Reflections on the "Ethics Guideline for using Generative Artificial Intelligence in Scientific Research and Publication Process of Higher Education Institutions"

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Artificial intelligence (AI) is a disruptive technology with immense innovation and dissemination potential. Scientific research and publishing are among the domains in which AI has significant avenues for application. The most common applications of AI in scientific research and publishing include translation, proofreading, and grammar checks. The introduction of generative AI (Gen AI) has expanded the use of AI because of its ability to generate new content, such as texts, images, or data sets, when provided the right prompts. This extensive application has initiated inquiries about the ethical implications of involvement of AI in the scientific research and publishing sector, including the potential to disrupt scientific integrity and diminish confidence in science, as well as concerns regarding bias, accuracy, authorship, authenticity, and factual errors.[1-3] Scientific communities have observed concrete examples of ethical misconduct in the use of Gen AI in scientific writing, which emphasizes the urgent need for academicians to receive guidance.[4,5]

The initial step in resolving ethical issues was undertaken by publishers regarding the implausibility of bestowing authorship to AI and holding authors accountable for their academic work, even if AI was employed only in certain parts of it.[6] Although this was a significant step, it was rendered insufficient before it was fully implemented due to the substantial improvements in Gen AI and its increasing use in academic work.[7] Eventually, the challenge of regulating the responsible use of Gen AI in academics will be realized. The ethical application of Gen AI is a dynamic target that necessitates a flexible, imminent response to emerging issues presented by the release of new versions of the technology.

In this respect, the "Ethics Guide of Generative Artificial Intelligence Use in the Scientific Research and Publication Process of Higher Education Institutions"[8] issued by the Turkish Council of Higher Education is an essential initiative to offer guidance for the responsible and ethical use of Gen AI in Turkish academia. This guideline is of particular significance for the Turkish academic community because it is the sole national legislation that establishes the ethical use of Gen AI in scientific research and academic publications. The convenience and speed provided by Gen AI tools in scientific research and academic writing may induce academics under 'publish or perish' pressure to rely on such tools. While simultaneously diminishing trust and respect for science, this can undermine the authenticity, quality and validity of scientific research.[9] Understanding and effectively applying this guideline by the academicians will be a crucial factor in mitigating ethical issues. This guideline aims to assist Turkish higher education institutions and academicians to comprehend opportunities and reduce risks of integrating Gen AI tools into their work while preserving research integrity, thereby supporting the credibility of academic and scientific work.

The guideline describes transparency, integrity, diligence, justice and respect, privacy, confidentiality, accountability, and contributing to an ethical climate as the core moral values for Gen AI use. The guideline presents recommendations for the use of Gen AI systems and addresses frequently asked questions regarding the moral integrity of the scientific work. This guideline functions as a moral compass for scientists, ensuring that they take all necessary precautions to prevent ethical breaches. Furthermore, it is a regulatory document that binds all Turkish academicians to ensure ethical compliance while incorporating Gen AI tools into their academic work. Therefore, it is essential that research institutions, universities, journals' editorial teams, and any other partner in scientific research or academic publication consider this guideline to preserve the research integrity, the responsible conduct of scientific research, and publication ethics.

Since this document is not a legal regulation but a guideline, it can therefore be revised to address novel ethical concerns as technology evolves. In the domain of scientific knowledge generation and publishing, it is a shared responsibility of all actors to remain vigilant for ethical breaches or potential ethical risks posed by the emerging AI technology and to contribute to the timely update of the guideline.

The "Ethical Guide on the Use of Generative Artificial Intelligence in the Scientific Research and Publication Process of Higher Education Institutions" published by the Council of Higher Education, represents a crucial step in resolving the ethical challenges presented by the integration of Gen AI into the academic world. This guide highlights the significance of upholding core values such as transparency, honesty, and accountability in view of the rapidly evolving technology. Its function as a moral compass and a flexible regulatory framework ensure that Turkish academic institutions can adapt to new ethical dilemmas as technology advances, thus sustaining the trust and reliability of scientific research.

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