# Ethics Clinic: Paper Mills and Predatory Publishers

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Sponsored by the CSE Editorial Policy Committee, the Ethics Clinic kicked off the second day of the 2024 CSE Annual Meeting. As in years past, real-life cases were shared by speakers for group discussion at each table, followed by sharing and further discussion with the panel. The primary lessons from the Ethics Clinic include the following:

- Rigid approaches may struggle to keep pace with the changing tactics of fraudsters.
- If you encounter serious fraud in published material, be proactive in addressing the issues.
- Editors sometimes have well-founded suspicions of fraud that may fall short of conclusive evidence. In these situations, Editors should carefully consider the burden of evidence (including circumstantial) and the potential negative consequences of being right about their suspicions and not acting.
- Editors need the authority to act decisively.
- Journals should research potential authorship and peer review concerns as part of a paper mill investigation.
- When questioning authors about suspected issues, avoid revealing details about the concerns and/or your detection methods that may compromise the larger investigation or may be used to evade journal processes.
- Stringent guidelines and policies may help to address integrity issues and discourage the submission of fraudulent content.
- If your investigation reveals a connected web of problematic articles, address them at the series level

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rather than in separate article-level investigations. Identify common elements between the linked articles and, where relevant, collaborate with other affected journals and publishers.

- Fraudsters are capable of influencing people with good reputations; legitimate researchers may knowingly or unknowingly buy into problematic services.
- Solutions need to be scalable whenever feasible. In some cases, a journal or publisher will need to take a pragmatic approach to resolve a large-scale issue in a timely manner.
- Researchers should do due diligence in evaluating a journal before submission (e.g., using services such as Think Check Submit). Resolving concerns involving content published inadvertently in predatory journals can be difficult.

## Renee Hoch, PLOS

*Context.* Rigid approaches cannot handle all cases of publication misconduct. Fraudsters adapt; Editors need to follow and adapt with them. But we still need ways to deal with these cases that are scalable.

Often, the evidence is related to clues that strongly suggest fraud and are spread out across different papers. The evidence may be circumstantial in nature, and for many large-scale cases (e.g., paper mills) the concerns would not be evident when looking at an individual article in isolation. In these situations, Editors may be concerned about the implications of being wrong about their suspicions and wrongfully rejecting legitimate content. However, Editors should be empowered to take action based on their overall assessment and whether or not they trust the content. They should also carefully consider the implications of being right about their suspicions and not acting. Making this mistake could be deleterious to the integrity of the scholarly record and could facilitate a type of fraud that continues at your publisher and other publishers, even if unintentionally.

In these situations, Editors also need the authority to act decisively and try to root out problematic content before publication. Editors should also collaborate on these cases across their portfolio and across publishers where appropriate.

#### Case 1

*Description.* A sleuth raised concerns about image reuse. PLOS's investigation revealed that the issue involved a large

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network of articles from different research groups that were all connected by image data reuse; the affected articles spanned several different publishers.

Audience response. Audience members suggested checking guidelines from the Committee on Publication Ethics (COPE), contacting authors, and, if necessary, retracting articles. Plagiarism detection software for images would benefit the industry.

*Resolution.* PLOS responded to the situation by asking the authors to comment on the concerns and provide the primary data from a few articles. (In retrospect, given the scope of the issue, the primary data would not have been able to resolve the series-level concerns and so the data request could have been omitted.) Ultimately, PLOS retracted the affected articles and contacted other publishers with affected content to notify them of the concerns. PLOS also attempted to contact the author's institution but received no response. This happens a lot, so some publishers are considering keeping a list of unresponsive institutions.

#### Case 2

Description. Editors were conducting initial checks on submissions and noticed an influx of articles on similar topics. PLOS looked into the submissions and noticed other similar features across the series that raised concerns about a large-scale integrity issue.

Audience response. Audience members suggested that when questioning authors about suspected issues, avoid revealing your detection methods. Fraudsters could use this information to adapt their own methods and attempt to manipulate peer review. The audience also suggested that journals require each author to have an ORCID.

*Resolution.* PLOS responded by actively monitoring incoming submissions for content linked to the case and rejecting or retracting submissions where it found convincing evidence of integrity concerns. For submissions where the evidence was ambiguous, PLOS monitored the peer review process closely.

## Patrick Franzen, SPIE and COPE

*Context.* Spotting fake research can be a tricky business. The case highlights the importance of organizations like COPE and a new membership option for universities and research institutions. To flag suspect articles, listen to your intuition—editors and publishers have seen hundreds, if not thousands, of articles and know what seems odd. Also, look into whether articles in your own journals are for sale on Facebook or WhatsApp groups to discover potential paper mill activity. In this instance, SPIE found examples of potential paper mill activity and peer review fraud in one of its journals.

*Case description.* SPIE found suspicious submissions for special sections of a journal. Many of them did not fit the

intended topic of the special section or journal, and there were indicators of peer review integrity concerns.

Audience response. The audience suggested creating an accountability system that could monitor the work of guest editors for dishonesty. It also suggested seeking legal advice if a publisher discovers a paper mill.

*Resolution.* SPIE responded by canceling the special sections still in progress and reviewing already published special sections. It also contacted all the guest associate editors and each of the authors involved in those special sections. Authors who submitted to in-progress special sections were invited to resubmit their articles to the journal, but the vast majority never replied to the invitation. SPIE also began scouring social media groups to weed out attempts to sell articles to the journal.

Furthermore, SPIE formed a panel of trusted experts to review all previously published articles once again. Most of the suspected articles were recommended for retraction, but not all were. Authors of retracted papers were given an opportunity to appeal and several of the appeals were honored.

SPIE worked with Retraction Watch to help communicate the news of the retractions and developed a communication plan for its own research community. It also worked with the Web of Science to review the circumstances of the fraud and shared updates to policies and processes to prevent future fraud. Doing so allowed the journal to retain its status in SCIE.

# Chirag "Jay" Patel, Cactus Communications

*Context.* Assume fraudsters are more clever and have no scruples. They are capable of corrupting associate editors with good reputations. Publishers have the responsibility of a clean-up crew for unethical behavior.

*Case description.* An author inadvertently submitted an article to a predatory journal. The author then wanted to withdraw it, and the journal insisted on a \$500 fee to withdraw the article. The author did not sign a copyright transfer form. The fraudulent withdrawal fee was too expensive for the author, who is from a developing country.

Audience response. The audience recommended the author shame the predatory journal on social media. This helps educate people and encourage other authors to reference Think, Check, Submit (https://thinkchecksubmit.org).

*Resolution.* The author submitted the article to a legitimate journal and explained the situation. The situation presented the legitimate journal with different alternatives for responding. Each alternative presented its own set of significant challenges. The legitimate journal suggested that the author seek legal counsel and proceeded with the article as if the author had not submitted it to the fraudulent journal. If a predatory journal threatens to publish an article without its copyright, the author can threaten legal action for copyright infringement.