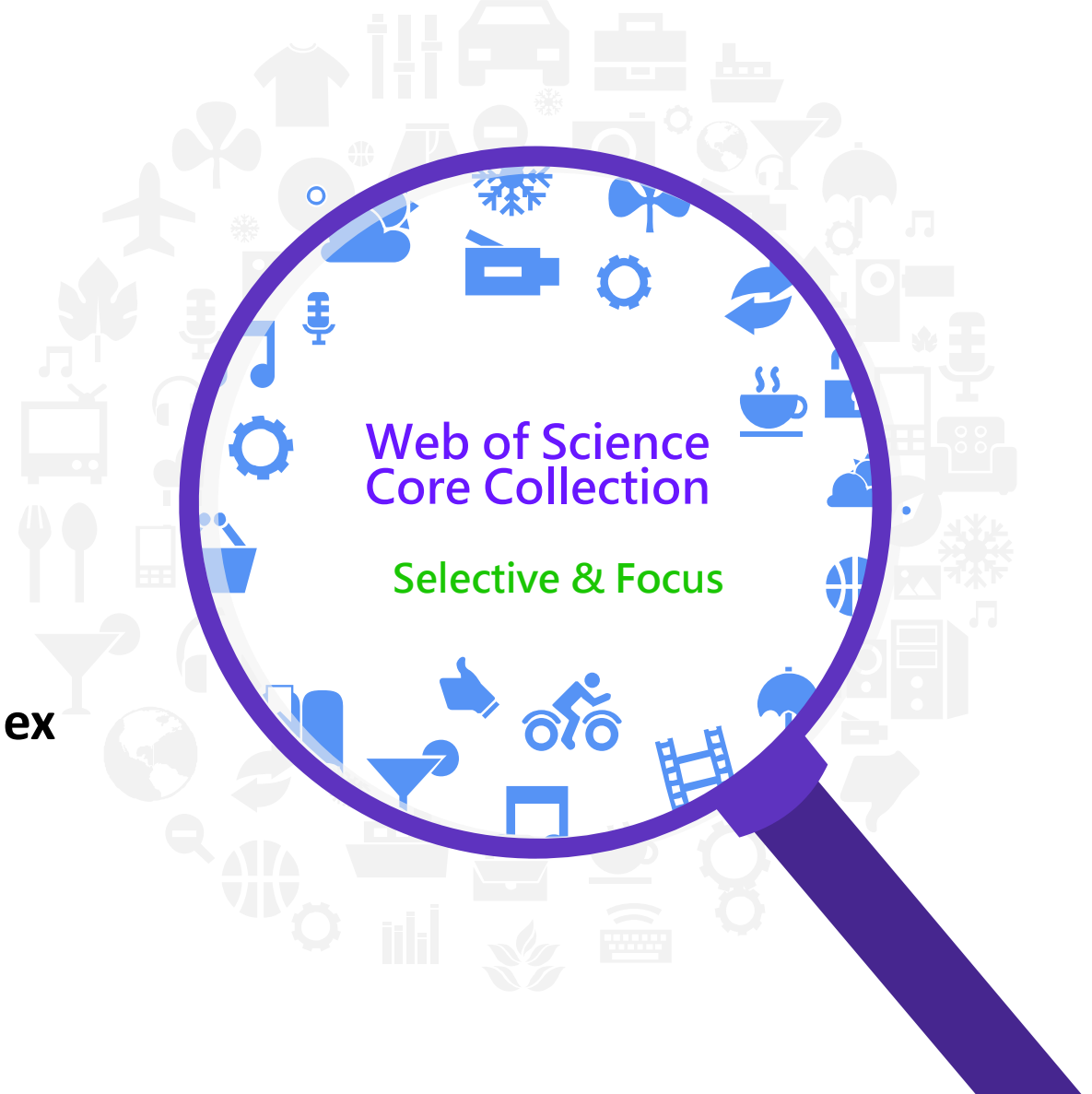
- 7,280 Journals
- 2005-Current

05 Conference Proceedings Citation Index

- 191,000+ Conferences
- 1990-Current

06 Book Citation Index

- 80,617 Books
- 2005-Current



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Question

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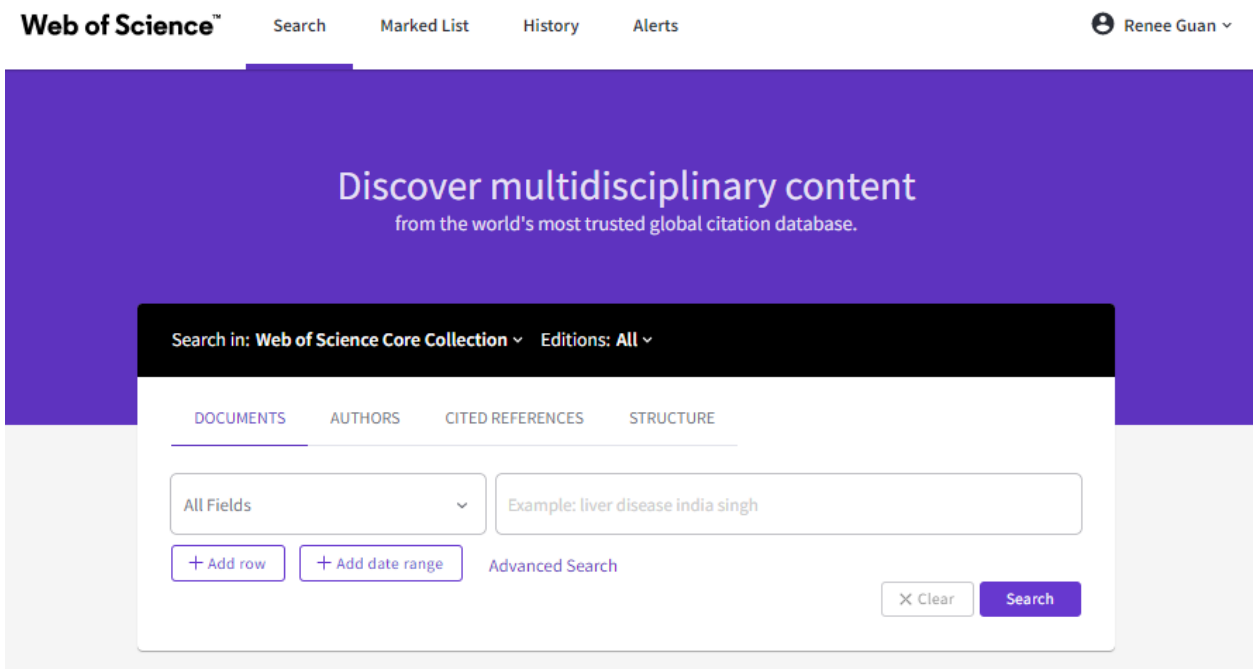

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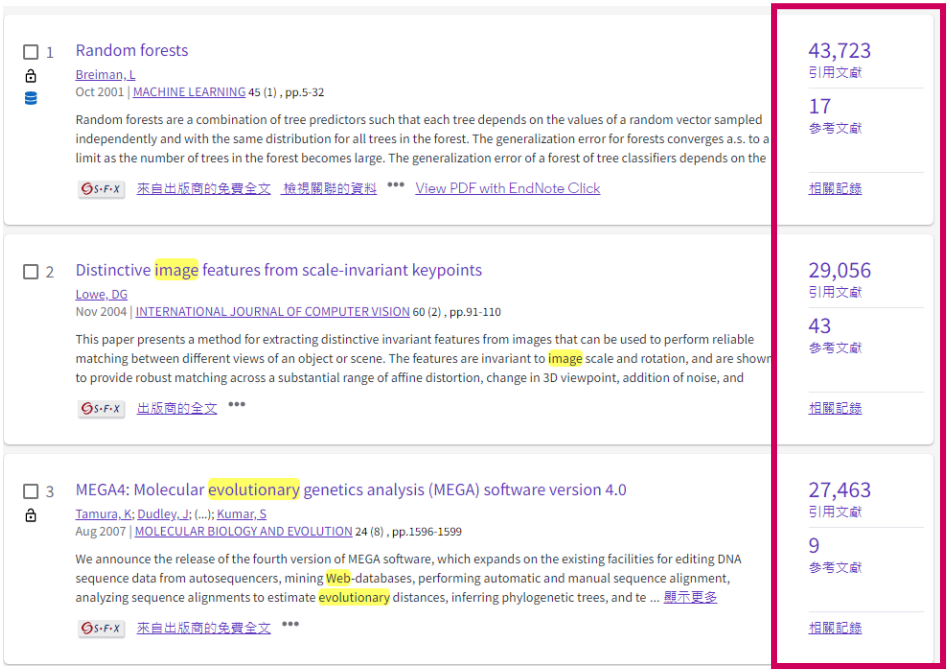

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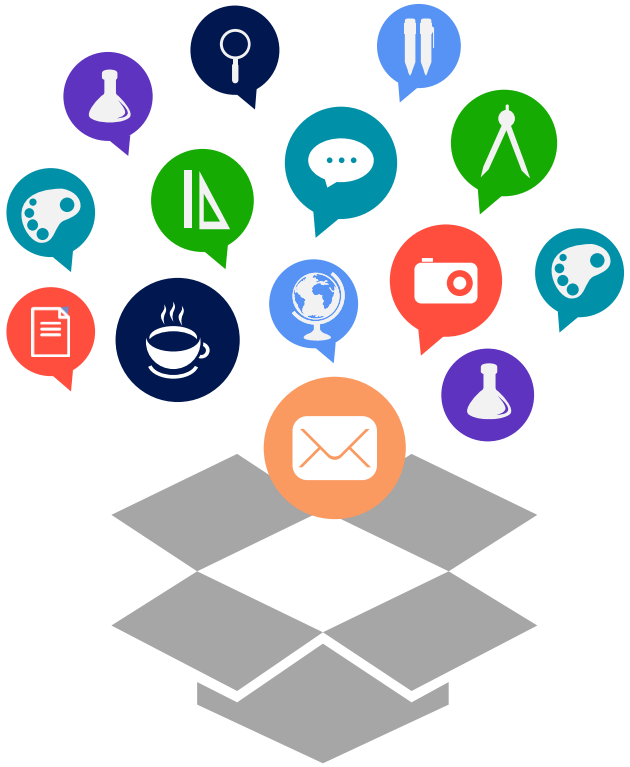
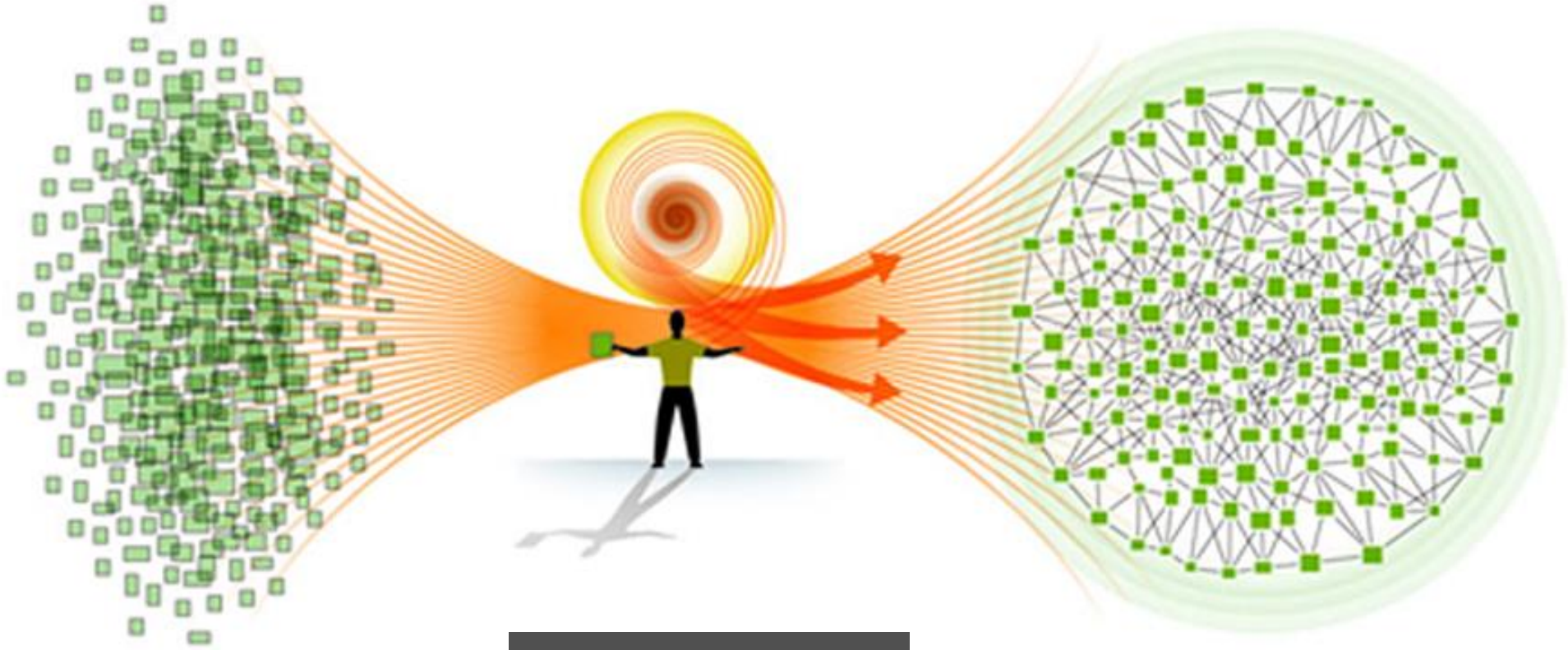


- Formulate your research topic wisely
- Discover emerging trends
  increase your chances to succeed in getting research grants
- Identify potential collaborators/ partners
- Identify high-impact journals to publish your work



Web of Science

Web of Science helps to
organize information into knowledge network.

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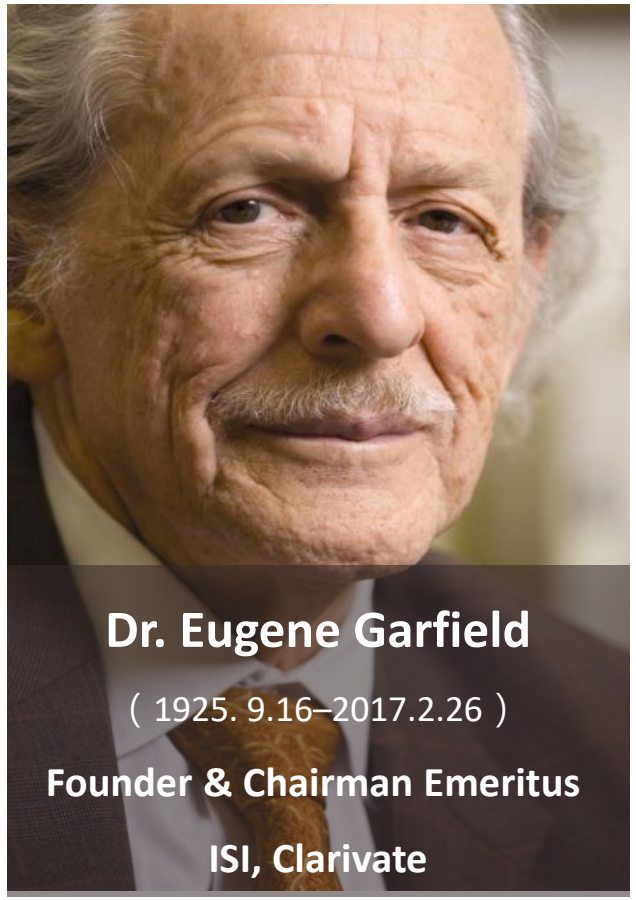
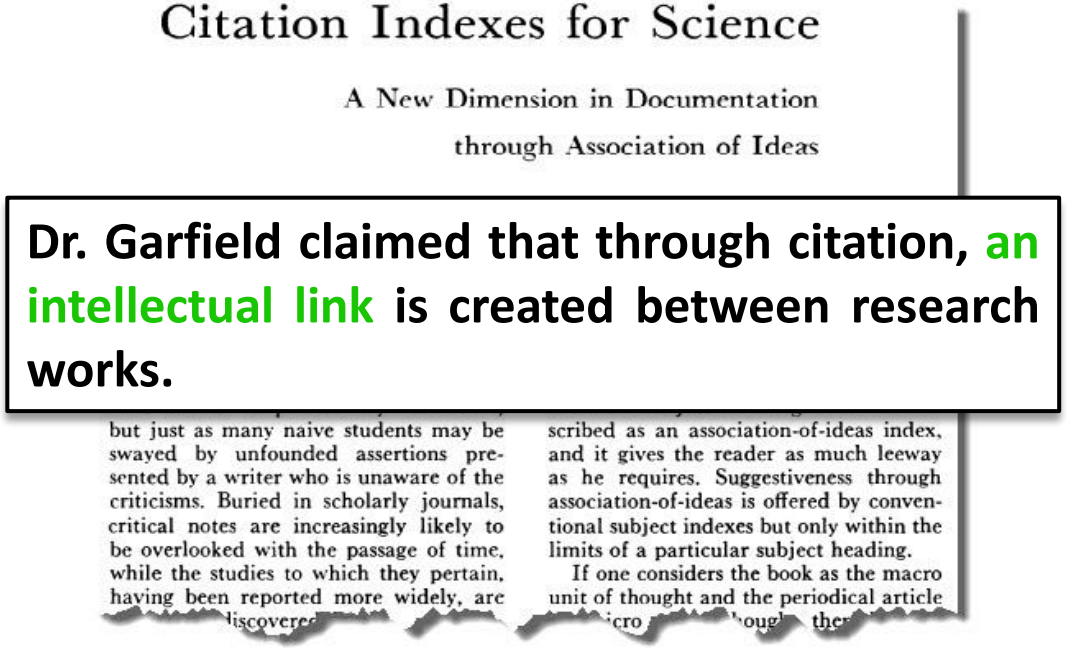
CORE VALUE of Web of Science: Citation Index



The origins of a citation index began in 1955 with the publishing of a groundbreaking paper in journal Science by Dr. Eugene Garfield.



Citation Indexes for Science

A New Dimension in Documentation through Association of Ideas

but just as many naive students may be swayed by unfounded assertions presented by a writer who is unaware of the criticisms. Buried in scholarly journals, critical notes are increasingly likely to be overlooked with the passage of time, while the studies to which they pertain, having been reported more widely, are

scribed as an association-of-ideas index, and it gives the reader as much leeway as he requires. Suggestiveness through association-of-ideas is offered by conventional subject indexes but only within the limits of a particular subject heading.

