Op Ed — To Err is Human: Part 3

Citing the Errors

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Introduction

Mistakes happen. We all make them from time to time. But what does it say when our most scholarly sources — peer reviewed journals — publish mistakes? This is the third in a series of three articles on issues related to errata and retractions in scholarly journals. This article will focus on the citation rates of errata and retractions.

Methodology

Scopus was chosen for its wider title coverage than Web of Science and its ability to export data for analysis. In order to find these errata and retractions, all that needs to be done is to enter Scopus and conduct search for the source title and then limit to the document type "Erratum" or "Retracted" for each type. Finding these across all publications is a bit more work, but a search for all fields using the following search should get every document indexed:

a* OR b* OR c* OR d* OR e* OR f* OR g* OR h* OR i* OR j* OR k* OR l* OR m* OR n* OR o* OR p* OR q* OR r* OR s* OR t* OR u* OR v* OR w* OR x* OR y* OR z*

For the purposes of this study, the items were limited to 2012-2021 content prior to search. After search, source type of journal was applied as a limit. Then the appropriate document type limit was applied. Note Erratum is used for all errata types.

There were over 229,000 total errata. Due to the output limits for Scopus, the data for the 20,000 most cited errata were downloaded. Items with ten or more citations were examined closer. On examination of citations, it appeared that only 2,809 (1.2%) of the total errata had 10 or more citations. This means considering all of the errata from 2012-2021, only this small amount are getting 10 or more citations. So, while errata are getting some citations, they’re not getting cited at overwhelmingly larger numbers. As outlined in Table 1, less than 9% of errata see more than 50 citations.

Comparing some highly cited items, original articles are most often cited far more often than corresponding errata. For example, the biggest difference is an errata cited 200 times, but the original article is cited 48,586 times. However, some errata have higher citation counts in Scopus compared to their original. In one case, an errata (in this case, a corrigendum according to its title, since Scopus does not separate errata type) had 427 cites with the original cited only 22 times.

A similar method was used to isolate retractions and examine their citation rates. The same set of 6,791 retractions from my second article in this series were examined close. Retracted items get citations, in this group as high as 1,270. While this study did not examine retracted articles to determine if citations were done before or after the retraction, the citations are nevertheless to an article that has been retracted. But they are not seeing high citation levels, with most having 6 or fewer citations and only 6.57% of citation counts being 50 or more citations. Many (13.72%) have thus far seen no citations. See Table 1.

Table 1: Errata Citation Distribution for 10+ Citations Only

<table>
<thead>
<tr>
<th>Range</th>
<th>Count</th>
<th>%</th>
<th>Cumm. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>500+</td>
<td>3</td>
<td>0.04%</td>
<td>0.04%</td>
</tr>
<tr>
<td>100-499</td>
<td>140</td>
<td>2.01%</td>
<td>2.05%</td>
</tr>
<tr>
<td>50-99</td>
<td>315</td>
<td>4.52%</td>
<td>6.57%</td>
</tr>
<tr>
<td>7-49</td>
<td>3009</td>
<td>43.18%</td>
<td>49.73%</td>
</tr>
<tr>
<td>1-6</td>
<td>2548</td>
<td>36.57%</td>
<td>86.29%</td>
</tr>
<tr>
<td>0</td>
<td>956</td>
<td>13.72%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Table 2: Retractions Citation Distribution

Takeaways

In summary, examining the data for these highly cited retractions and errata published 2012-2021 revealed:

- Retracted items and errata are getting cited, but usually not heavily.
- Errata are almost always less cited than their original article.

What cannot be determined via the data for this study, or were not examined closer, but are potential areas to explore further:

- Are people citing a portion of an article where an error is and missing the erratum related to that error?
- Why are people citing an erratum rather than the original?
  - Are these citations sometimes citing authors’ error?
  - Is the database incorrectly attributing citation to the wrong item?
• Are cites of a retracted article occurring mostly before retraction or do they continue and are mostly after the retraction has occurred?
  — Are those citing the item knowingly citing a retracted item and does their citation indicate that?
  — Can publishers and databases do anything different to make it clearer items are retracted?

**Final Thoughts on Errata and Retractions**

This article concludes a three-part series on error and retractions. What had let me down this route was seeing several errata when examining search results for another line of research. My curiosity led me to try to find how prevalent these were. I have also been telling students for quite some time that despite peer review, issues like errors and plagiarism still occur in our most quality-checked literature. This issue speaks to multiple themes of information literacy, such as those related to evaluation, authority, information creation, etc.

These three examinations drive home the point librarians make about evaluating your sources in all cases, that no information format is perfect. Never assume an item is perfect because it is peer reviewed, from top scholars in a discipline, or in one of our highest quality journals. The evidence here illustrates the major importance of evaluation of one's sources and the non-foolproofness of peer review.

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**Use these links to read Part 1 and Part 2 of Daniel's Op Ed**
