SURVEY SUMMARY | Research Ethics: Decoding Plagiarism and Attribution in Research

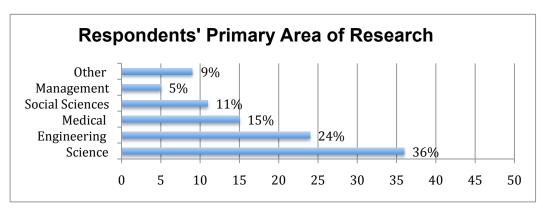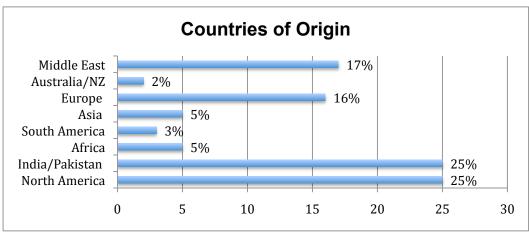*Researcher Insights into the Types of Plagiarism and Attribution Issues*

Background

As cases of plagiarism in academia and at scholarly journals rise, much discussion has centered on methods of preventing and detecting plagiarism and applying appropriate consequences. Amid the publicity surrounding the National Science Foundation's discovery of plagiarism in some grant proposals as well as data from *Nature* citing major spikes in retractions over the past ten years, it has become clear that understanding plagiarism is more complex than a simple assessment of originality. For universities and scholarly publishers to formulate a truly comprehensive strategy for addressing and preventing plagiarism, a more thorough understanding of the many shades of duplication is beneficial.

Methodology

In August 2013 iThenticate conducted an online survey of scientific researchers to gauge their understanding and experience with various forms of plagiarism. The survey defined 10 distinct types of plagiarism and attribution issues, and asked respondents to rank the severity of each form and report its perceived commonness.

The respondent pool was comprised of 334 research scientists from 50 different countries. The majority of respondents were in the science, engineering or medical fields, and most came from North America, India/Pakistan, the Middle East, and Europe.

Respondents' Primary Area of Research

Area	Percentage
Other	9%
Management	5%
Social Sciences	11%
Medical	15%
Engineering	24%
Science	36%

Countries of Origin

Region	Percentage
Middle East	17%
Australia/NZ	2%
Europe	16%
Asia	5%
South America	3%
Africa	5%
India/Pakistan	25%
North America	25%

The forms of plagiarism detailed in the survey are as follows:

Replication: Submitting a paper to multiple publications in an attempt to get it published more than once

Duplication: Re-using work from one's own previous studies and papers without attribution

Secondary Source: Using a secondary source, but only citing the primary sources contained within the secondary one

Misleading Attribution: Removing an author's name, despite significant contributions; an inaccurate or insufficient list of authors who contributed to a manuscript

Invalid Source: Referencing either an incorrect or nonexistent source

Paraphrasing: Taking the words of another and using them alongside original text without attribution

Repetitive Research: Repeating data or text from a similar study with a similar methodology in a new study without proper attribution

Unethical Collaboration: Accidentally or intentionally use each other's written work without proper attribution; when people who are working together violate a code of conduct

Verbatim: copying of another's words and works without providing proper attribution, indentation or quotation marks

Complete: Taking a manuscript from another researcher and resubmitting it under one's own name

Respondents were asked to rate the seriousness as well as the perceived commonness of each on a scale of 1-10, with 1 indicating the least serious or least common, respectively, and 10 being the most serious or most common. Respondents were instructed to indicate a "neutral" answer by using the number 5. Any answer from 6-10 was interpreted as "serious" or "common" and any answer 1-4 was interpreted as "not serious" or "not common."