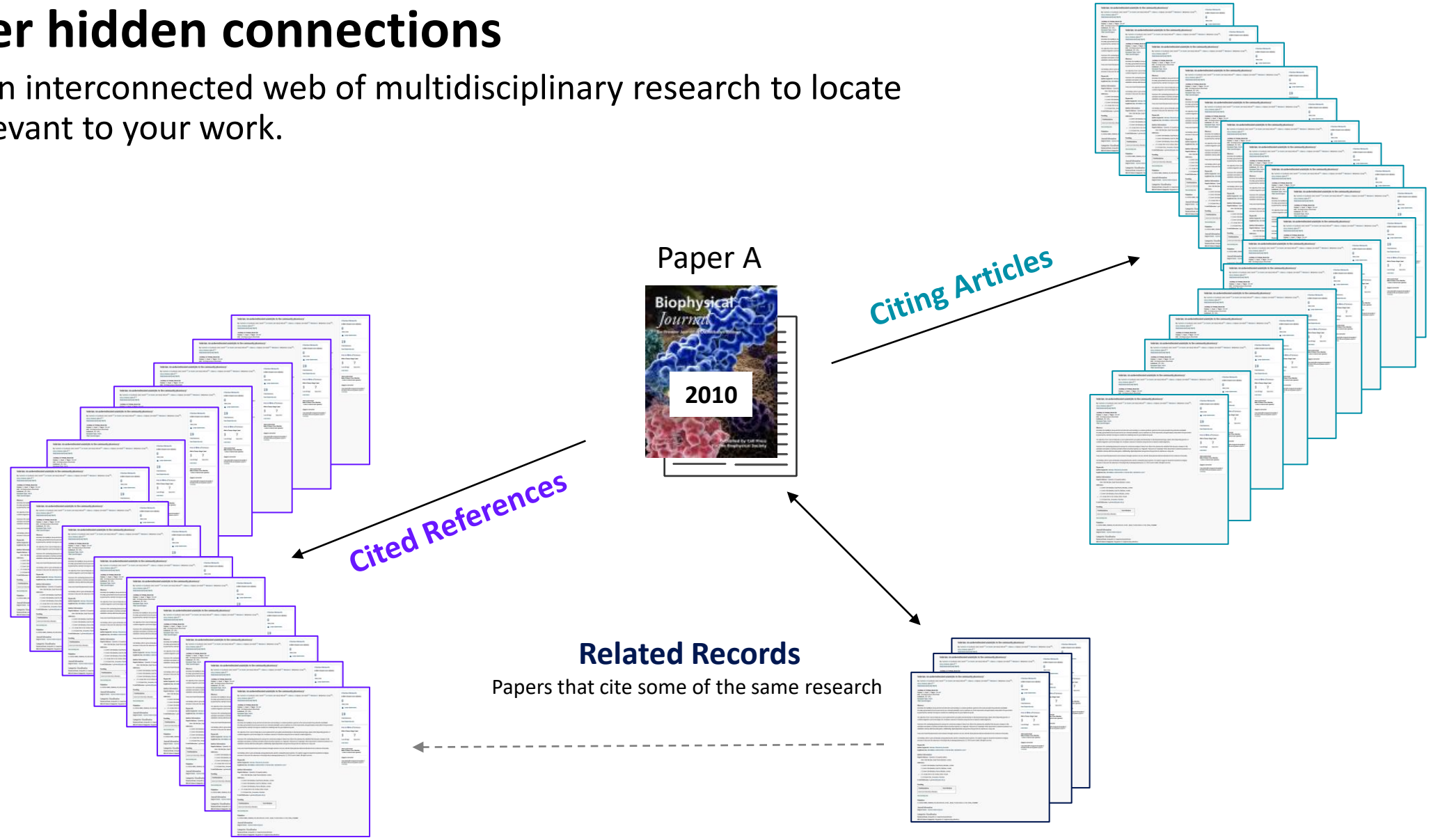
If one considers the book as the macro unit of thought and the periodical article

Dr. Garfield claimed that through citation, an intellectual link is created between research works.

Web of Science Group

Uncover hidden connections

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



How to start your research?

Have you ever faced the problems like…

- The most **influential** research direction ?
- How to **follow the research updates**?
- How to **manage** your references ?
- How to write papers **efficiently**?
- How to **select the right journal to publish papers?**

Information Over Loading!

Valuable? Relevant? High Impact?

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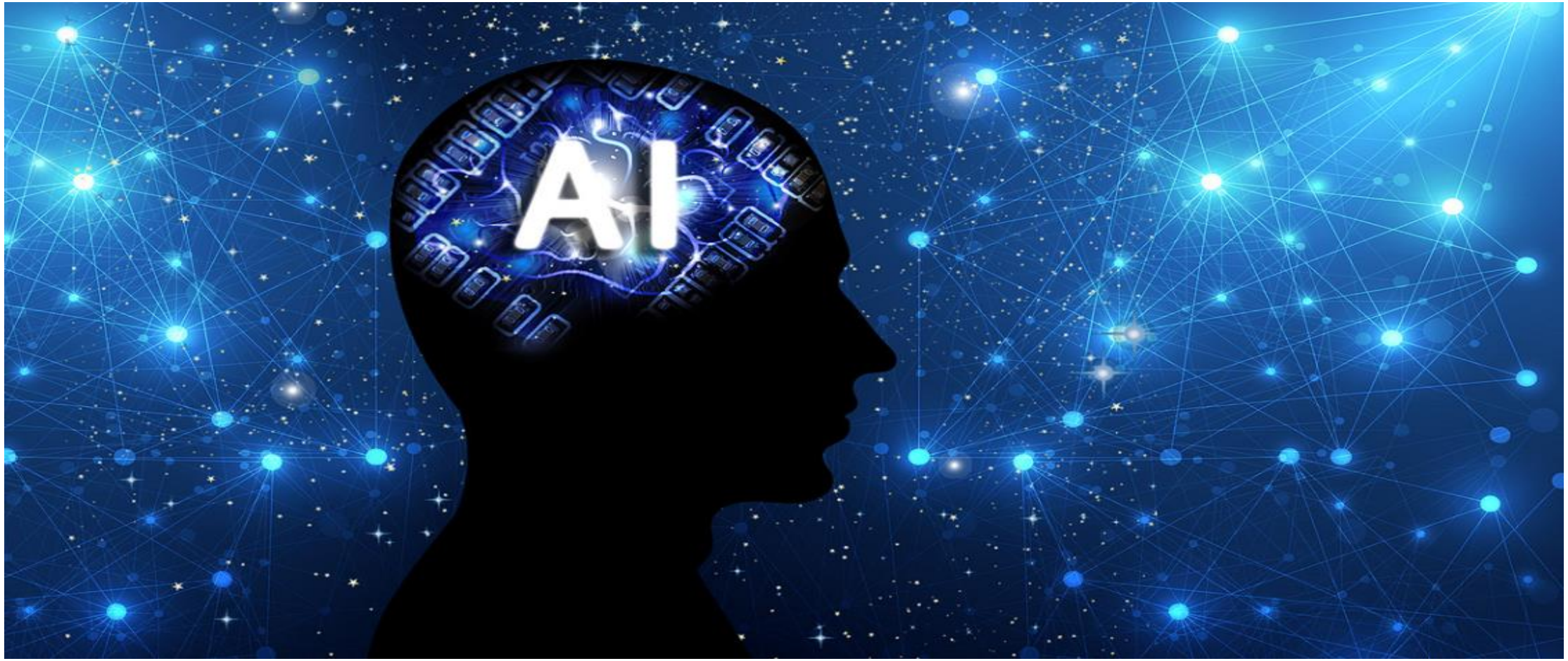
Deep Learning



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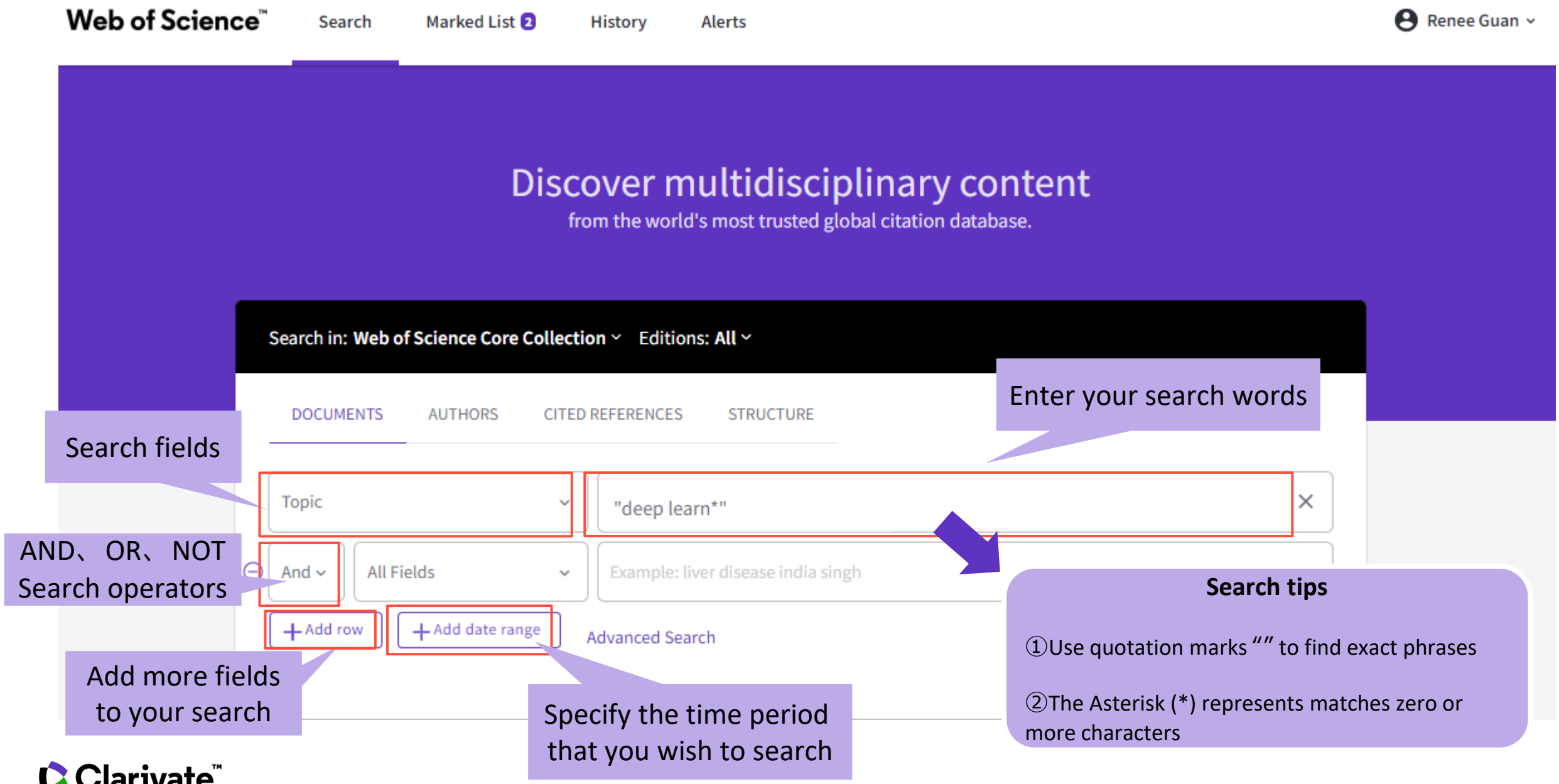

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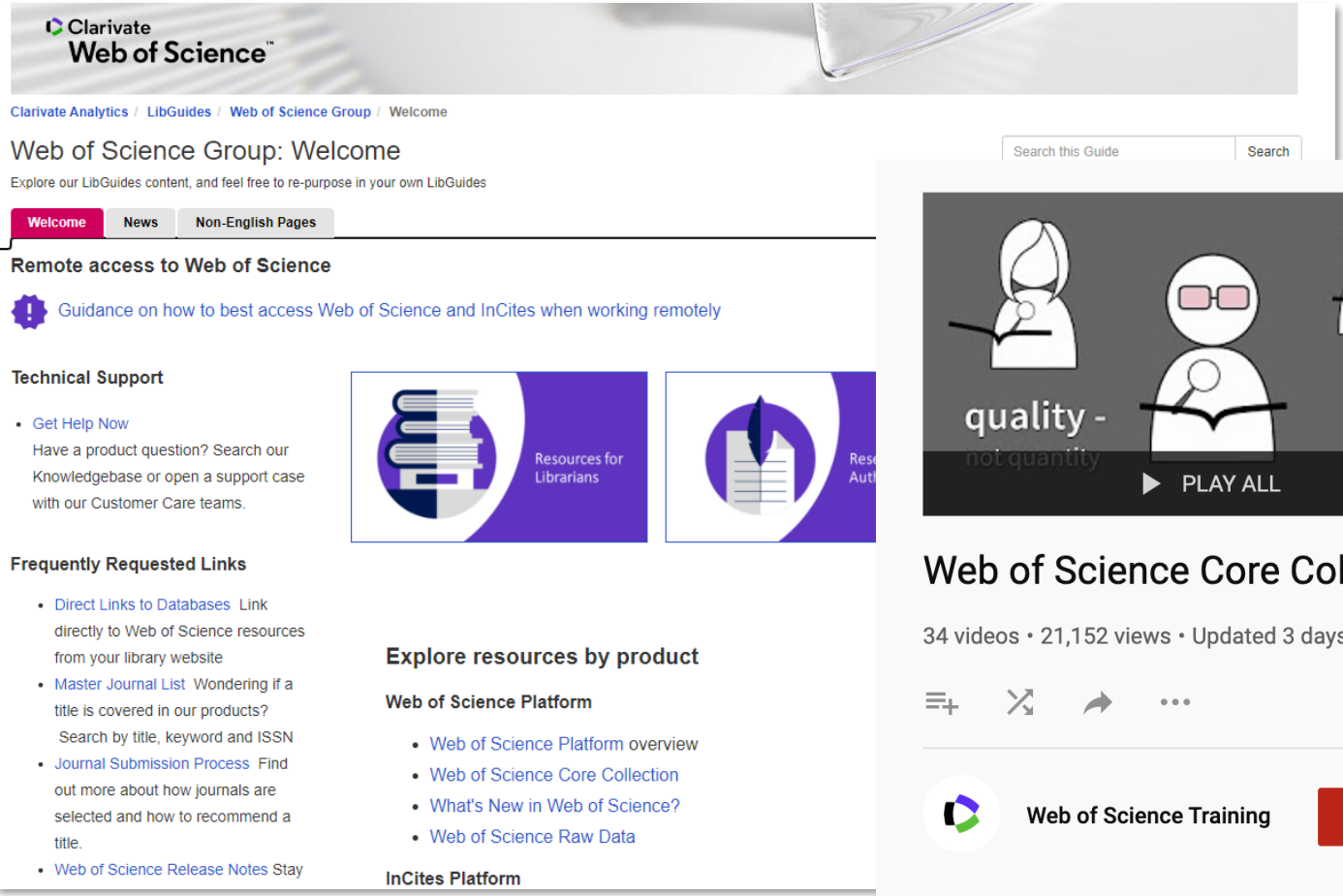

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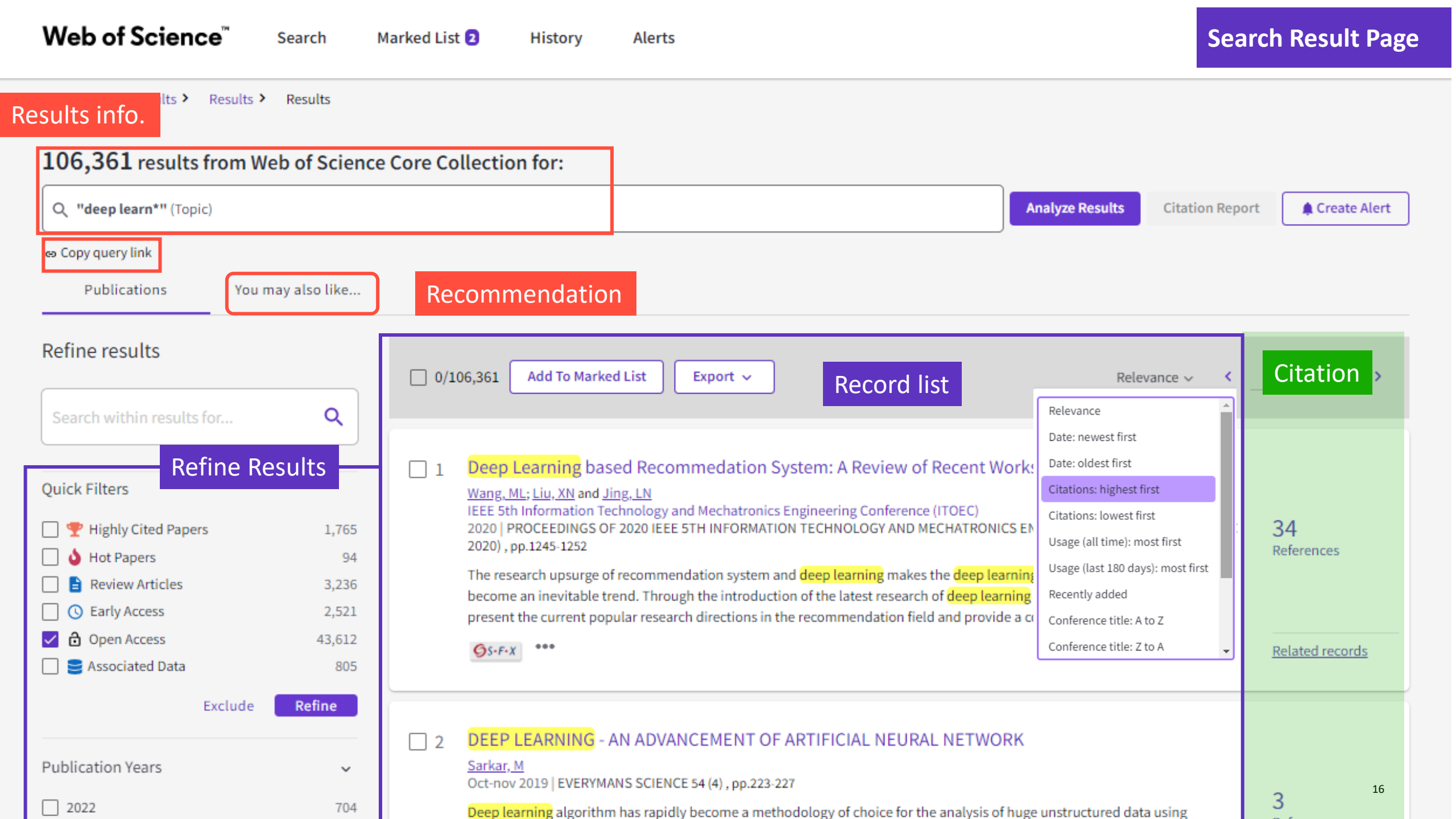
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Highly Cited Papers 1,765
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Publication Years
2022 704
0/106,361
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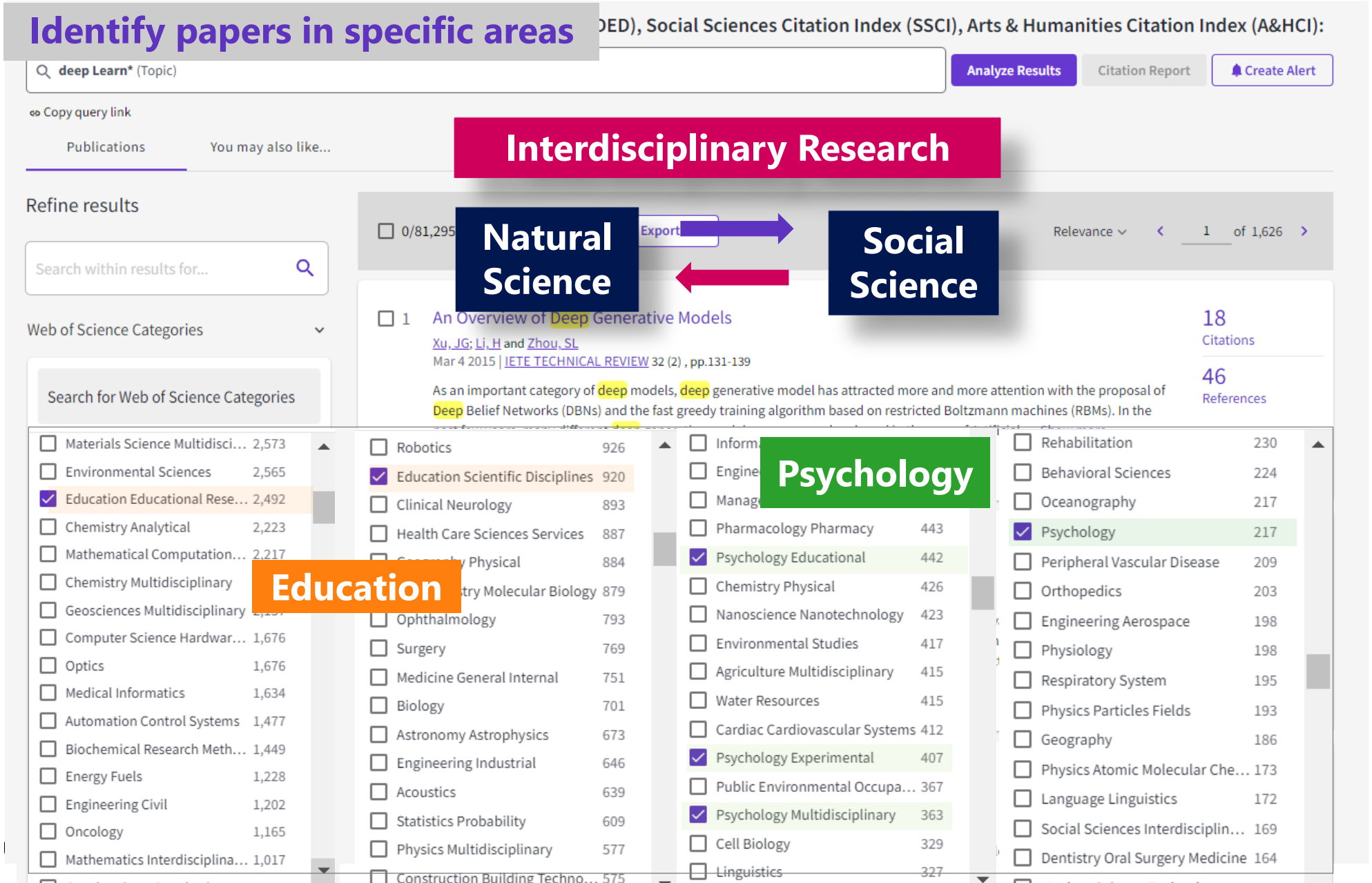

