

Trends of online presence and Artificial Intelligence usage in scholarly publications: A case study based on the University of Colombo, Sri Lanka

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The rapid growth of digital platforms and Artificial Intelligence (AI) is reshaping how scholarly communication is produced, shared, and evaluated. Academic conferences, a key channel for disseminating new knowledge, increasingly rely on institutional repositories and online platforms to make research outputs visible to a broader audience. At the same time, AI tools are becoming embedded in academic writing, raising opportunities and concerns. Against this backdrop, the present study investigates the trends in online availability of conference abstracts and examines the extent of AI usage in their preparation, drawing on five years of conference data from the University of Colombo (UOC). This study aimed to: (a) examine the trends in uploading research abstracts to online platforms and institutional repositories, and (b) explore the use of AI in abstract writing. Proceedings of the annual research conferences of the university from 2020 to 2024 were used as the primary dataset. A quantitative approach was adopted, with Turnitin (TII) employed to check online presence and to identify AI usage. One thousand six hundred ninety-five abstracts have been published across the five years, with the highest number published in 2020 (381) and the lowest in 2022 (285). Average online presence increased from 20.59% in 2020 to over 98% in 2021–2023, though it dropped to 55.07% in 2024, possibly due to an Institutional Repository (IR) malfunction, indicating that many abstracts were not uploaded to the IR or other platforms, limiting plagiarism detection through TII. Average AI usage in abstracts rose steadily, from 0.13% (2020) to 0.41% (2022), 4.44% (2023), and 14.24% (2024). Except for 2021, this reflects a growing reliance on AI tools in academic writing. The findings highlight the importance of increasing the presence of research outputs on academic platforms to detect plagiarism, which will also enhance global accessibility, improve citation rates, and strengthen both researcher h-indexes and university rankings. However, while wider visibility aids plagiarism detection, it does not fully safeguard copyright. The rising use of AI underscores the need for clear policies and training in ethical AI-assisted writing. Properly harnessed, AI can improve quality and support publication in high-impact journals, contributing to the university's academic integrity. Future studies could expand to other universities and publication types for comprehensive findings. The librarians are responsible for initiating and supporting policy development and implementation, as well as raising awareness of these aspects.

Keywords: *AI usage, Online presence, Plagiarism prevention, Scholarly publications, Sri Lanka, University of Colombo*