General Findings

Overall, the researchers attributed a high degree of seriousness to the various forms of plagiarism and attribution, and indicated a moderate to high commonness of most forms of plagiarism and attribution issues in scholarly research.
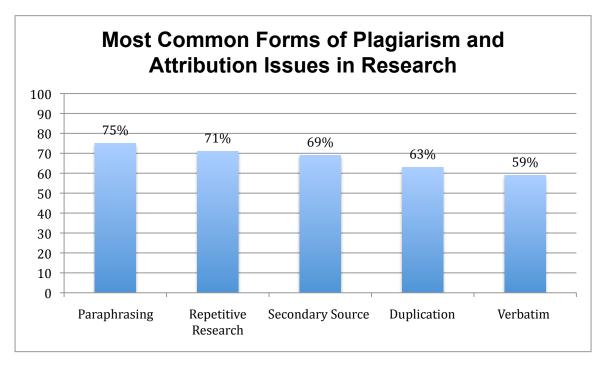
On average, 3 out of 4 respondents (74.5 percent) ranked the forms of plagiarism and attribution issues as serious, and slightly more than half (54 percent) believed the types were common.

The survey results highlight the difficulties faced by scholarly publishers and grant-making organizations when it comes to addressing plagiarism. The forms of plagiarism and attribution issues deemed most common by researchers are also among the most nuanced—notably repetitive research, secondary source plagiarism and paraphrasing, which topped the list of most common forms.

The type of plagiarism deemed most serious—complete plagiarism—was perceived as the least common, but other forms that lead the survey in seriousness—namely verbatim plagiarism and unethical collaboration— were perceived to be far more common.
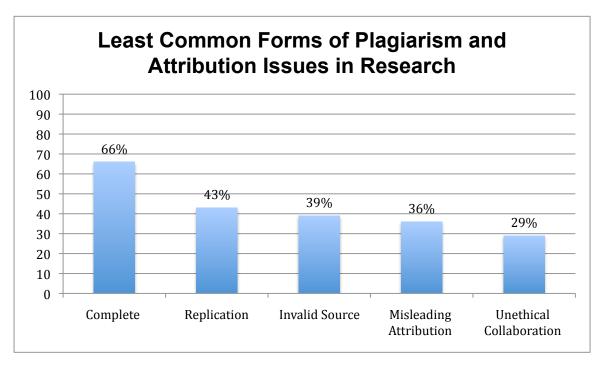
Detailed Findings

According to respondents, the five most common types of plagiarism and attribution are: paraphrasing (75 percent), repetitive research (71 percent), secondary source (69 percent), duplication (63 percent) and verbatim (59 percent).

Most Common Forms of Plagiarism and Attribution Issues in Research

75% Paraphrasing
71% Repetitive Research
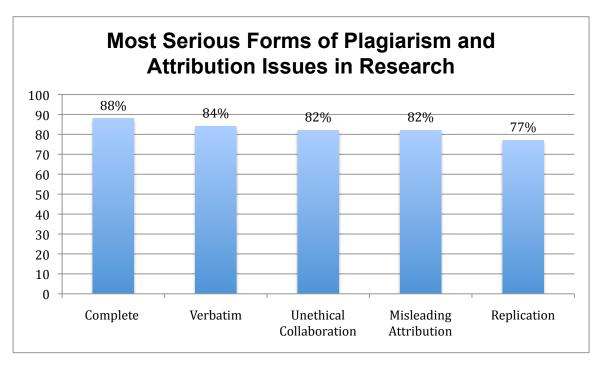69% Secondary Source
63% Duplication
59% Verbatim

The five forms of plagiarism/attribution issues researchers believed were least common were complete plagiarism (66 percent), replication (43 percent), invalid source (39 percent), misleading attribution (36 percent) and unethical collaboration (29 percent).

These percentages represent the total number of respondents who classified the forms as "not common." It is notable that aside from "complete" plagiarism, even the least common forms were only ranked so by a minority percentage of respondents.

Least Common Forms of Plagiarism and Attribution Issues in Research

66% Complete
43% Replication
39% Invalid Source
36% Misleading Attribution
29% Unethical Collaboration

Respondents attributed a high degree of seriousness to all forms of plagiarism and attribution issues identified in the survey, but several rose to the top of the rankings: Complete plagiarism (88 percent), verbatim (84 percent), unethical collaboration (82 percent), misleading attribution (82 percent) and replication (77 percent).
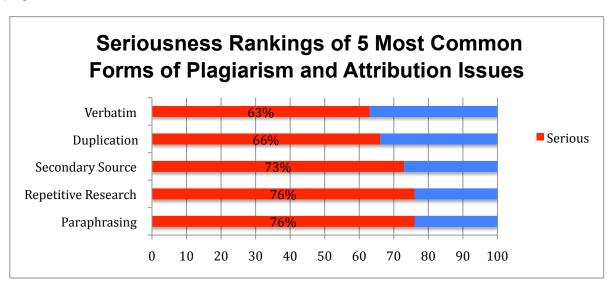
Most Serious Forms of Plagiarism and Attribution Issues in Research