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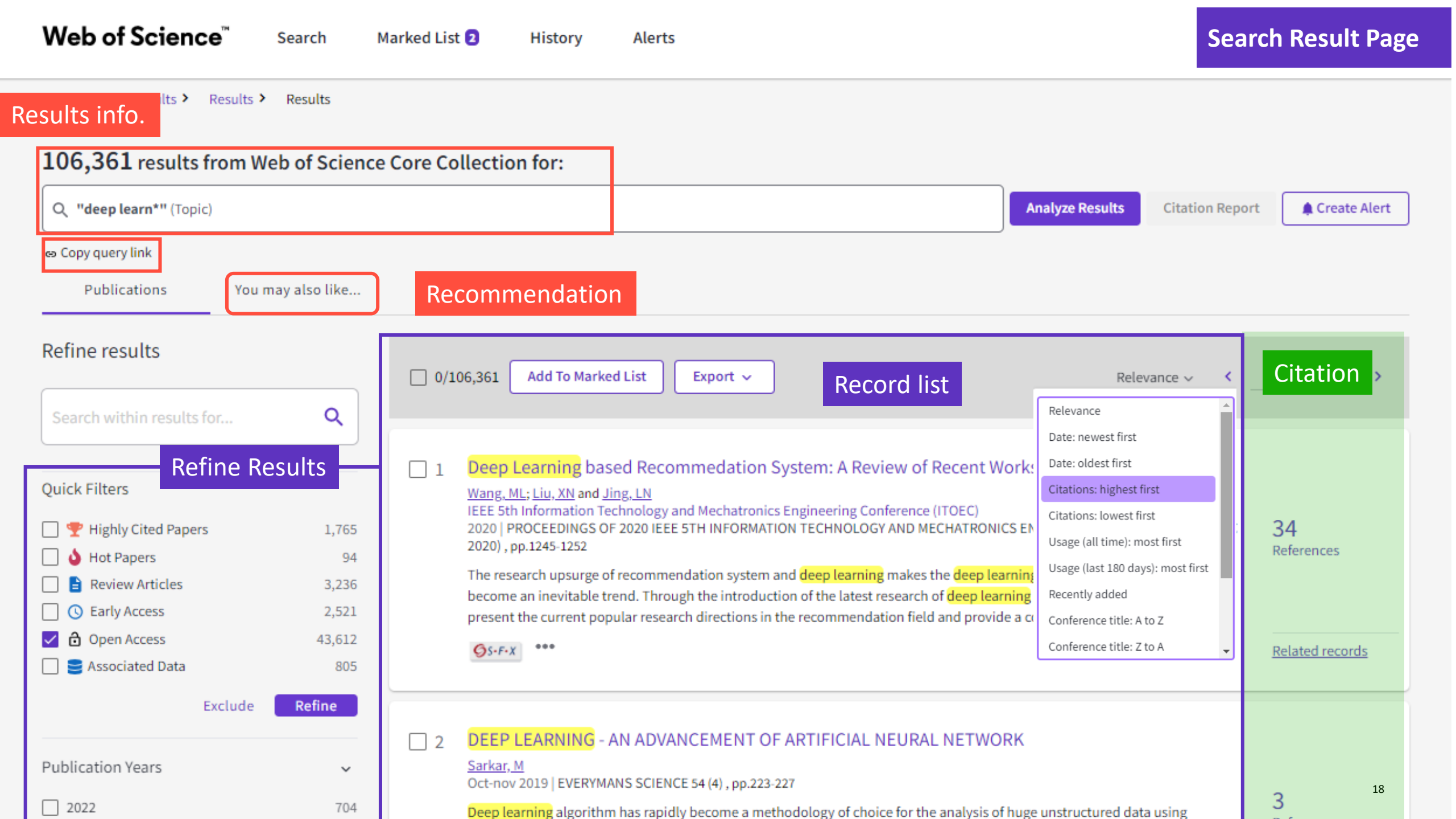
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present the current popular research directions in the recommendation field and provide a c
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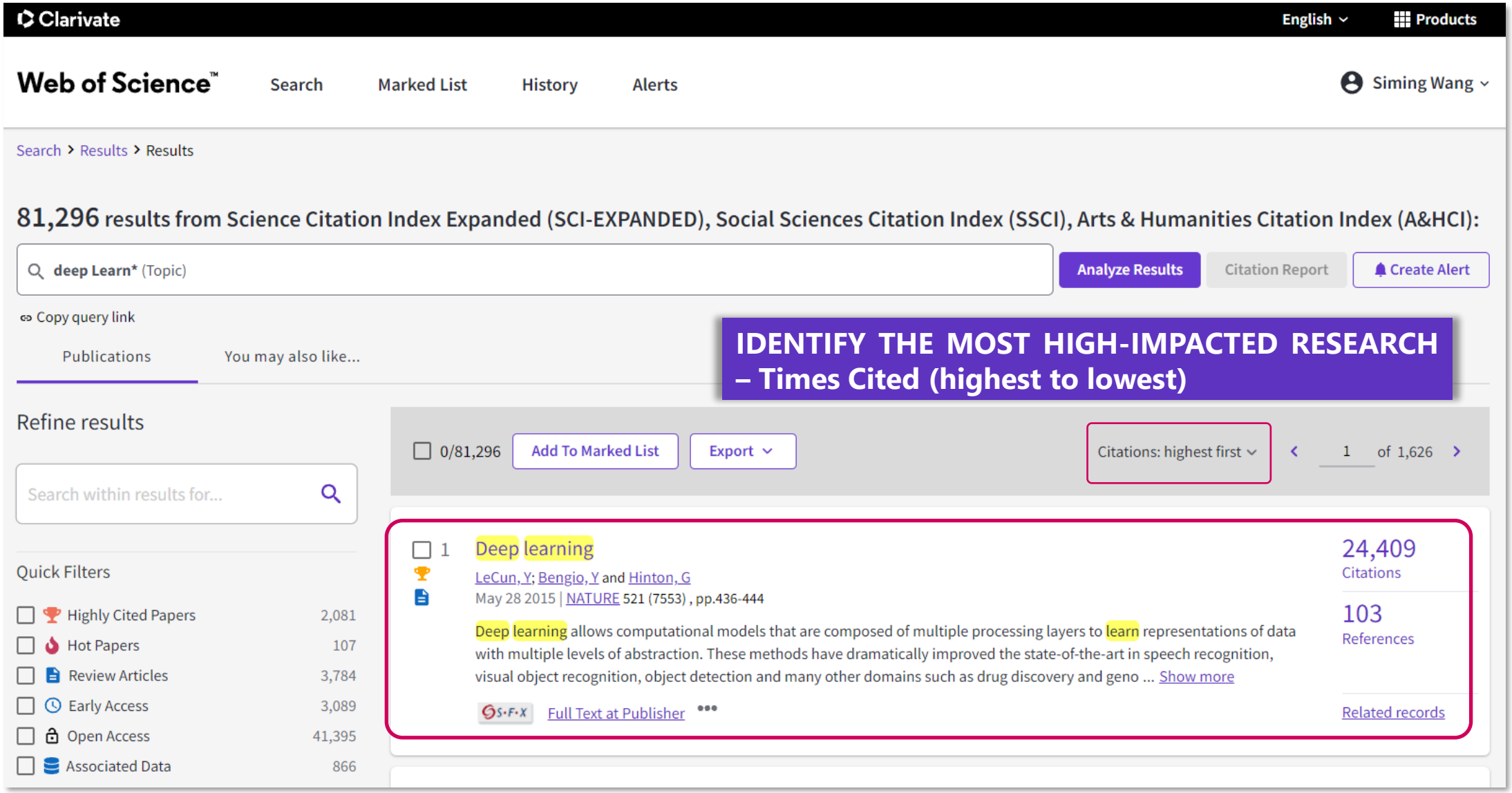

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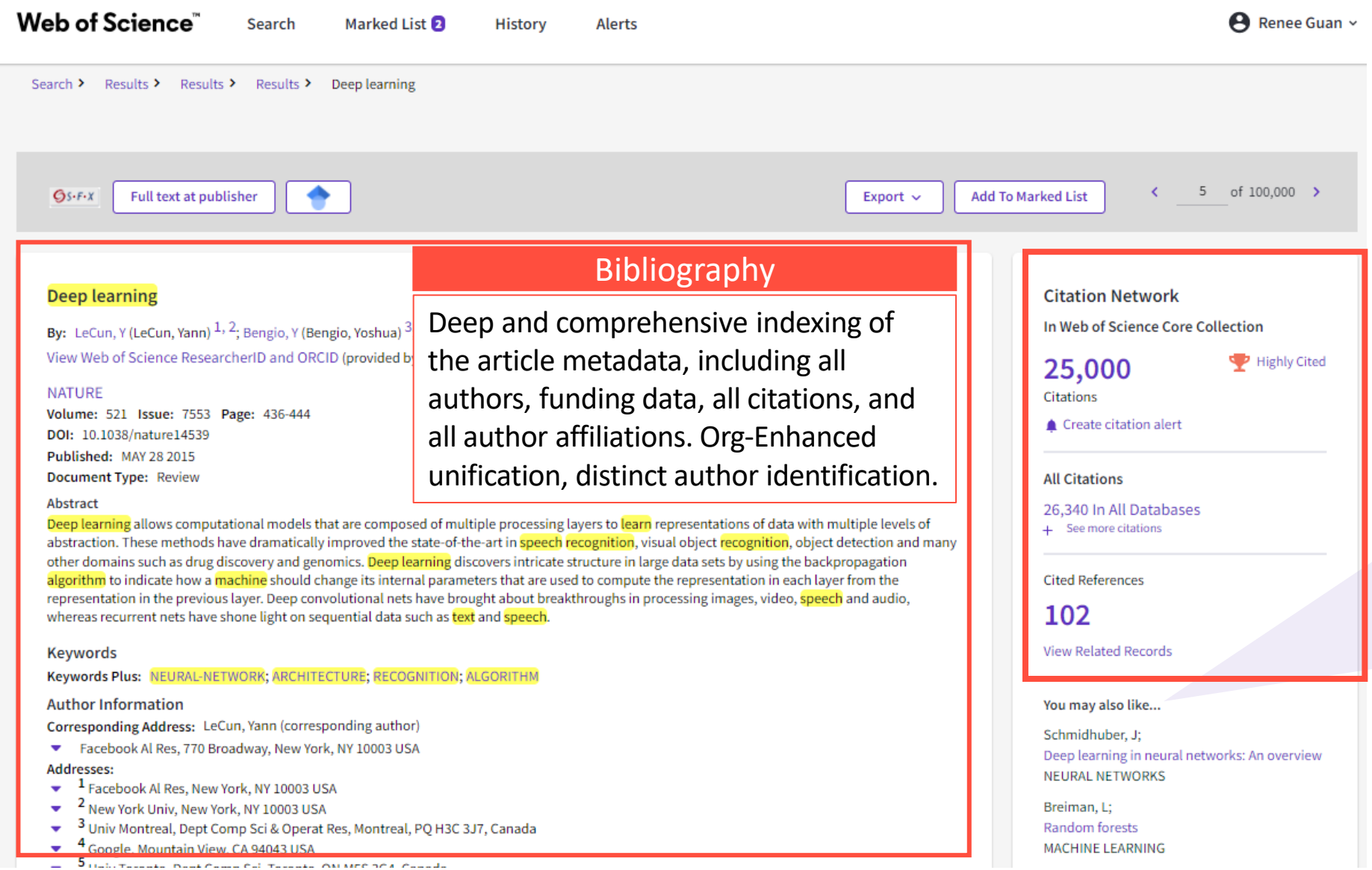

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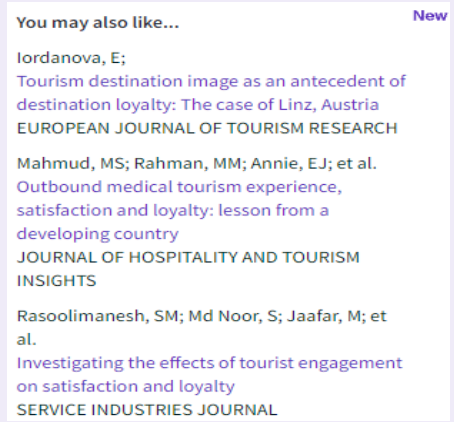

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Deep learning

By: LeCun, Y (LeCun, Yann)

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NATURE

Volume: 521 Issue: 7553

DOI: 10.1038/nature14539

Published: MAY 28 2015

Document Type: Review

Abstract

Deep learning allows compu
abstraction. These methods
other domains such as drug
algorithm to indicate how a
representation in the previou
whereas recurrent nets have

Keywords

Keywords Plus: NEURAL-NE

Author Information

Corresponding Address: Le

Facebook AI Res, 770 B

Addresses:

1 Facebook AI Res, New

2 New York Univ, New Y

3 Univ Montreal, Dept C

4 Google, Mountain View, CA 94043 USA

5 Univ Toronto, Dept Comp Sci, Toronto, ON M5S 3G4, Canada

Big Three in Deep Learning:

Yann LeCun (Facebook/New York University)

Geoffrey Hinton (Google/University of Toronto)

Yoshua Bengio (University of Montreal)

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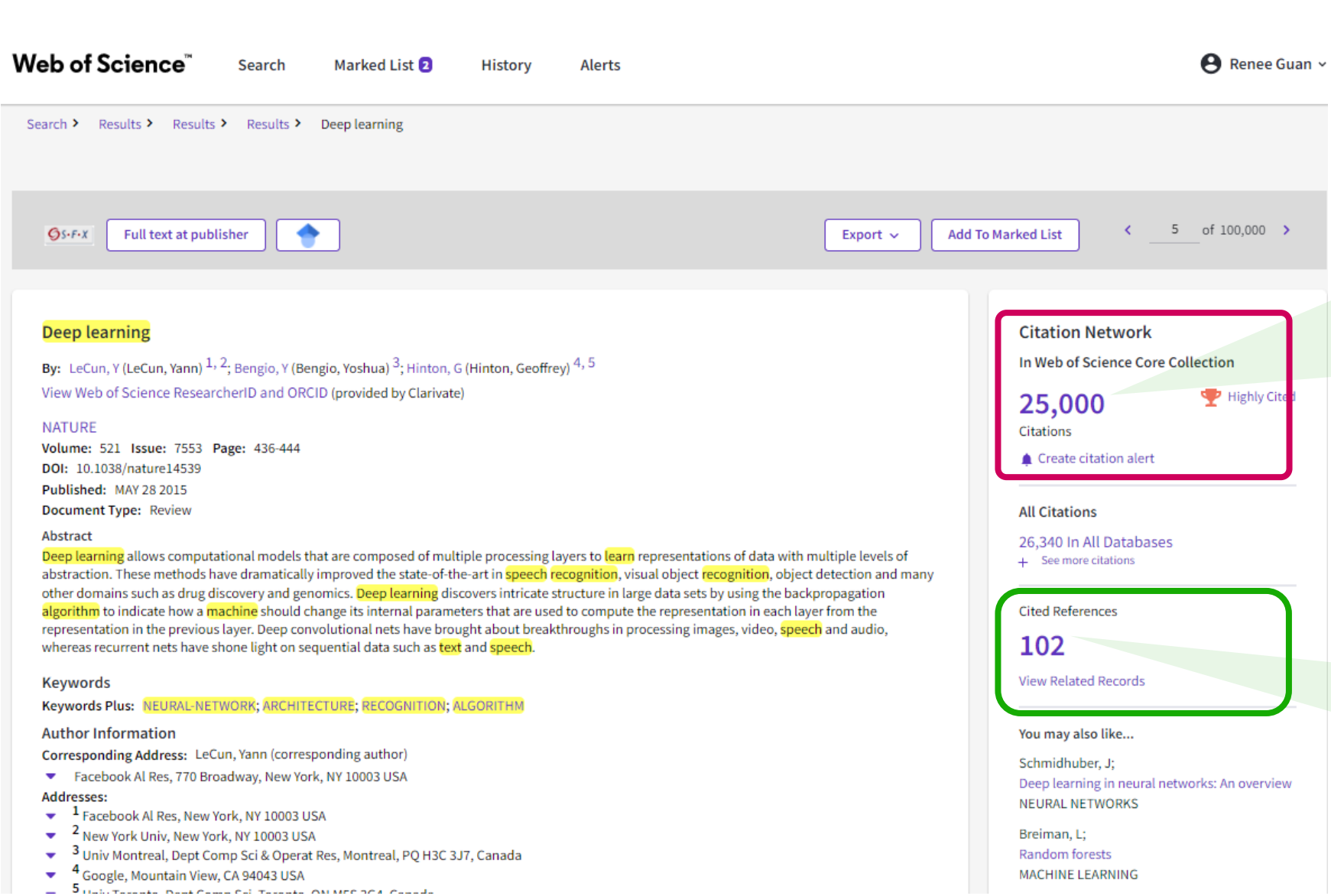

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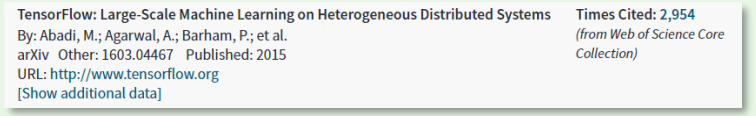

