CSE 2023 Fall Symposium: Research Integrity and Artificial Intelligence

Alex Kahler and Amanda Ferguson

The CSE 2023 Fall Symposium took place on October 24–25, 2023, offering CSE members the opportunity to attend a virtual conference exploring a variety of current topics in research integrity, artificial intelligence (AI), and intersections between the two. A general session kicked off both days of the symposium and after each of the general sessions, attendees joined one of two didactic presentations, followed by 90-minute work groups in which panelists from the didactic sessions answered questions from meeting attendees.

Day one began with a general session moderated by Fall Symposium co-chair and Director of IFT Scientific Journals, Amanda Ferguson, entitled "AI, Accessibility, and Research Integrity: Opportunities and Challenges". Ferguson was joined by Mohammad Hosseini, a postdoctoral researcher based at Northwestern University Feinberg School of Medicine and associate editor at the *Journal of Accountability in Research*, as well as Scholarly Kitchen executive author and editor Hong Zhou, who leads the Intelligent Services Group at Wiley Partner Solutions. Their session explored the opportunities and challenges of AI for scholarly publishing, from the use of fine-tuned generative AI for research integrity to transforming the research ecosystem into an accessible and inclusive place.

Following the general session, Tony Alves, SVP of Product Management at HighWire Press, hosted a didactic session and work group combination titled "AI and ML Tools that can be Used to Ensure Research Integrity". The panelists included Adam Day, founder and CEO of Clear Skies Ltd, a company that offers several unique methods to detect paper mill products before peer review, thereby preventing the publication of fraudulent literature. They were also joined by Josh Nicholson, co-founder and CEO of scite.ai,

Alex Kahler is Director, KGL Editorial. Amanda Ferguson is the Director of IFT Scientific Journals.

a next-generation citation index gives context to citations and provides scholarly references to ChatGPT, and Patrick Starke, the founder of imagetwin, a software company that focuses on the automated detection of image integrity issues in academic papers. After sharing information during the didactic session about the tools they designed, each panelist engaged with audience members in the follow-up work group to explain how their tools could be used to address challenges attendees are currently facing in their journals.

Jill Jackson, Managing Editor of *Annals of Internal Medicine* and CSE's Editorial Policy Committee co-chair, moderated another of the two didactic sessions on offer for day one titled "Evolving Policies and Opportunities for Generative AI". Jackson's panel included Charlotte Huag, Executive Editor of NEJM AI; Annette Flanagin, JAMA Network VP of Editorial Operations; Timothy McAdoo, APA Style editor; and Silverchair's Stuart Leitch. Panelists explored ways in which generative AI can be used to improve editorial and publishing processes, such as by assisting authors with language, references, and statistical analyses, and reporting standards, and assisting publishers with submission screening, triage, reference validation, and discoverability.

Day two's general session, titled "Large-scale Threats to Research Integrity", was moderated by Alex Kahler, Director of KGL Editorial and co-chair of the Fall Symposium. She was joined by Dr Michael Pemberton, a professor of English at Georgia Southern University and co-principal investigator of the Text Recycling Research Project, a National Science Foundation-funded research study of text recycling ethics, practices, and policies in STEM journals. The panel also included Renee Hoch, manager of the PLOS Publication Ethics team, and Luigi Longobardi, Director of Publishing Ethics & Conduct at IEEE. The panelists explored a variety of tactics used by paper mills that threaten the integrity of the scientific record, such as selling content, fabricating or plagiarizing content, selling authorship, and manipulating peer review. While Michael focused on the difference between text that is ethically versus unethically recycled, Luigi and Renee shared their organizations strategies

CONTINUED

for detecting and preventing the activity of paper mills and discussed resources available to journals from the Committee on Publication Ethics and the STM Hub to assist both detection and prevention.

Following day two's general session, Patty Baskin, Senior Director of Publications at the American Academy of Neurology and a founding member of the Coalition for Diversity in Scholarly Communications (C4DISC), moderated and presented a didactic/work group session pair entitled "Partnerships of Institutions and Journals in Scientific Integrity Issues: Viewpoints of Research Integrity Officers, Editors, and a Legal Advisor". Baskin was joined by a large panel of experts, including Debra Parrish, who previously worked as an attorney at the Office of Research Integrity; Lauran Qualkenbush, Senior Director for Research Integrity and Training and the Research Integrity Officer at Northwestern University; Dr Christina Bennett, Assistant Director and Publisher of Editorial Development at the American Chemical Society; and Dr Susan Garfinkel, Associate Vice President for Research Compliance and Research Integrity Officer at The Ohio State University. The panelists discussed how institutions and journals are working together to improve transparency and collaboration between institutions and journals to better ensure the validity of the research record, allow earlier communications between the two groups, and raise author awareness for how journals manage and report potential research misconduct concerns. The group also discussed the legal risks journals may face during a research misconduct allegation and the need for journals to exercise caution during investigations.

The second didactic/work group session pairing on day two, "Licensing Content: Navigating Permissions, Copyright, and Site License Agreements", was moderated by Amy King, Senior Managing Editor at KGL Editorial and chair of the CSE Marketing Committee. Amy was joined by Aileen McHugh, Senior Associate Publisher and Director of Sales and Circulation at the American College of Physicians; Elliott Hibbler, Head Librarian at Boston College; and Lauren Tulloch, Vice President & Managing Director at Copyright Clearance Center. Panelists discuss how publishers and authors can better navigate rights and permissions for their content in the landscape of site licensing agreements, text and data mining, and copyright regulations, particularly with the advent of AI tools.

Altogether, the general sessions, didactic sessions, and work groups presented attendees with a wealth of information regarding both research integrity and AI, two areas at the forefront of today's quickly evolving scholarly publishing landscape. While there was some discussion of journal policy regarding the use of AI, many participants in the work groups were focused on how journals and publishers can use AI tools to both improve publishing processes and to detect and prevent threats from paper mills and other large scale threats. Following on the success of these sessions, we may expect to see further follow up at CSE's upcoming Annual Meeting in May 2024.