A bar chart showing percentages for different forms of plagiarism:
- Complete: 88%
- Verbatim: 84%
- Unethical Collaboration: 82%
- Misleading Attribution: 82%
- Replication: 77%

Correlation between Seriousness and Commonness

The form of plagiarism identified as the most serious was "complete" plagiarism—the wholesale use of a full manuscript under a name other than the author's. However, the largest percentage of respondents also deemed complete plagiarism the least common of the types presented. One respondent commented that complete plagiarism seemed "impossible in this age of fast information," perhaps referring to the search capabilities of Google and the availability of effective plagiarism detection software.
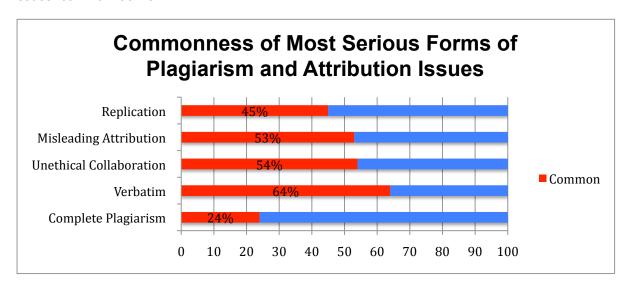
To better understand the gravity of the types of plagiarism and attribution issues researchers believe they are most likely to encounter, it is useful to examine the correlations between the forms ranked "serious" and those ranked "common."

Aside from complete plagiarism, respondents seemed to attribute a greater degree of seriousness to those types of plagiarism and attribution issues they felt were more common.

According to respondents, the most common form of plagiarism that was also ranked most seriously is paraphrasing—of the 75 percent who ranked it as "common." 76 percent deemed it "serious" as well. The remaining common forms of plagiarism and attribution issues also ranked highly in terms of seriousness. The chart below reflects the percentage of those who deemed each form of "common" plagiarism "serious" as well.

Seriousness Rankings of 5 Most Common Forms of Plagiarism and Attribution Issues

A horizontal bar chart showing "Serious" percentages:
- Verbatim: 63%
- Duplication: 66%
- Secondary Source: 73%
- Repetitive Research: 76%
- Paraphrasing: 76%

The forms of plagiarism and attribution issues ranked most serious were generally perceived to be less common. Complete plagiarism, for example, was believed to be the most serious yet the least common. **The most serious form of plagiarism that was also ranked most common was verbatim plagiarism.** The chart below reflects the percentage of those who deemed each form of "serious" plagiarism and attribution issues "common" as well.

Commonness of Most Serious Forms of Plagiarism and Attribution Issues

Form	Common %
Replication	45%
Misleading Attribution	53%
Unethical Collaboration	54%
Verbatim	64%
Complete Plagiarism	24%

Summary and Conclusion

The research scientists polled for this survey reported an overall high perception of both seriousness and commonness for the various forms of plagiarism and attribution issues. Those who identified each form as "common" were likelier to believe that form was also serious, perhaps as a result of personal experience with the real-world negative repercussions of plagiarism.

That said, researchers were also able to take a step back and provide a global view of the plagiarism picture, attributing a grave degree of seriousness to forms of plagiarism and attribution issues they believed were less likely to be encountered, such as complete plagiarism and replication.

Researchers appear to have a high degree of concern about both the likelihood and the seriousness of some of the most difficult to detect forms of plagiarism and attribution issues, including unethical collaboration, replication and misleading attribution.

The two forms of plagiarism that ranked highest in both categories—that is, they were ranked highly in both seriousness and commonness, were verbatim plagiarism and paraphrasing, and on a positive note, both forms are well-suited to detection by plagiarism detection software.

View the Types of Plagiarism and Attribution in Research at:

http://www.ithenticate.com/Portals/92785/resources/decoding-plagiarism-and-attribution