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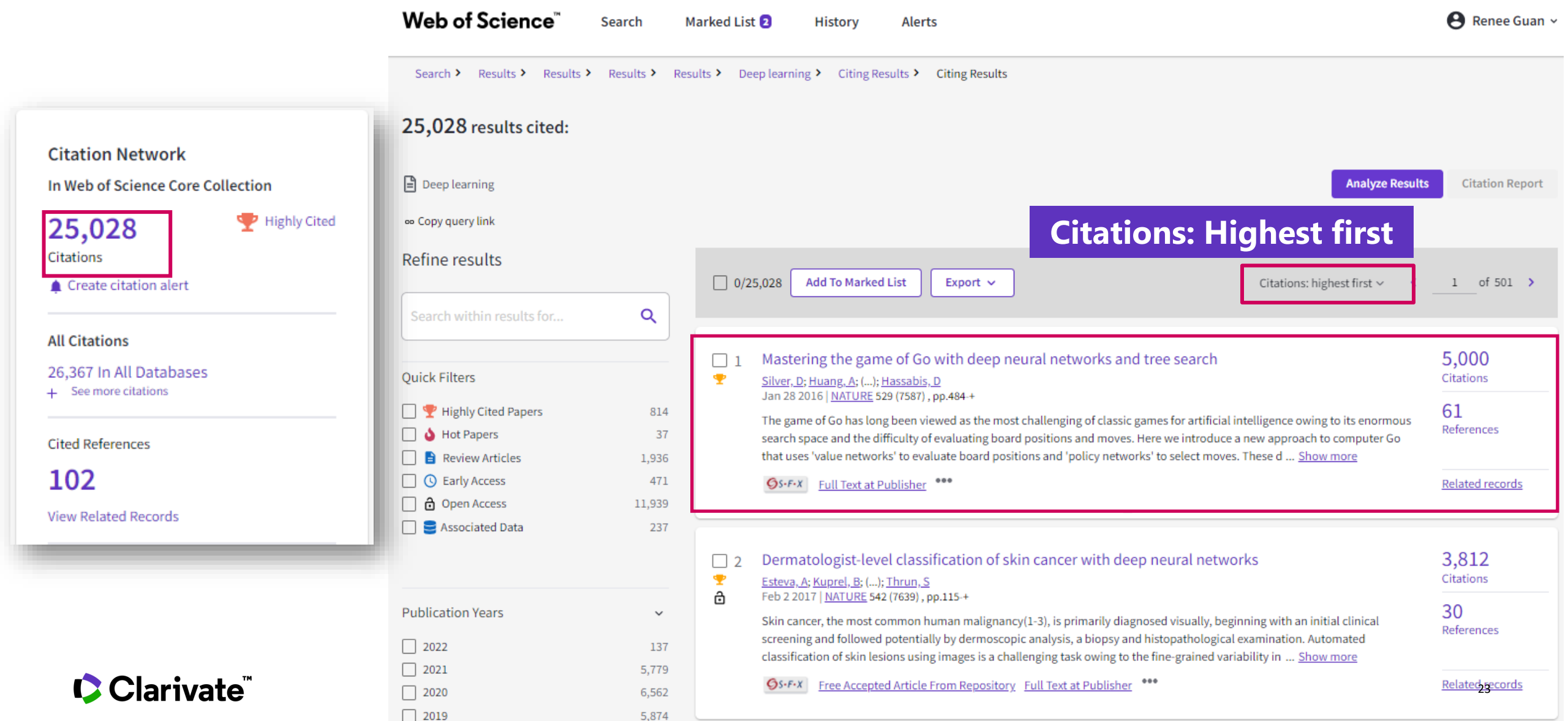

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NATURE

Volume: 529 **Issue:** 7587 **Page:** 484-+

DOI: 10.1038/nature16961

Published: JAN 28 2016

Document Type: Article

Addresses:

[1] Google DeepMind, 5 New St Sq, London EC4A 3TW, England

[2] Google, 1600 Amphitheatre Pkwy, Mountain View, CA 94043 USA

E-mail Addresses: davidsilver@google.com; demishassabis@google.com

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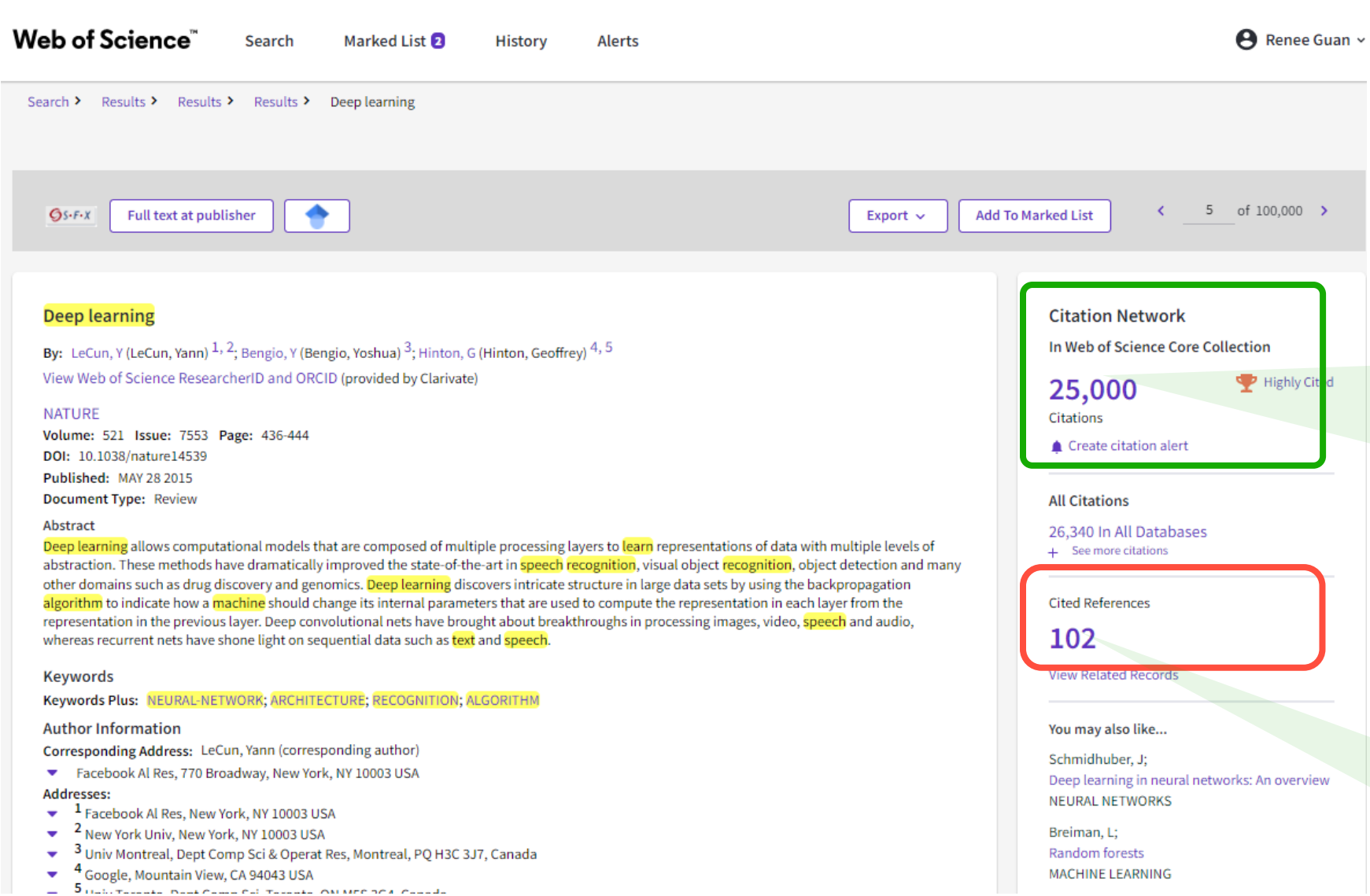

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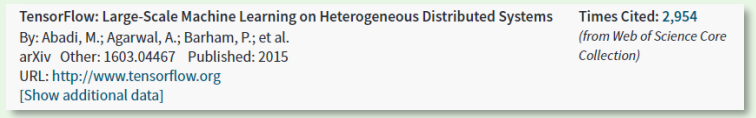

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8 Greedy layerwise training of deep networks
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2007 | P ADV NEUR INF PROC , pp.153-160
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9 Representation Learning: A Review and New Perspectives
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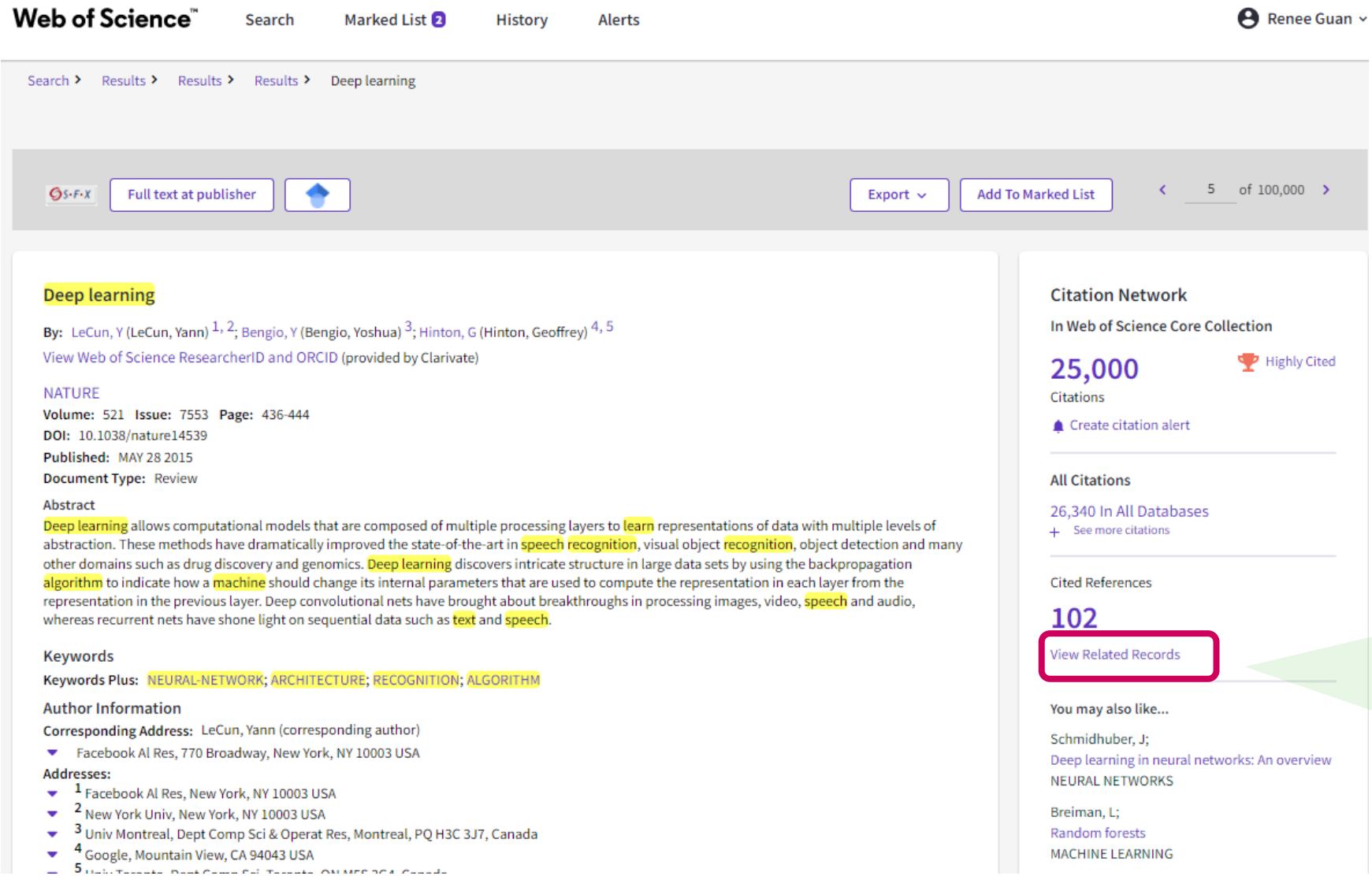

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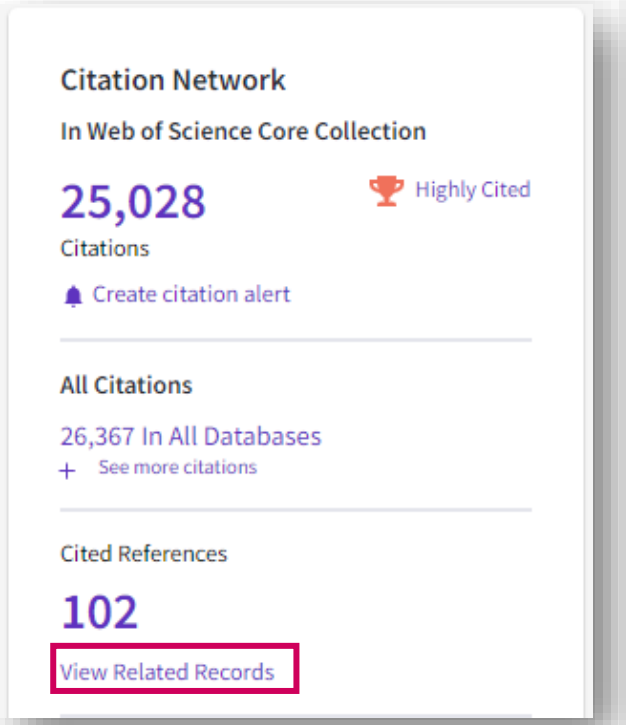

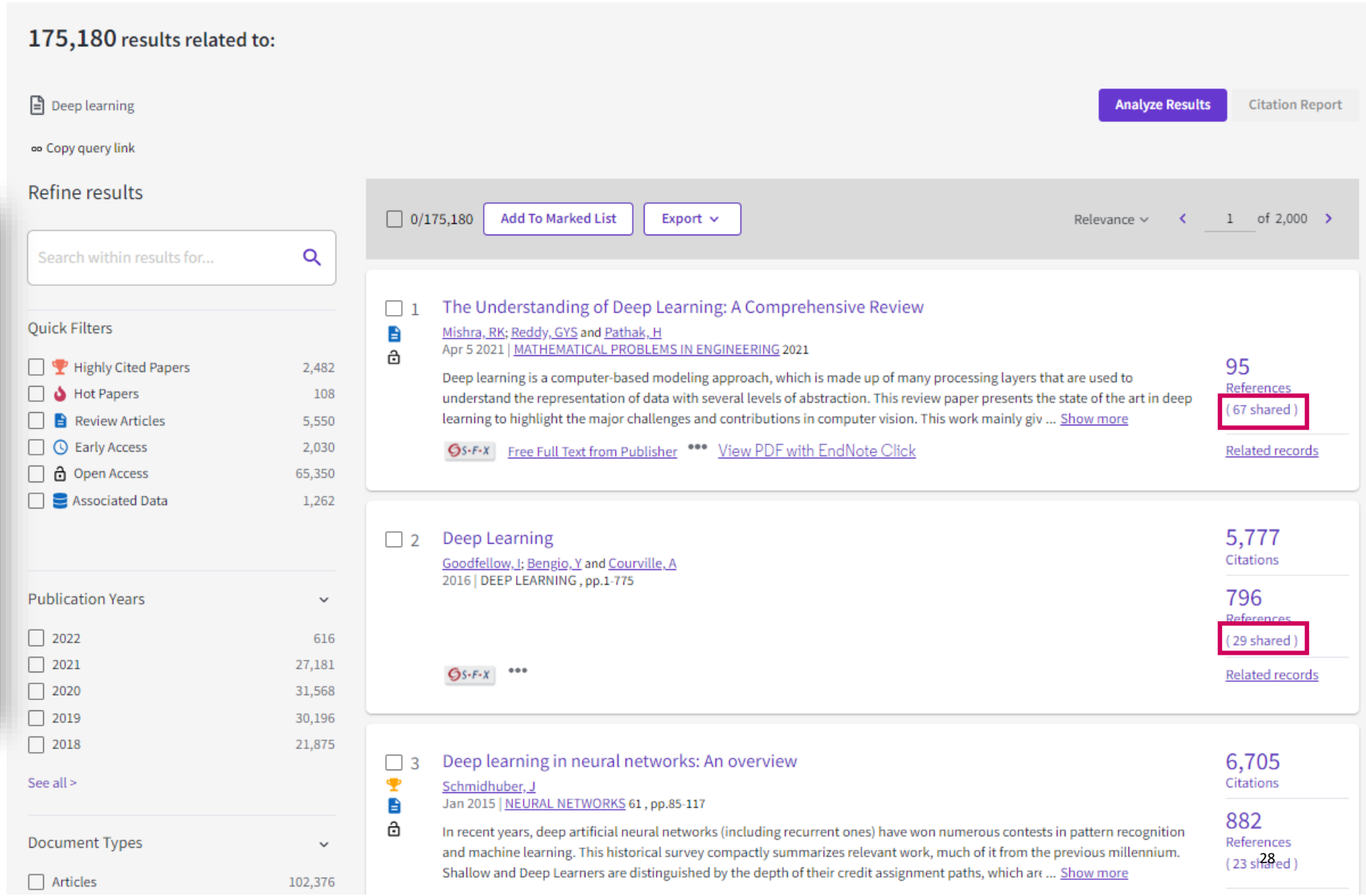

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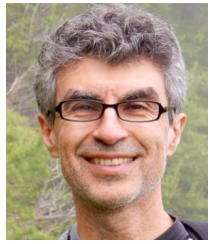

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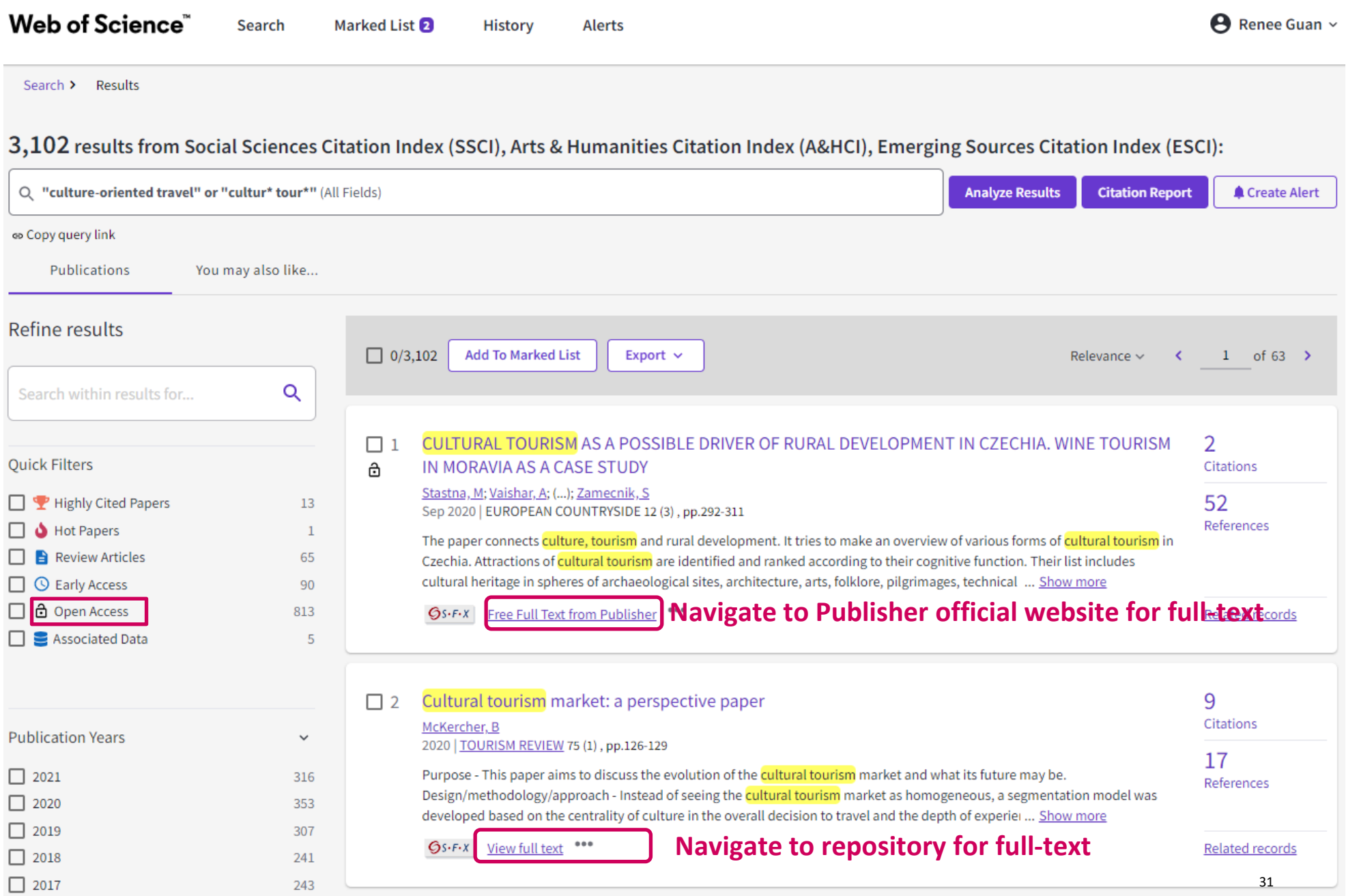

