When a Scholarly, Peer-Reviewed Article Can’t Be Trusted: The Covert World of Retracted Articles

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Outline

1. What are retracted articles?
2. Top 5 ‘Hall of Shame’ Retracted Articles
3. Additional information about retracted articles
4. Search Strategies
   a. Web of Science
   b. PubMed
   c. PsycINFO
   d. Google Scholar
5. Incorporating retracted articles into LIB 250
What are retracted articles?
A retracted article violates a professional code of ethics.

It’s the ‘self-correction’ method of scholarly publishing.
Examples of retracted articles

Process for article retractions

1. Article's veracity is questioned
2. Editor reviews article
3. Editor issues an Expression of Concern
4. Investigation by publisher, author's institution and/or Office of Research Integrity
5. Article is retracted and retraction notice is published

Suspicion that article violates professional ethics but have not reached a conclusion yet

These two steps don’t always occur

More info: Committee on Publication Ethics (COPE) Retraction Guidelines
Retracted article vs. retraction notice

M. J. LaCour, D. P. Green (2014), Science 346(6215), 1366-1369; M. McNutt (2015), Science 348(6239), 1100.
How retracted articles are marked online varies
Now it’s your turn!

What are some reasons you think would cause an article to be retracted?
Top 5 ‘Hall of Shame’ Retracted Articles
5. Can’t contact author who collected the data

Retraction notice: “Unfortunately, the data collection procedures could not be verified because the author who collected the data (Cengiz Altay) could not be contacted following the attempted coup in Turkey.”

4. Professor plagiarizes his student’s thesis

- **Professional organization’s report:** Professor “failed to acknowledge the contribution of [co-author and student] to the submitted academic paper.”

- **Professor’s defense:** I wrote part of the student’s thesis


3. First author fabricated data from 900+ patients

- First author “faked everything: names, diagnosis, gender, weight, age, drug use.”
- All co-authors were completely unaware
- Ultimately, first author had several articles retracted and his doctorate in medicine revoked


News article: http://www.the-scientist.com/?articles.view/articleNo/23607/title/Lancet-study-faked/
2. Article contains personally identifiable info

Retraction notice: “...certain sensitive clinical material regarding the patient discussed in the article may inadvertently result in the compromise of the patient's privacy.”
1. Fake reviewer contact information

- Retraction notice: “submitting authors... had supplied fabricated contact details for their nominated reviewers”
- Total of 6 articles were retracted

And it gets worse....

- Fake reviewer contact info. caused 107 articles to be retracted in *Tumor Biology* (April 2017)
- In the past year, this journal has retracted a total of 132 articles
- An estimated 15% of all article retractions between 2012-15 were caused by fake peer reviews
Additional interesting information about retracted articles
Other types of notifications

- **Correction:** small part of article is flawed, usually due to author error
  - Also called Corrigendum
  - Example: Small numerical error in table

- **Erratum:** production error (publisher error)
  - Example: Author’s name is misspelled

- **Removal:** legal reasons for removal

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Journals with higher impact factors (IF) have higher numbers of retracted articles

Why?

1. Articles published in these journals receive more scrutiny
2. High IF journals are more likely to have clear policies about misconduct
3. Publishing in a higher IF journal provides more incentives to ‘cut corners’
The social sciences are not immune to article rejections

Diederick Stapel

- Dutch social psychologist
- Fabricated data throughout research career
- Co-authors unaware of misconduct
- 50+ articles retracted and surrendered his doctorate

The humanities are not immune to article rejections

Mustapha Marrouchi

- English literature professor
- 20+ articles retracted due to significant plagiarism
- Fired from University of Nevada - Las Vegas

http://www.chronicle.com/article/Anatomy-of-a-Serial-Plagiarism/148437
Each publisher/journal has different retraction policies and procedures

Publisher policies:

- Elsevier
- Wiley
- Springer
- Taylor & Francis
Article retractions are on the rise but still relatively rare

- ~ 2 million articles published annually
- At least 1 article retracted every day
- Estimate: > 0.1% of articles are retracted every year

Data from: MEDLINE Key Indicators

Marcus and Oransky. (2015) NY Times What's Behind Big Science Frauds?
Search Strategies to Find Retracted Articles
Web of Science

- **Title**
  - “retraction of” → to find retraction notices
  - “retracted article”
  - “expression of concern”

- **Document Type**
  - Correction
  - Correction, Addition
PubMed

- Advanced Search: Publication Type
  - Retracted publication
  - Retraction of publication
- Basic Search
  - “retracted article”
  - “expression of concern”
- National Library of Medicine policy on how it marks article retractions, corrections, etc.
PsycINFO

Post Search Limit

Pre-Search Limit
No big secret. Just add “retracted” or “retraction” to your search.
Retraction Watch (retractionwatch.com)

- Independent blog started by two medical journal journalists
  - “Tracking retractions and related issues in scholarly publications”
- Analysis, commentary, etc.
  - Updated daily
  - Great links to other resources!
- Search by author, country, journal, institution, publisher, discipline, and reason for retraction
Incorporating retracted articles into LIB 250, for-credit library course
Overview of LIB 250

- 4 Credit
- Writing Intensive
- Online
- Library and Internet Research Skills
- Bias Crushing/Mind Expanding/Gluten Free

“Great course by the way, sure glad I took it as a writing intensive and felt it was one that I actually enjoyed and learned a bit that I can look back on for future endeavors. =)”

-Appreciative LIB 250 Student
Instructional design for retracted articles lesson

Short Online Lesson
1. What
2. How

Individual Exercise
1. Select Database
2. Find Retracted Article

Share with Teammates
1. Citation
2. Questions
ACRL Framework Connections

Authority Is Constructed and Contextual
Information Creation as a Process
Information Has Value
Research as Inquiry
Scholarship as Conversation
Searching as Strategic Exploration
“Although I was aware of the fact that articles could be retracted, I did not know that you could find them on databases.”

“I honestly never even heard of a retracted article until this assignment. It was really interesting to look at the articles that came up in my search when I added the word "retracted". “

“What I found most interesting about retracted articles after finding one myself was that people want an article published so bad that they will go to the extent to give fake contact information as if no one will find out.”

“When learning about retracted articles, I found it most interesting that after all the work these scholars put into it, and the journal being peer-reviewed before publication, mistakes still seep through the cracks.”
Incorporating retracted articles into library instruction

- Use to show off the limits in certain databases and launch into a discussion on retracted articles
- In class assignment based on what was done for LIB 250
- A game to find the most outrageous reason an article was retracted with students voting in class
Conclusion
Retracted articles: ‘self-correction’ method of scholarly publishing

- Article violates a professional code of ethics
- Wide variety of reasons for articles to be retracted
- BUT... retracted articles account for a small % of scholarly articles
Each publisher/journal handles retractions differently

- Retraction notices give varying levels of detail about the reason for the retraction
  - Retraction Watch tries to provide transparency
- Additional sources of information
  - Institution/governmental investigations
  - News source (example: The Chronicle of Higher Education)
- COPE Retraction Guidelines
Retracted articles and information literacy

● **Unique way** to get students to explore different databases
  ○ LIB 250 students really like searching for retracted articles!

● Not meant for students to distrust scholarly publishing
  ○ Rather gives them a **healthy dose of skepticism**
  ○ ACRL *Framework*: Scholarship as Conversation, Authority is Constructed and Contextual, Information Creation as Process
Questions?

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