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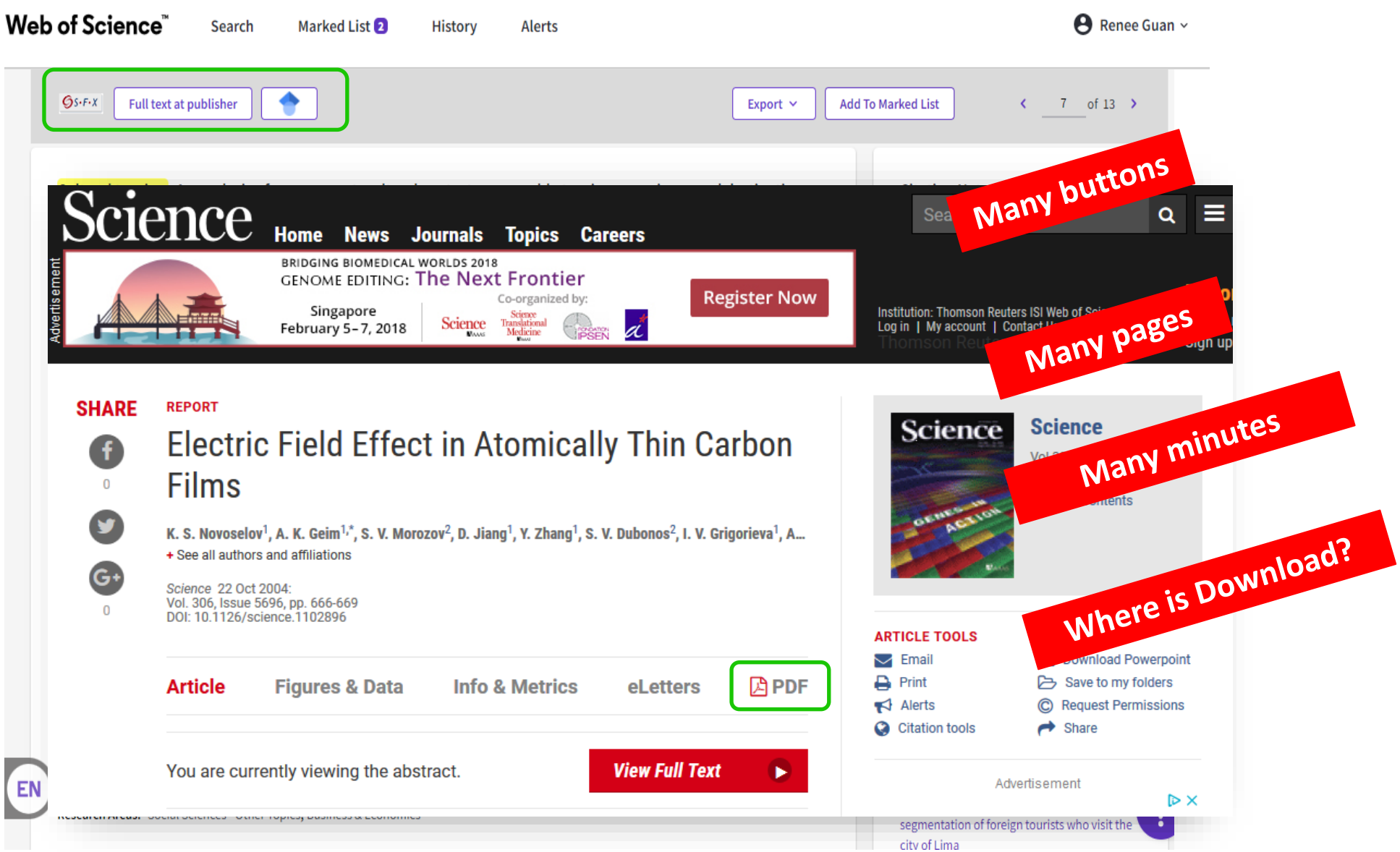

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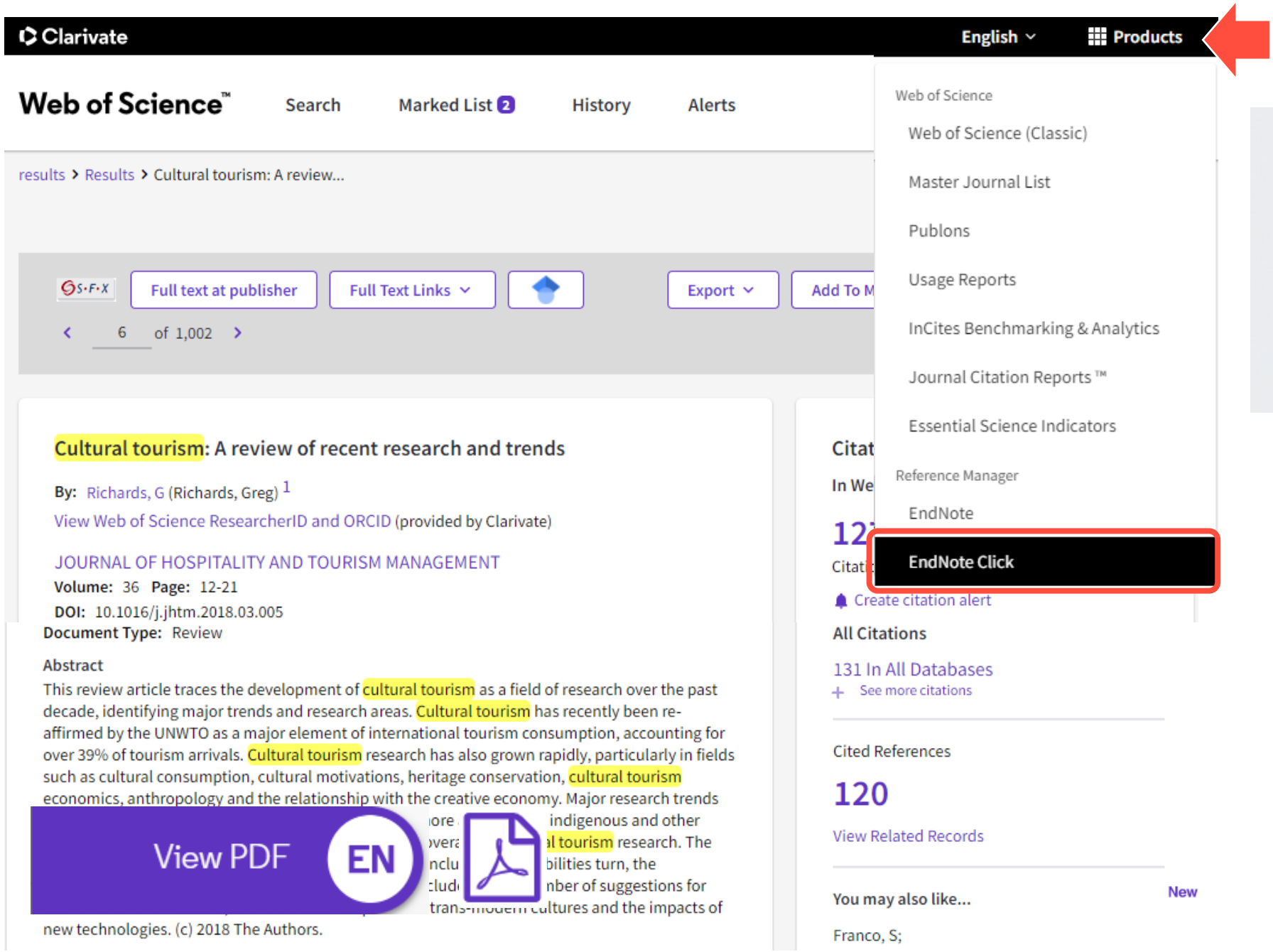

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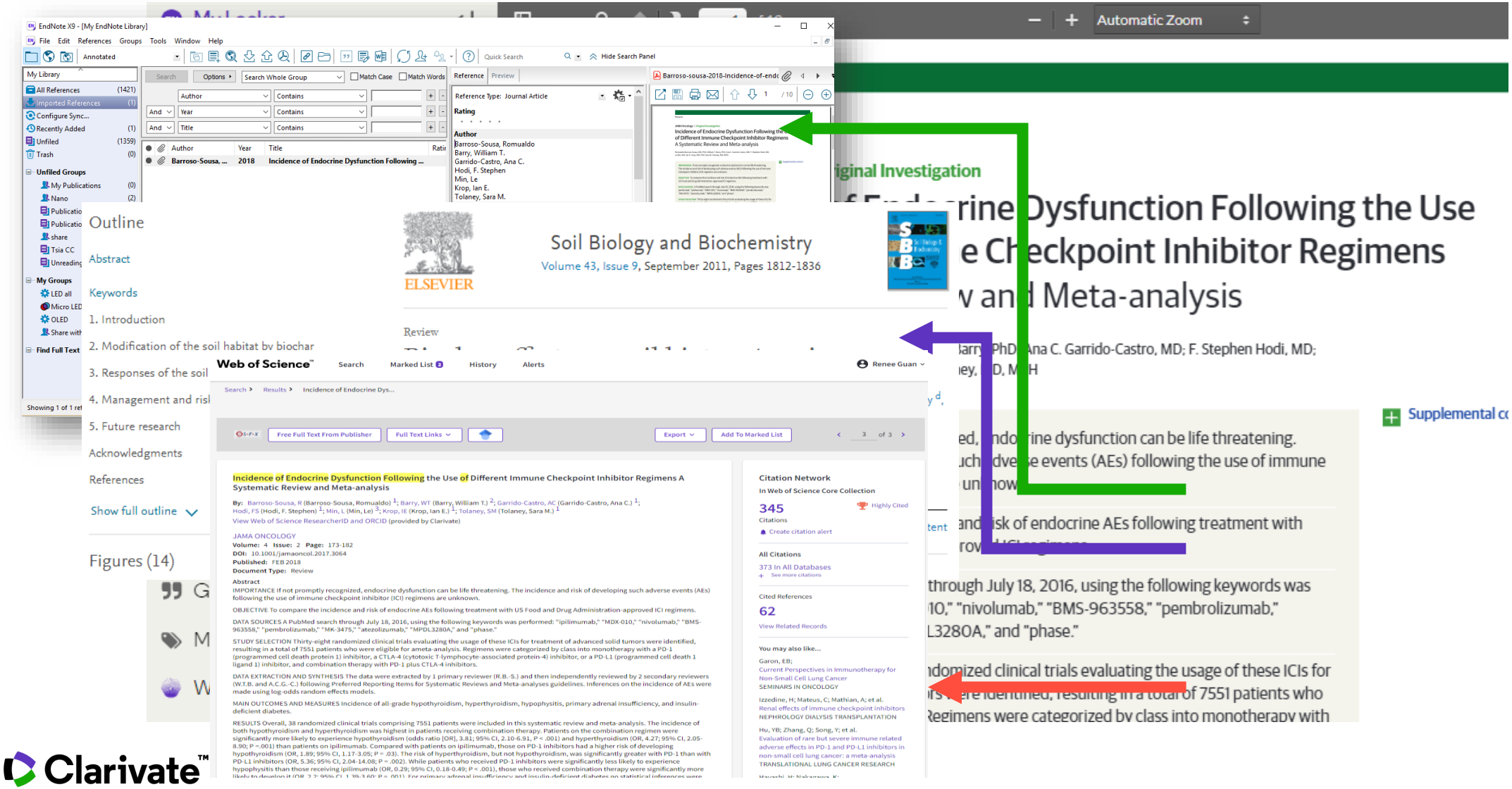
EndNote Click helps you get to your full-text PDF faster.

SUPPORTED BROWSER: Chrome Firefox Opera Edge

Benefits of using EndNote Click



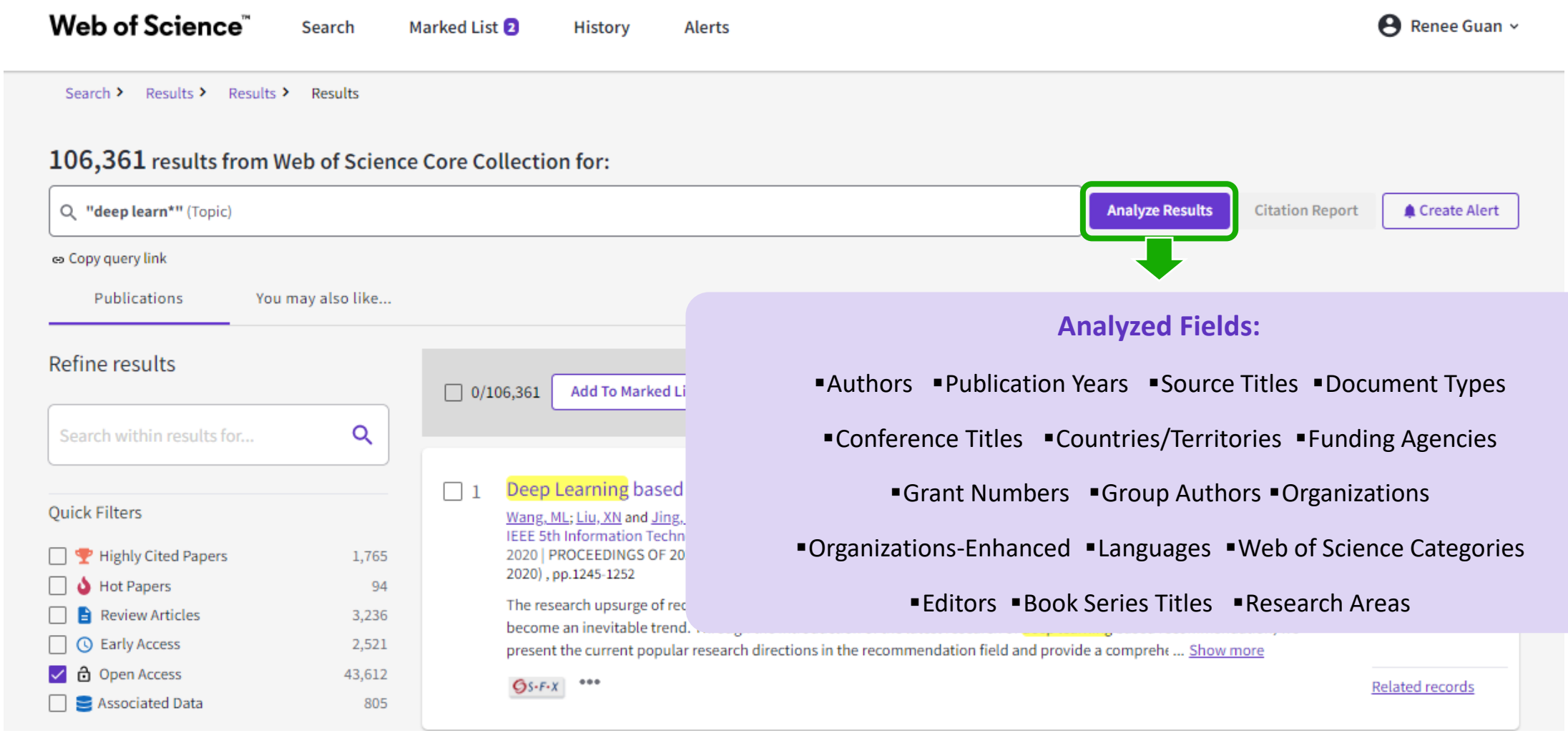
Analyze to Find Trends

Analyze Trends, Gain Insight

- Which institutions are citing this topic?
- How influential are these articles at discipline level
- What institutions are researching this topic?
- Who is funding the research that I’m interested in?
- Who the prolific authors are?
- Which journals publish research in my field?

Powerful analysis tools for trends and connections discovering

Analyze Results: Analyze research background



Analyzed Fields:

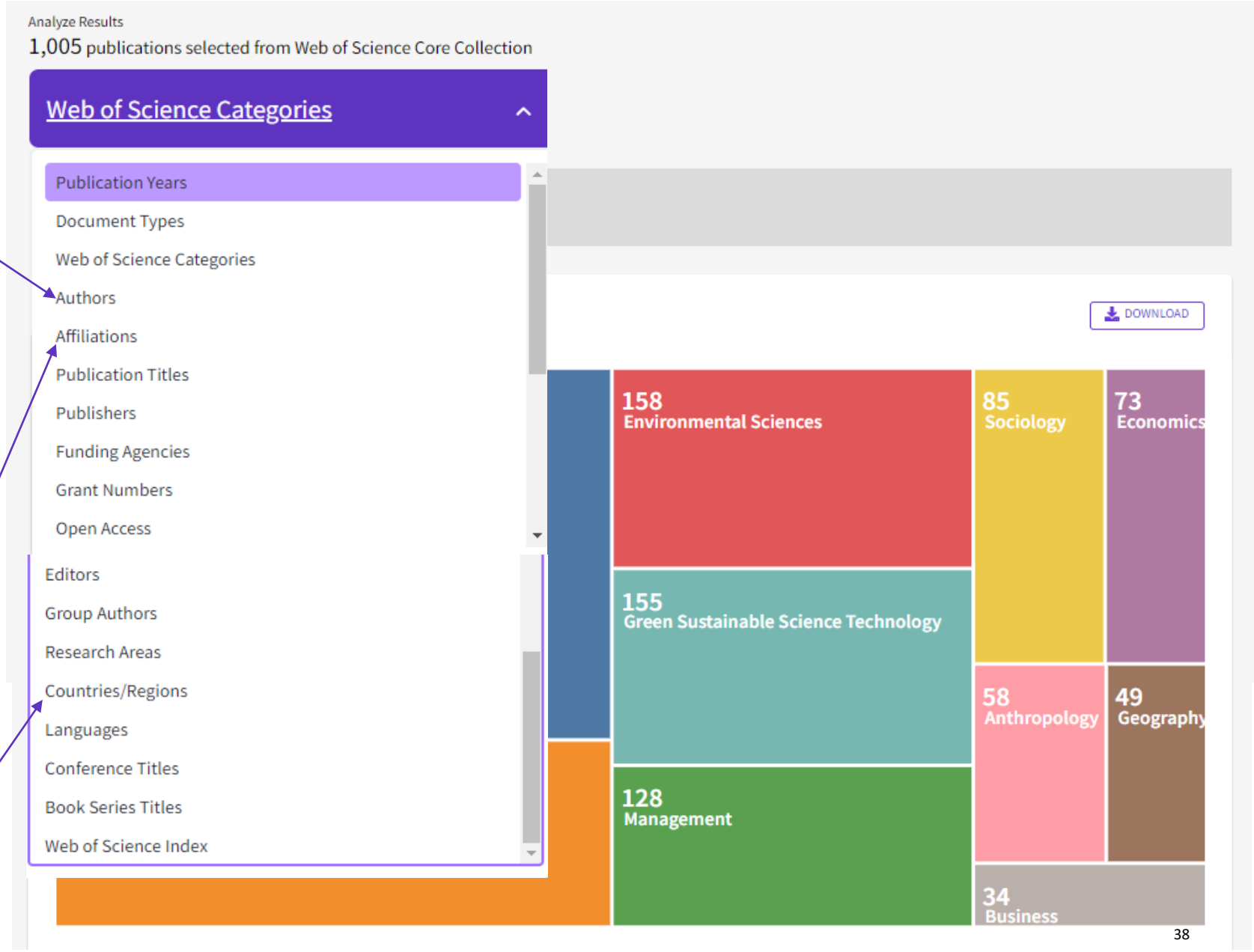
- Authors
- Publication Years
- Source Titles
- Document Types
- Conference Titles
- Countries/Territories
- Funding Agencies
- Grant Numbers
- Group Authors
- Organizations
- Organizations-Enhanced
- Languages
- Web of Science Categories
- Editors
- Book Series Titles
- Research Areas

Multiple fields

- Identify top output researchers
- Select supervisors
- Select reviewer experts
- Find potential collaborators

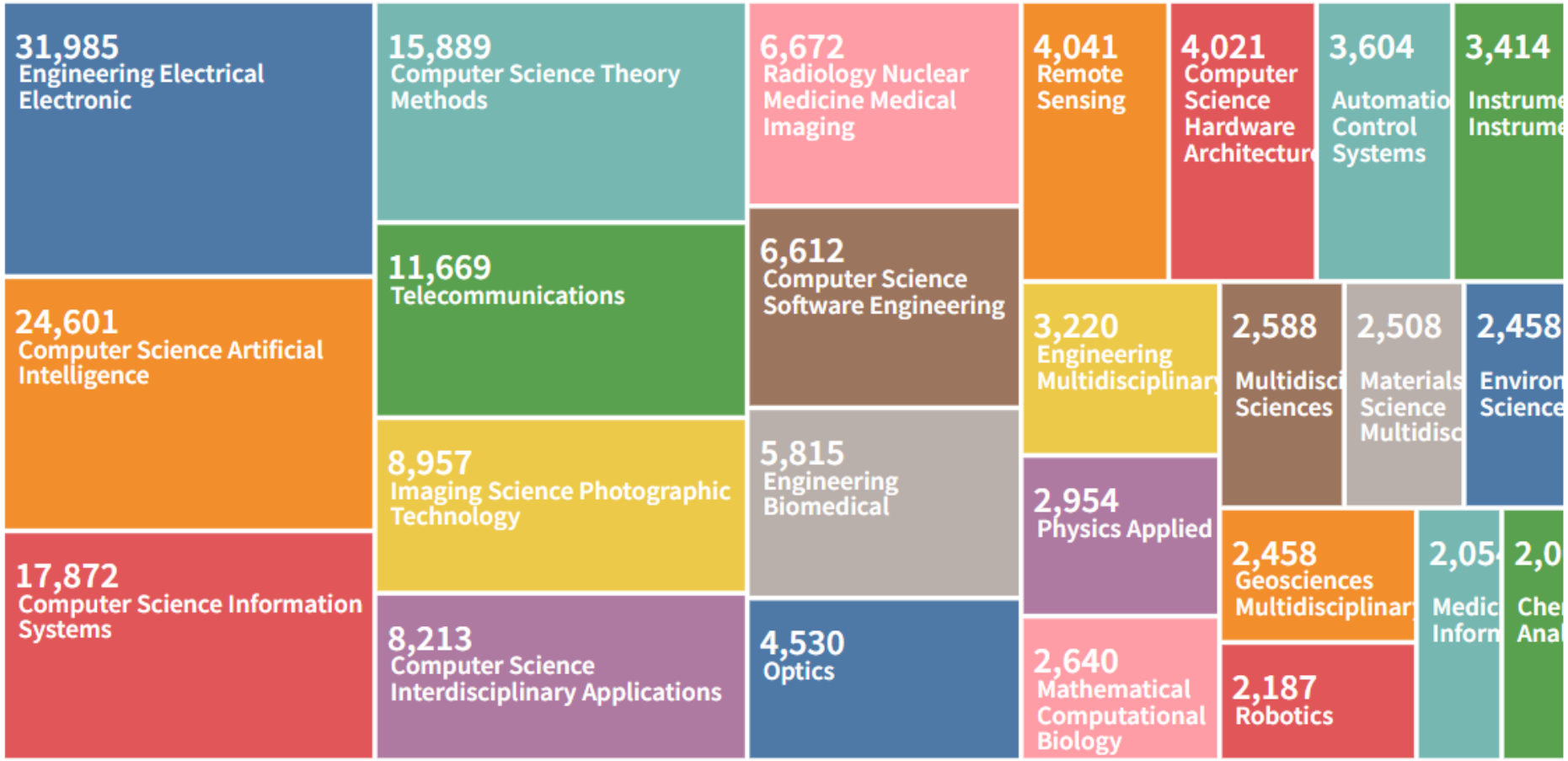
- Promote collaborations between organizations
- Pursue opportunities for deeper study and research
- Discover high productive organizations

- Discover productive countries/ territories
- Compare researches and outputs between countries/ territories



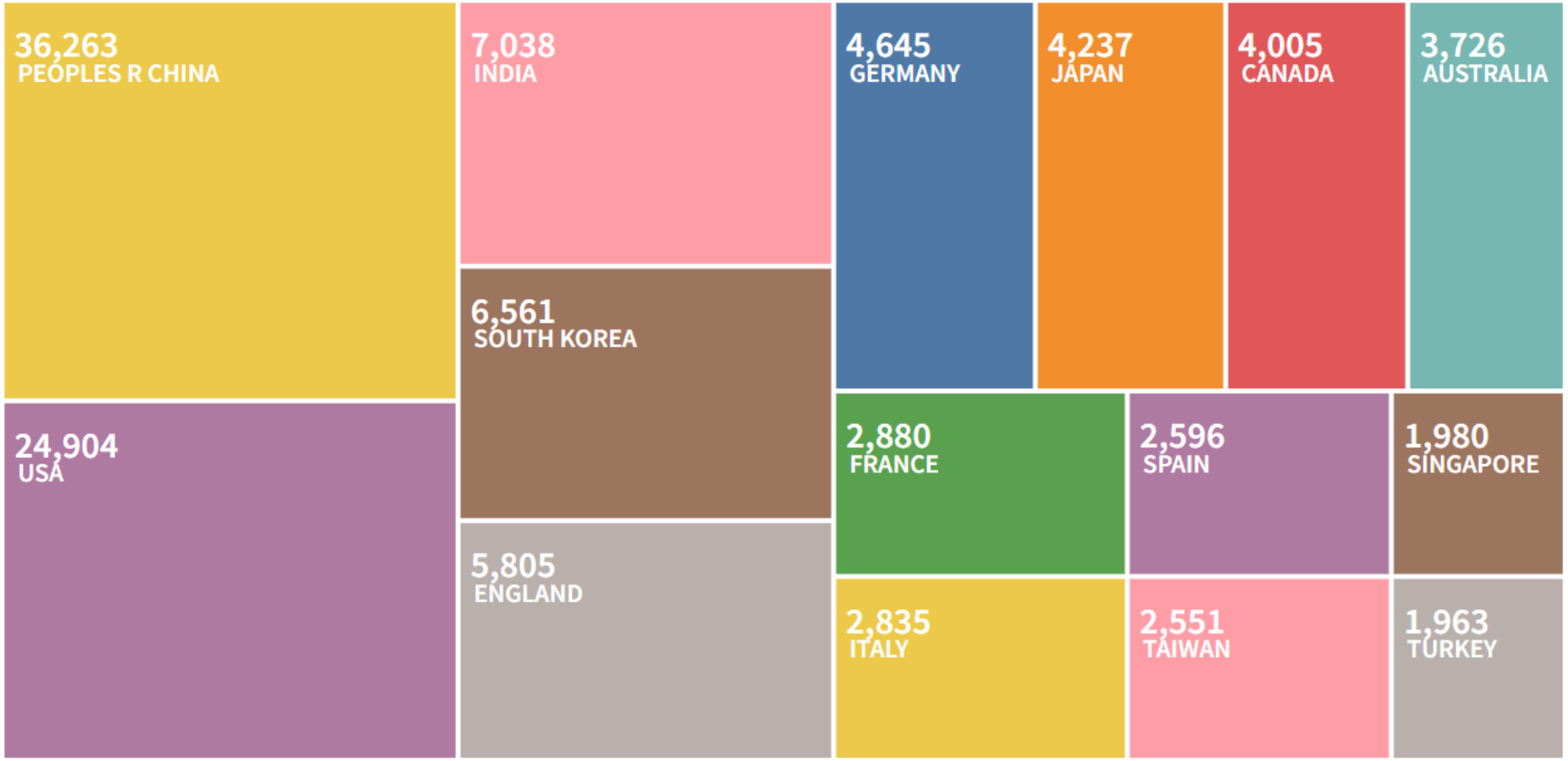
Web of Science Categories

- Detail more subjects and understand trend.
- Find out any interesting subjects and topics.



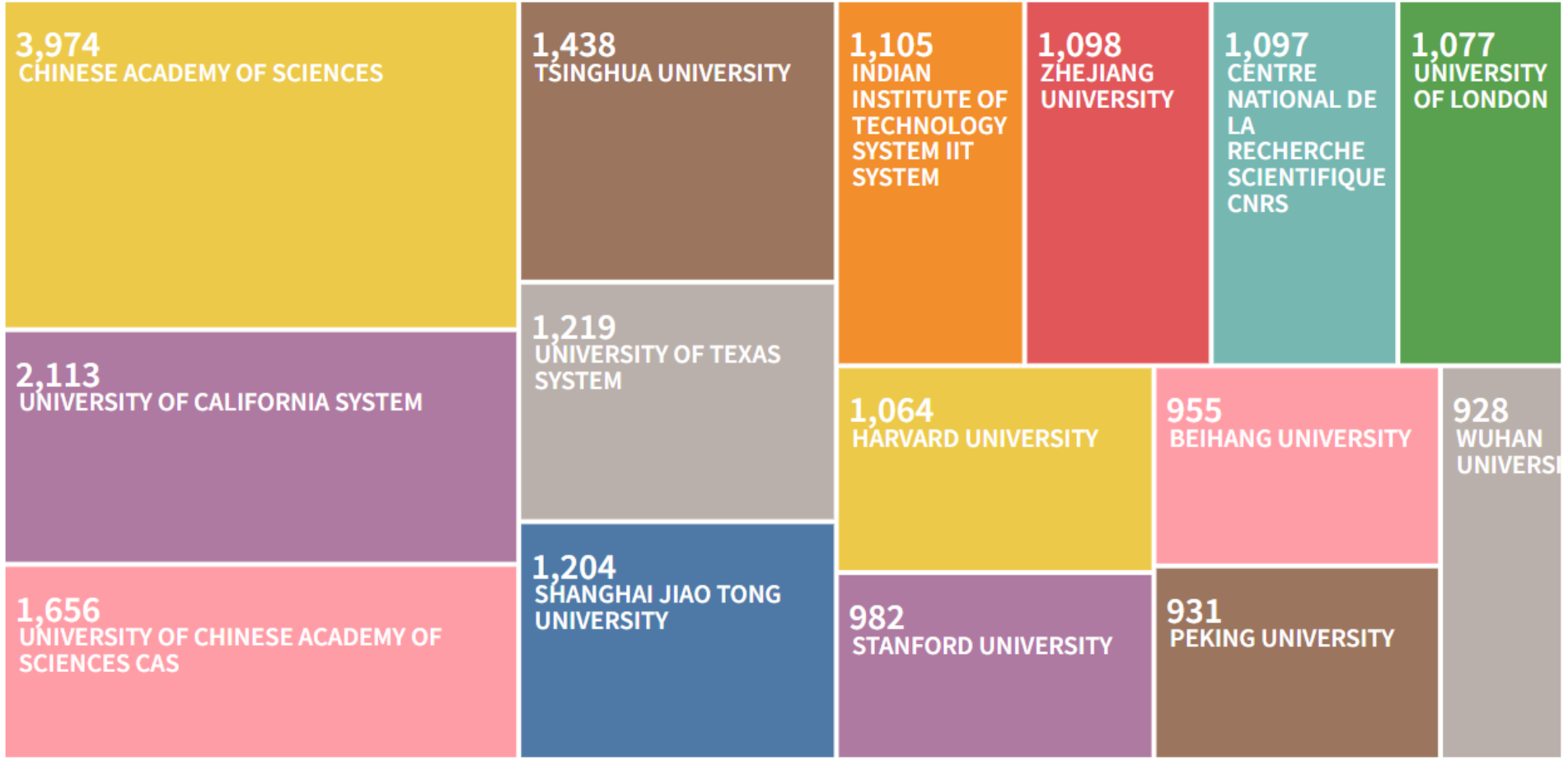
Countries/Regions

- Understand global trend
- Discover high productive countries



Affiliations

- Promote collaborations between organizations
- Pursue opportunities for deeper study and research
- Discover high productive organizations



Set up Alerts

Catch up with the latest research development with the help of WOS

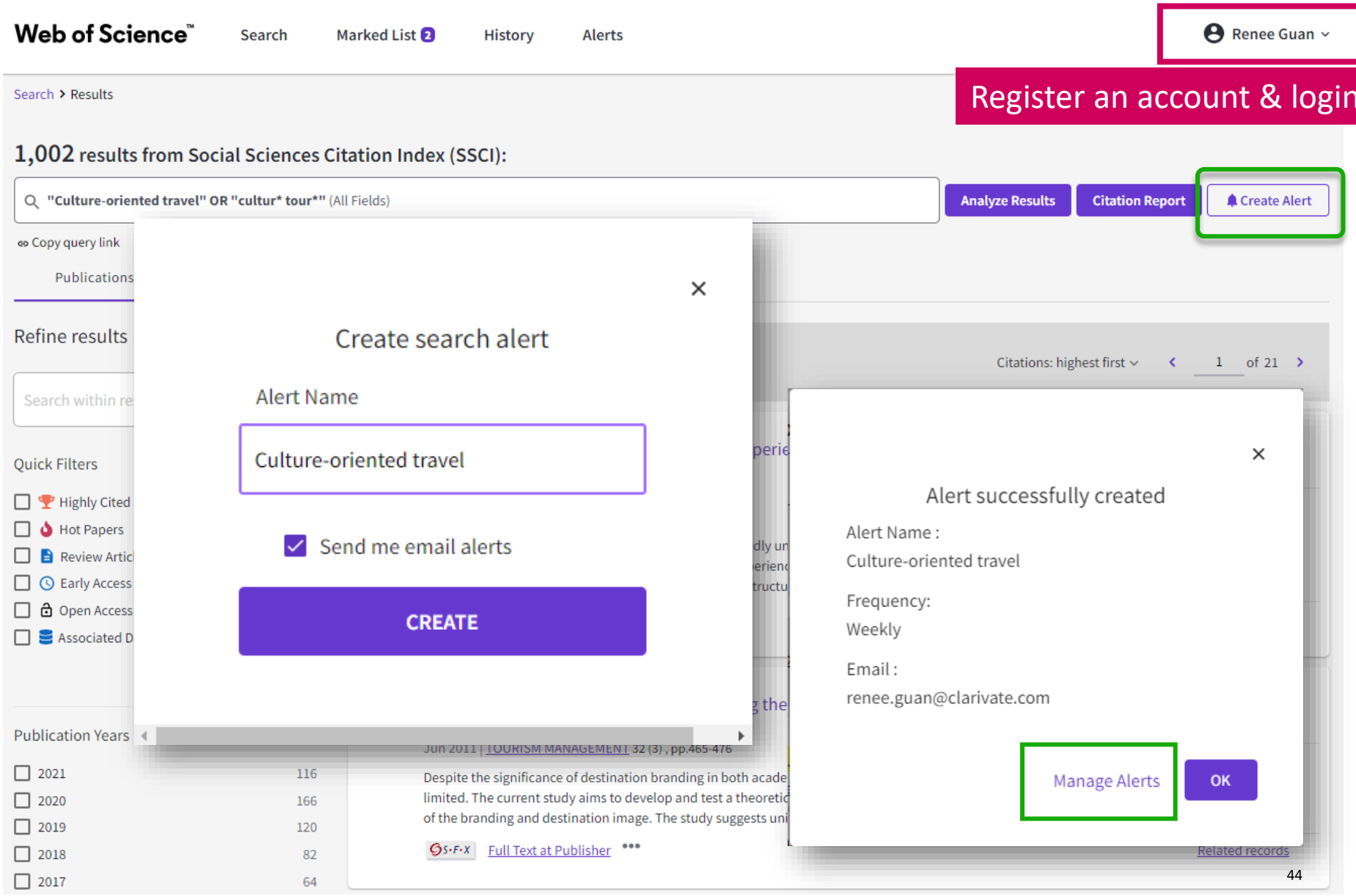
- How to obtain automatically-updated information of certain research topic?

E-mail me automatically and timely?

  - **Create Alert**
  - **Create Citation Alert**

Catch up with the latest research development with the help of WoS

- ❑ **Create Alert**
- ❑ **Create Citation Alert**



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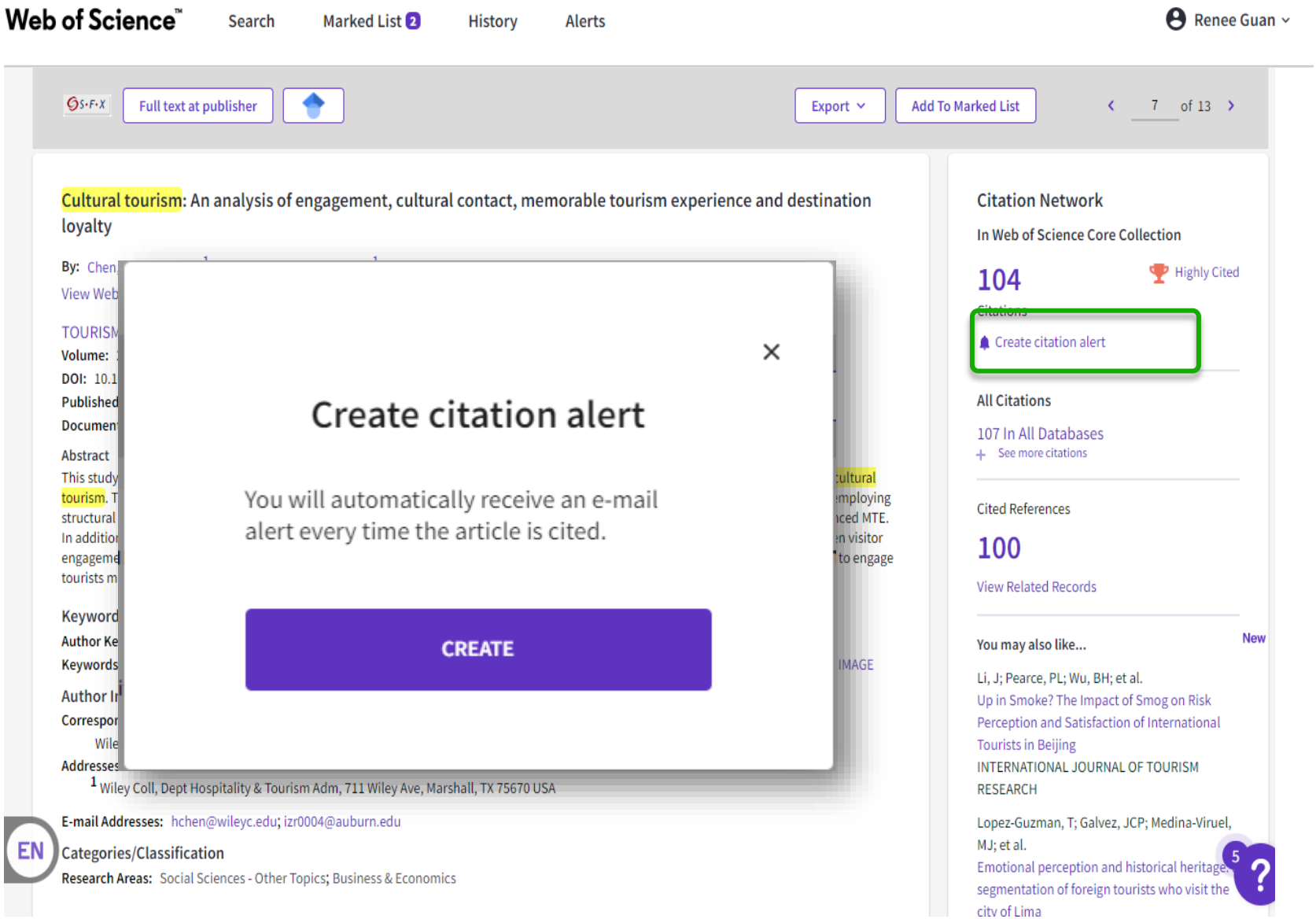
Catch up with the latest research development with the help of WoS

- ❑ Create Alert
- ❑ Create Citation Alert



Your Next Big Idea

Use Web of Science to kick off your research Project

Use the **Topic** search option to find articles in your field.
Use the **Refine** options to narrow your results.

Pick a few good articles, then, follow the Times Cited and Cited References links to see articles with citation connections.
To find even more articles based on citations, use **Find Related Records**.

Use **Analyze Results** on your search set to find:

- Authors that have published on this topic and could be potential collaborators
- Past sources of funding in this field of research
- Journals that publish on this topic. You may want to consider them for submission.

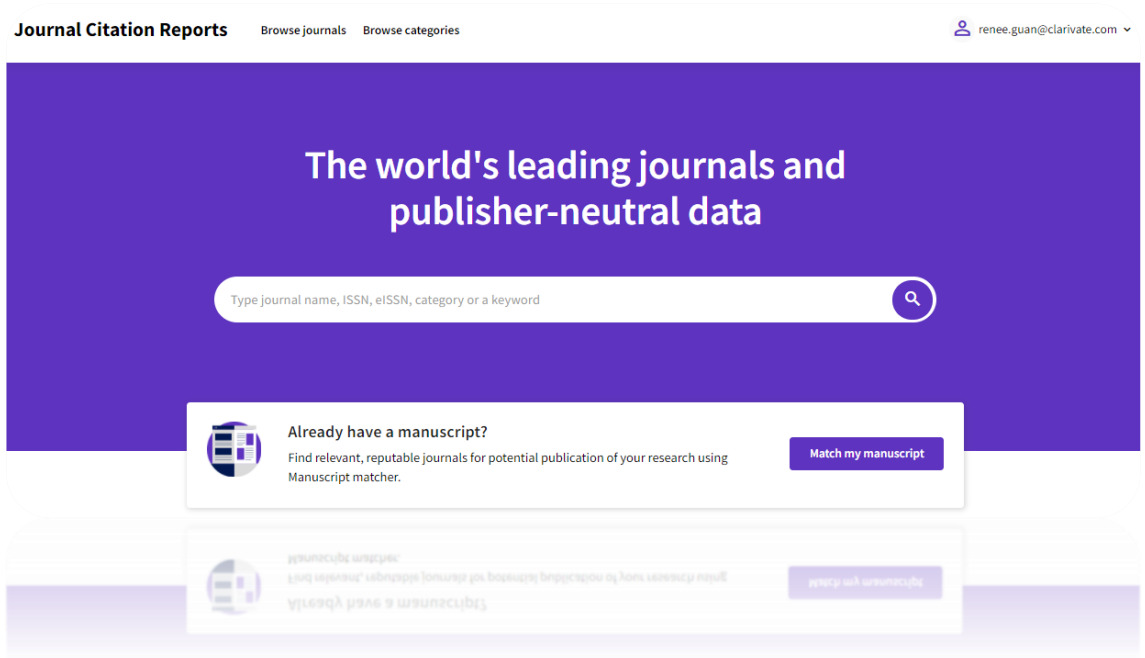
Use **Create an alert/ Create Citation Alert** to stay up with the latest publications.

JCR helps to publish in high ranked impact factor journals

What is the Journal Citation Reports (JCR)

Discover the influence and value of journals

- JCR helps to publish in high ranked impact factor journals
- View Journal Impact Factor and other journal metrics.
- All journals in JCR are sourced from these indexes
  - Science Citation Index Expanded
  - Social Science Citation Index
  - Art & Humanities Citation Index
  - Emerging Sources Citation Index

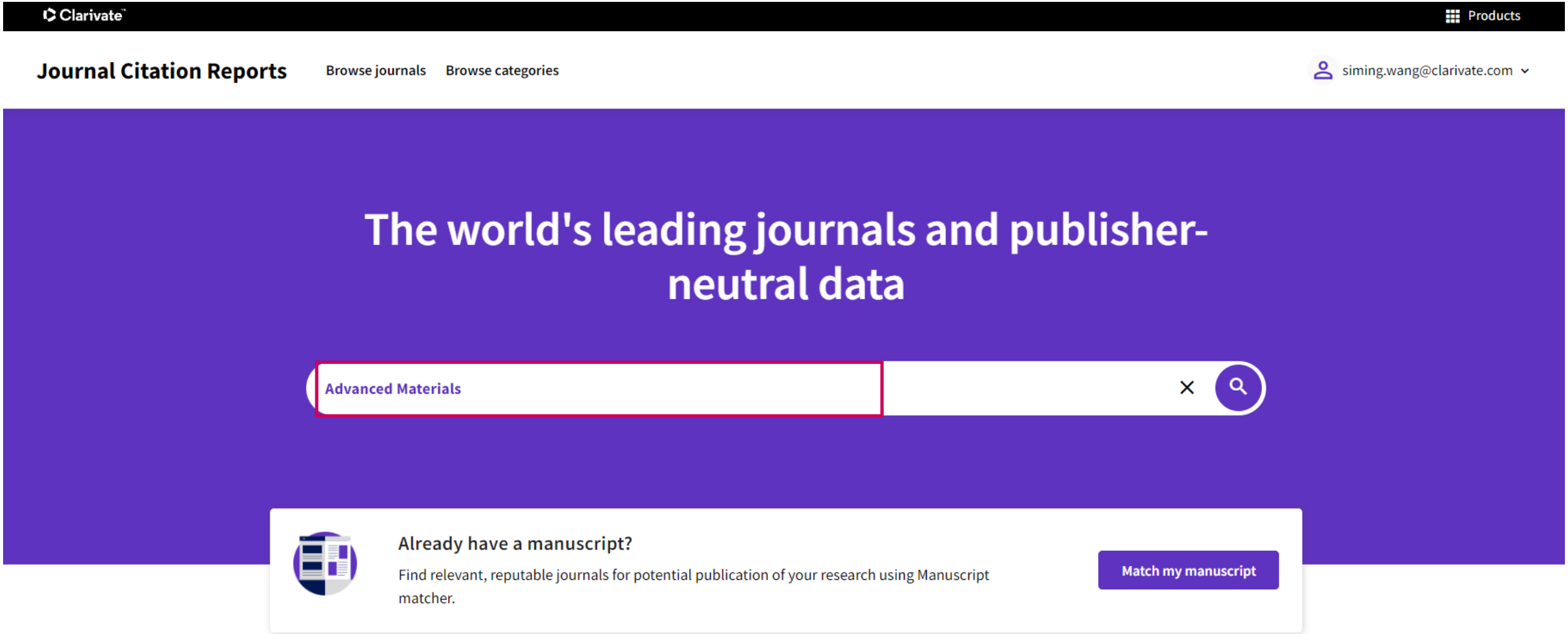


Two Main Issues in Journal Selecting

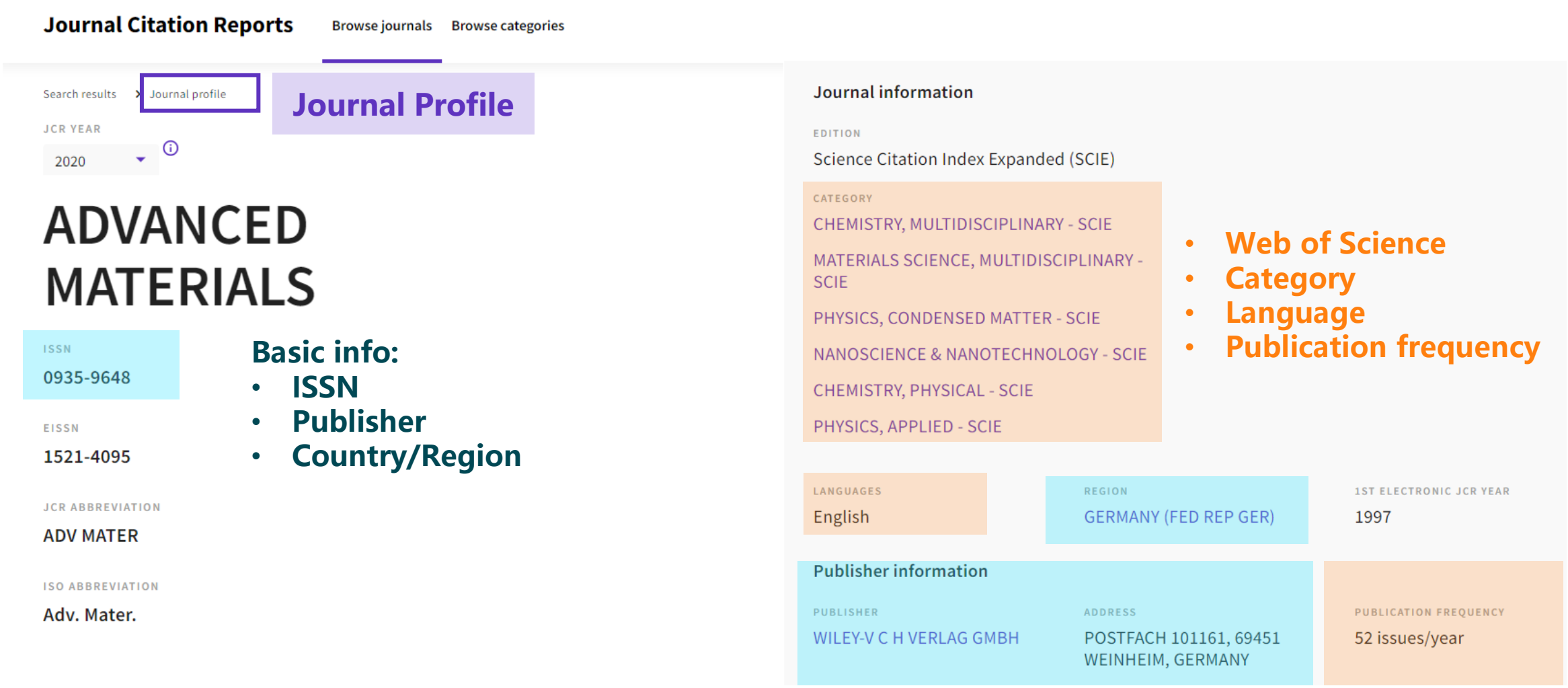
How impactful the journal is in this research areas?

Whether the journal focuses on or is related to my research topic?

The whole journal profile in JCR™



The whole journal profile in JCR



The whole journal profile in JCR

2020 JOURNAL IMPACT FACTOR

30.849

View calculation

JOURNAL IMPACT FACTOR WITHOUT SELF CITATIONS

29.561

View calculation

Journal Impact Factor Trend 2020

Export

Journal Impact Factor contributing items

Export

Citable items (2,808) | Citing Sources (1,911)

TITLE	CITATION COUNT
30 Years of Lithium-Ion Batteries	361
Stable Metal-Organic Frameworks: Design, Synthesis, and Applications	360
Single-Junction Polymer Solar Cells with 16.35% Efficiency Enabled by a Platinum(II) Complexation Strategy	260
Metal-Organic Frameworks as Platforms for Catalytic Applications	242
Over 14% Efficiency in Polymer Solar Cells Enabled by a Chlorinated Polymer Donor	215
Highly Efficient 2D/3D Hybrid Perovskite Solar Cells via Low-Pressure Vapor-Assisted Solution Process	211
Nanoarchitectonics for Transition-Metal-Sulfide-Based Electrocatalysts for Water Splitting	207
17% Efficient Organic Solar Cells Based on Liquid Exfoliated WS2 as a Replacement for PEDOT:PSS	196
Achieving a Record-High Yield Rate of 120.9 mu g(NH3) mg(cat)(-1). h(-1) for N-2 Electrochemical Reduction over Ru Single-Atom Catalysts	195
Water-Lubricated Intercalation in V2O5 center dot nH(2)O for High-Capacity and High-Rate Aqueous Rechargeable Zinc Batteries	192

Trend of JIF and Percentile rank in category

Citable items published in the journal and their citations and the citing sources

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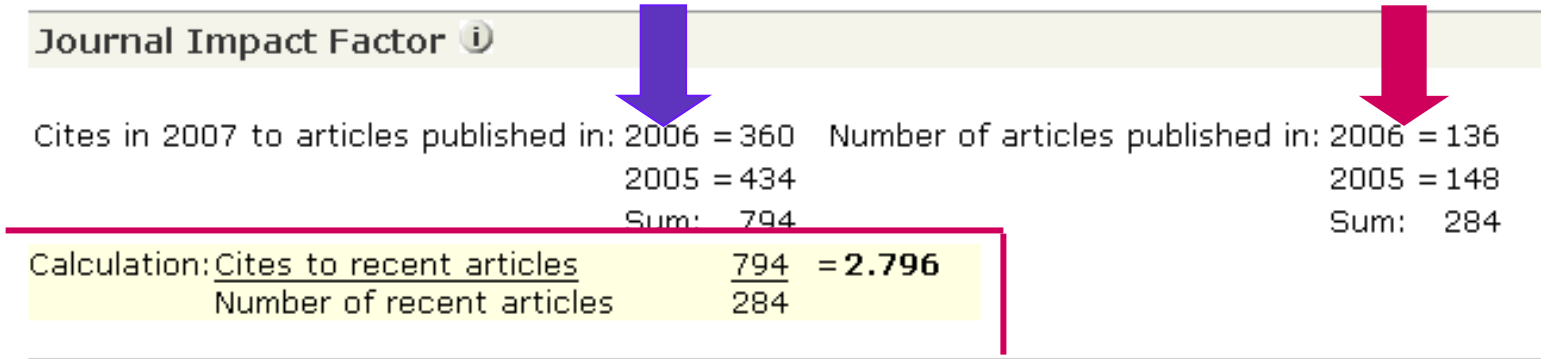
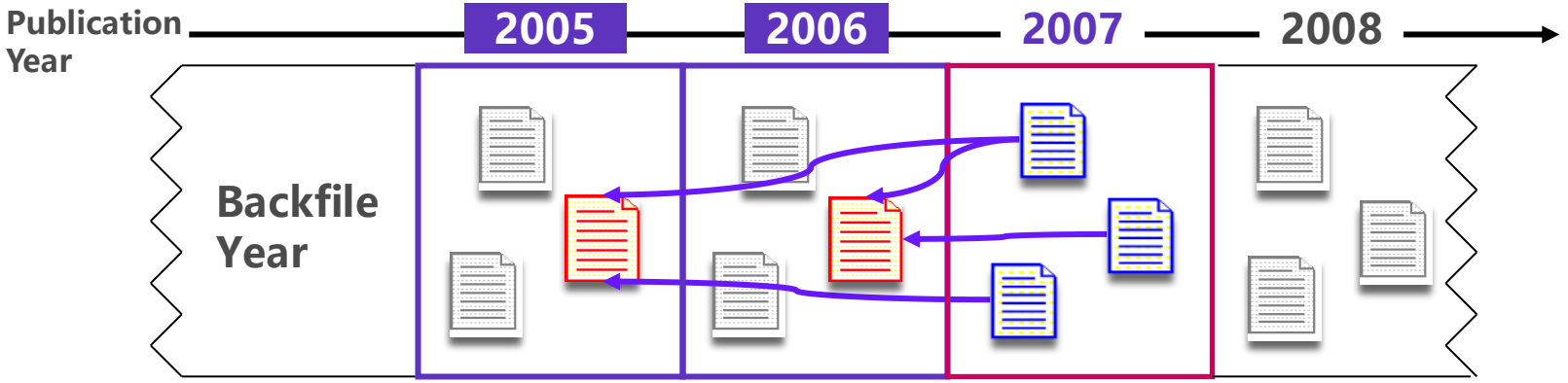
Journal Impact Factor (JIF)

- It is used to measure the importance or rank of a journal by calculating the times it's articles are cited.
- The calculation is based on a two-year period and involves dividing the number of times articles were cited by the number of articles that are citable.

Only after indexed by SCIE or SSCI for more than two years, a journal would have its JIF.





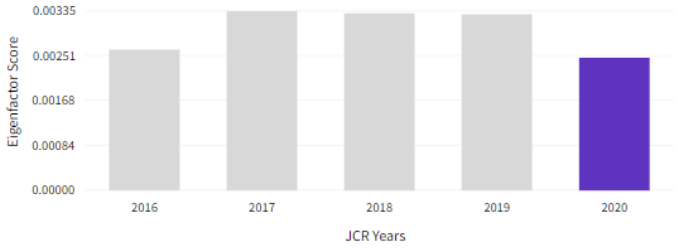
$$IF_{2007} = \frac{\text{Cites in 2007 to articles published in 2006 and 2005}}{\text{Number of articles published in 2006 and 2005}}$$

The whole journal profile in JCR

Eigenfactor Score

0.00248

The Eigenfactor Score is a reflection of the density of the network of citations around the journal using 5 years of cited content as cited by the Current Year. It considers both the number of citations and the source of those citations, so that highly cited sources will influence the network more than less cited sources. The Eigenfactor calculation does not include journal self-citations. Learn more



Normalized Eigenfactor

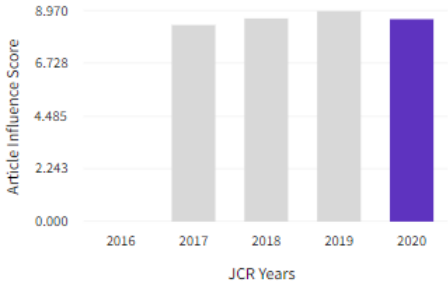
0.52099

The Normalized Eigenfactor Score is the Eigenfactor score normalized, by rescaling the total number of journals in the JCR each year, so that the average journal has a score of 1. Journals can then be compared and influence measured by their score relative to 1. Learn more

Article influence score

8.625

The Article Influence Score normalizes the Eigenfactor Score according to the cumulative size of the cited journal across the prior five years. The mean Article Influence Score for each article is 1.00. A score greater than 1.00 indicates that each article in the journal has above-average influence. Learn more

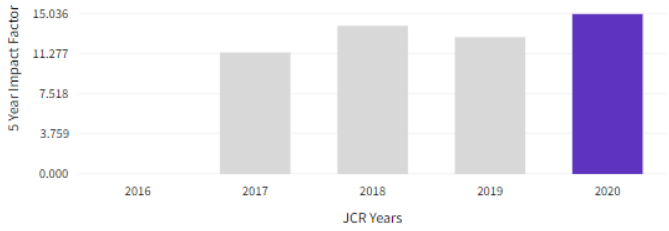


5 Year Impact Factor

15.036

View Calculation

The 5-year Impact Factor is the average number of times articles from the journal published in the past five years have been cited in the JCR year. It is calculated by dividing the number of citations in the JCR year by the total number of articles published in the five previous years.

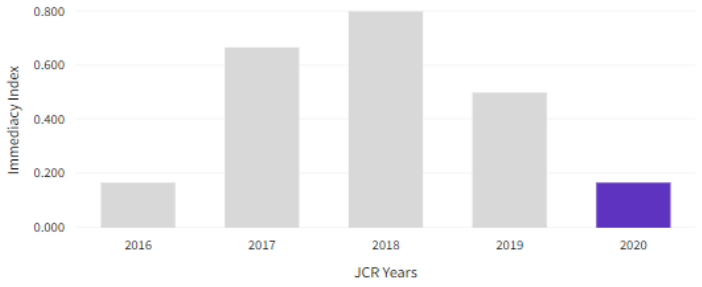


Immediacy Index

0.167

View Calculation

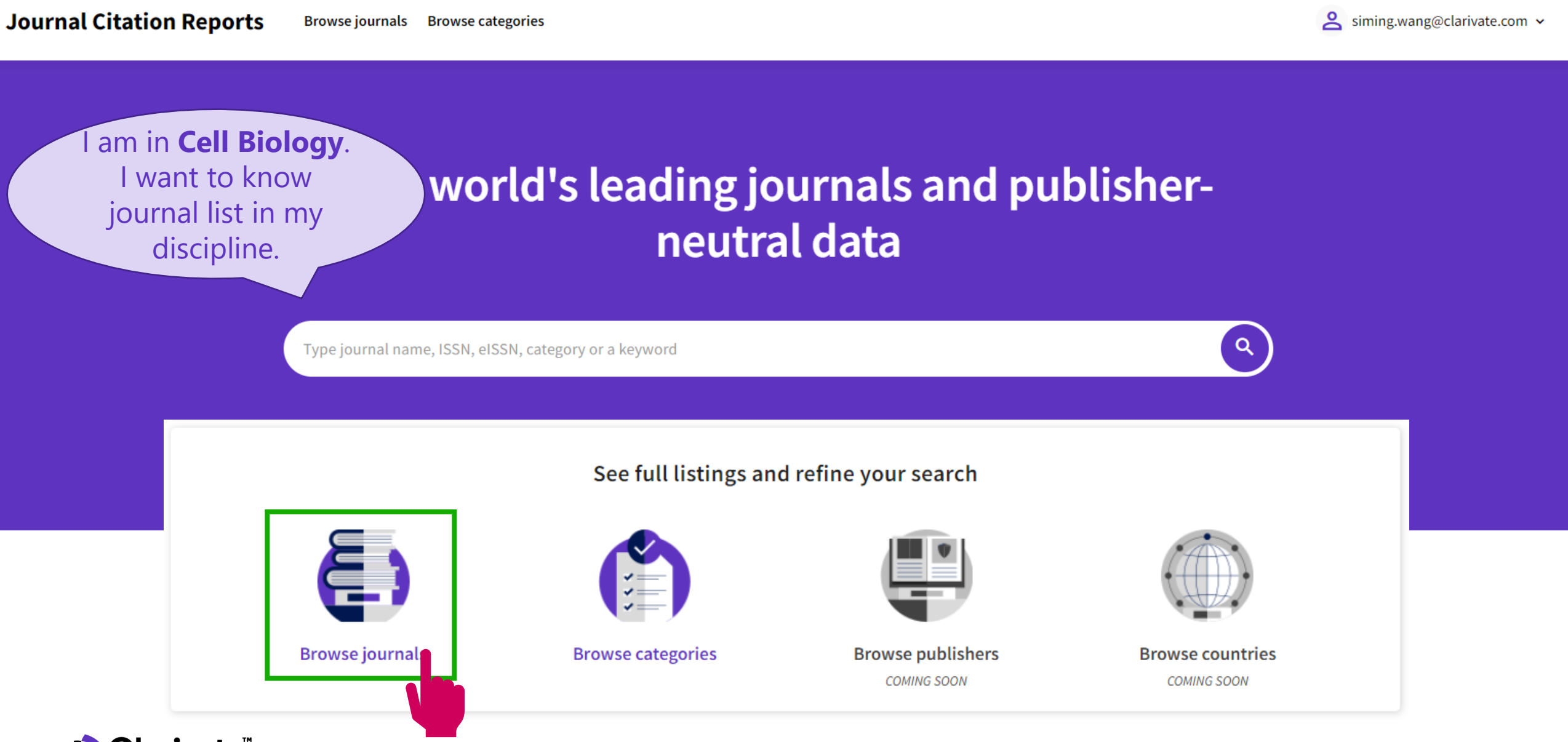
The Immediacy Index is the count of citations in the current year to the journal that reference content in this same year. Journals that have a consistently high Immediacy Index attract citations rapidly. Learn more



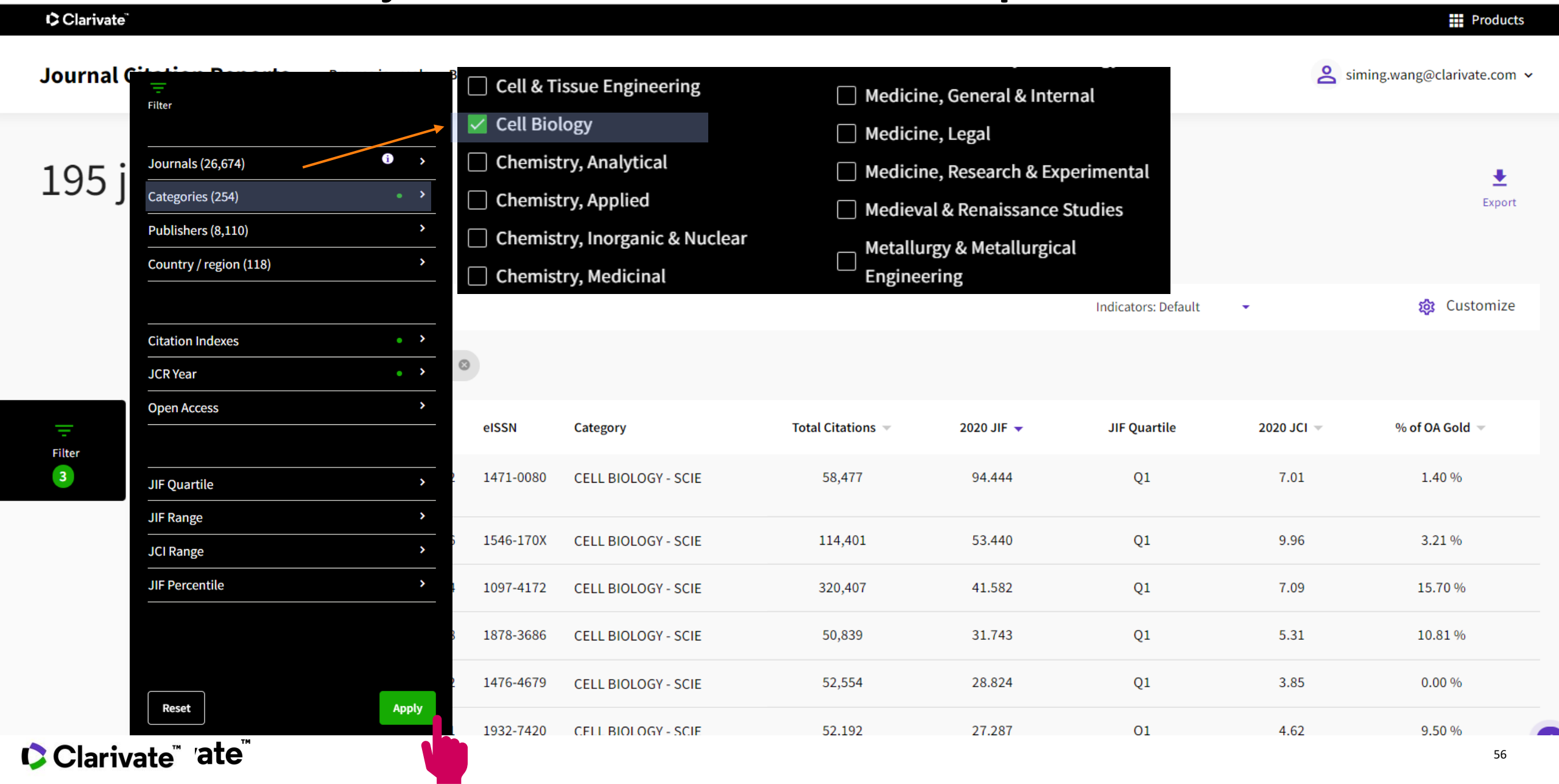
Additional metrics of the journal

- Eigenfactor Score
- Normalized Eigenfactor
- Article influence score
- 5 Year Impact Factor
- Immediacy Index

Find the whole journal list for a certain discipline in JCR



Find the whole journal list for a certain discipline in JCR



Take Away

Take away

1. **Comprehensively analyze** existing information to grasp the **development** direction and **trends** of research topics
2. One-click **access** to research papers with EndNote Click, and create your personal library and efficiently manage document with EndNote online
3. Select appropriate and high impact **journals** to publish research outputs with Web of Science

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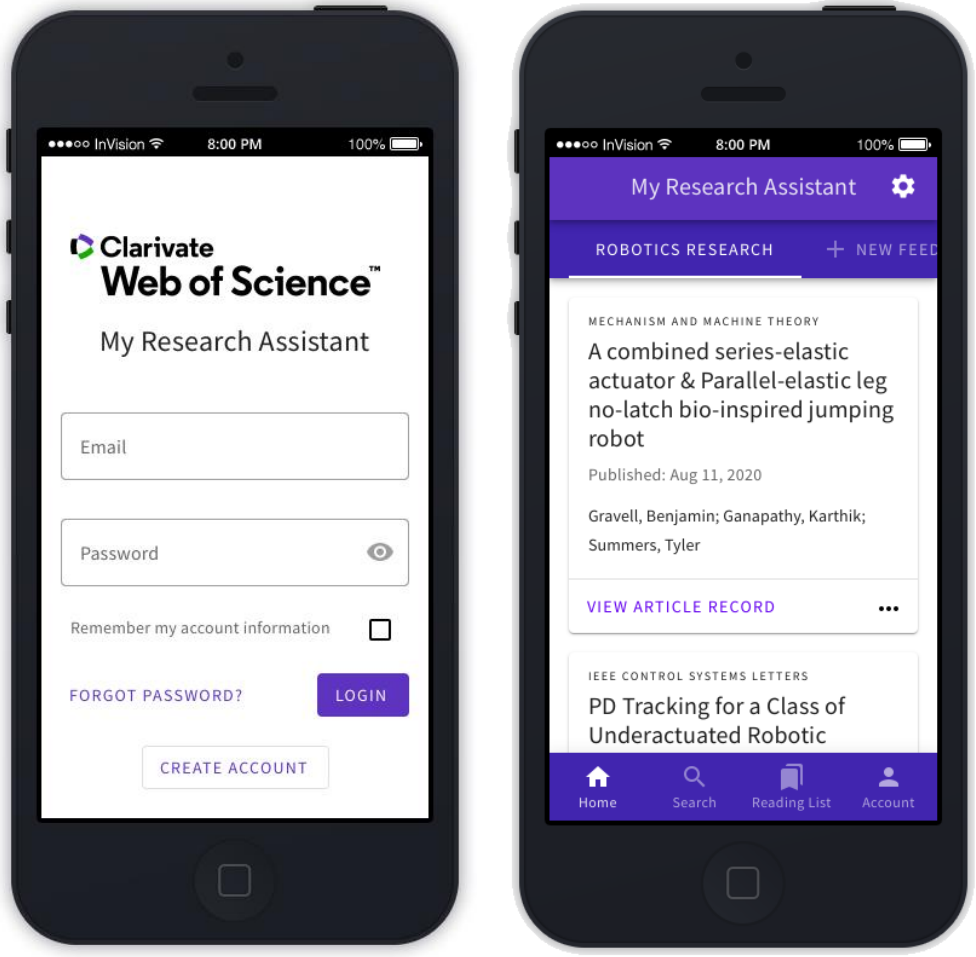

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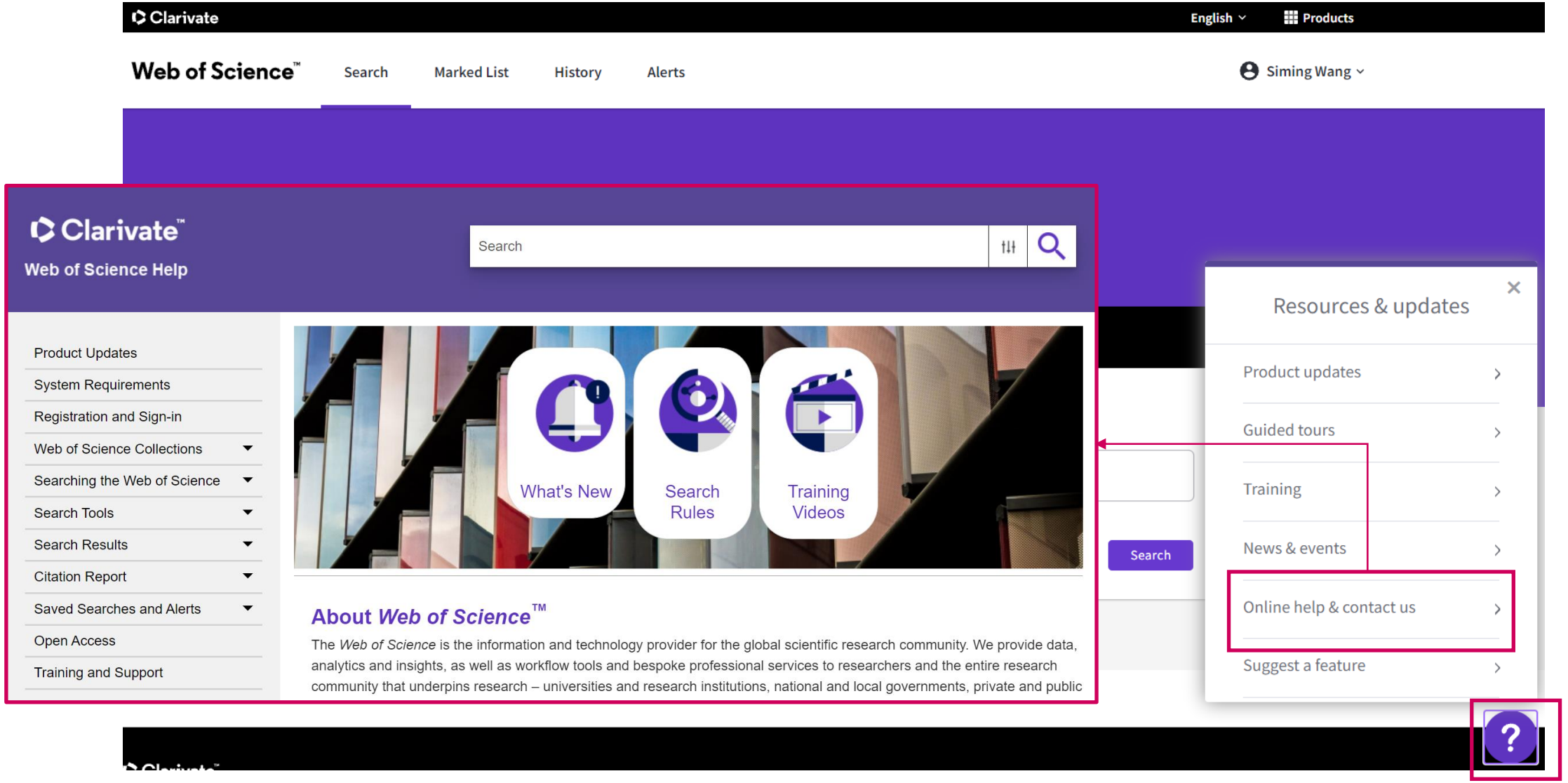
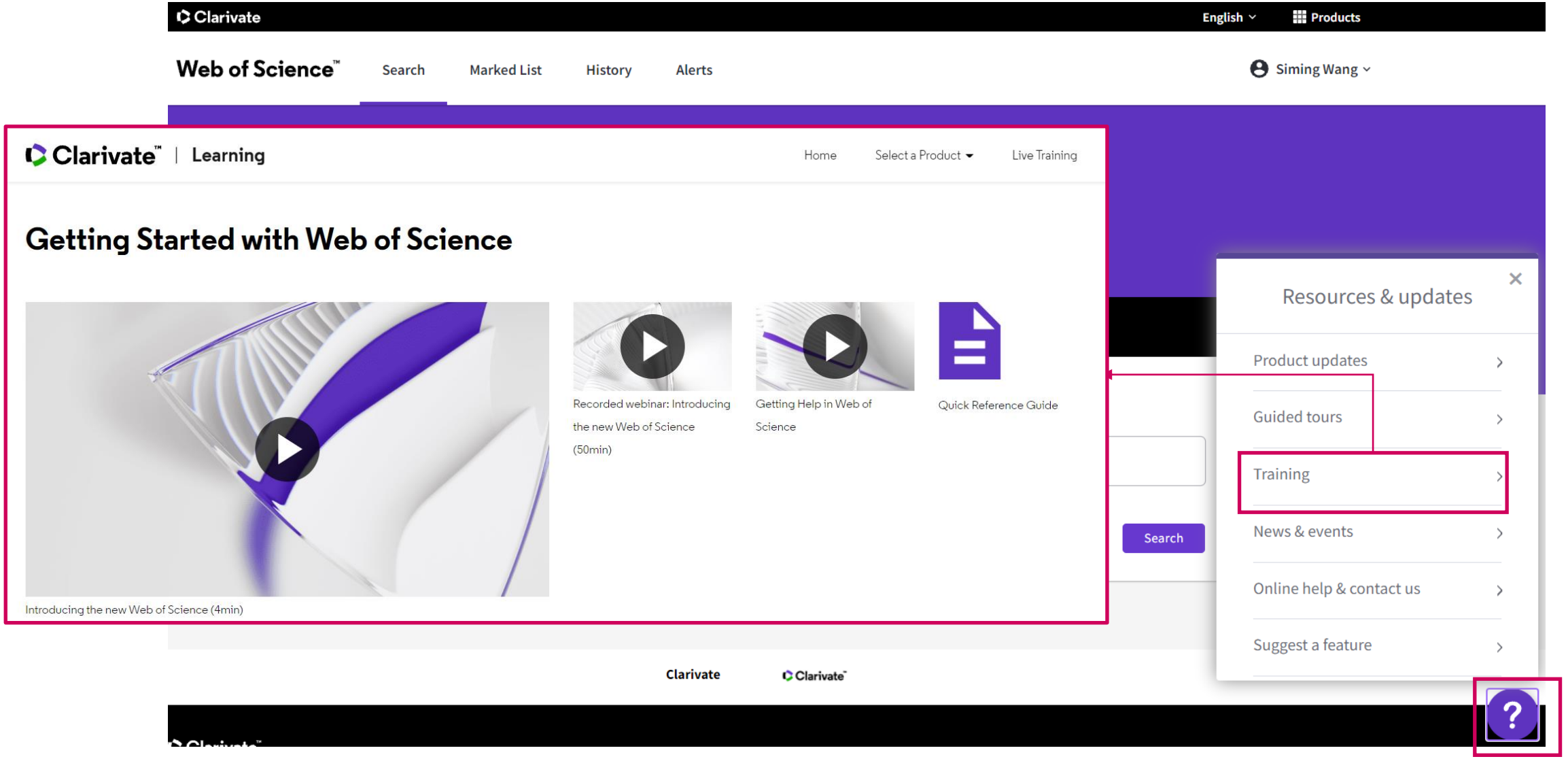
More helps



http://webofscience.help.clarivate.com/en-us/Content/home.htm

Online Training



https://clarivate.com/webofsciencegroup/support/wos/

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Thank you.