Ways to use AI tools to increase your efficiency

Gareth Dyke, Ph.D
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Consultant & Editor

- Educational Director: Bentham Science, ReviewerCredits and MARS-Global
- Editor w/ Zheijiang University Press
- Editor-in-Chief w/ Taylor and Francis (> 20 years)
- Academic researcher in the UK, Ireland and US (> 25 years)
- Author of more than 370 peer reviewed papers (inc Nature and Science)
- Accredited course leader / teacher by UK and Irish HEAs
- Dedicated to helping researchers achieve their potential!
The ethical use of AI tools

Springer Nature, the world’s largest academic publisher, has clarified its policies on the use of AI writing tools in scientific papers.

However, Springer says it has no problem with scientists using AI to help write or generate ideas for research, as long as this contribution is properly disclosed by the authors³.

The company announced that software like ChatGPT can’t be credited as an author in papers published in its thousands of journals.

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Elsevier has announced a new author policy on AI and AI-assisted tools in scientific writing. The policy states that authors should not list AI and AI-assisted technologies as an author or co-author or cite AI as an author.

The policy also states that authors should disclose the use of AI and AI-assisted technologies in the writing process by adding a statement at the end of their manuscript.

The statement should include the name of the tool or service used, the purpose for using it, and the limitations of the tool or service.
<table>
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<th>The policy is <strong>intended to ensure that the authorship of scientific papers is attributed to the human authors</strong> who are responsible for the content of the paper.</th>
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<td>The policy also aims to prevent the <strong>misuse of AI and AI-assisted technologies in scientific writing</strong>, such as using them to generate plagiarized or fraudulent content.</td>
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<td>The policy is a positive step <strong>towards ensuring the integrity of scientific research</strong>.</td>
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<td>It is important to note that the policy <strong>does not prohibit the use of AI and AI-assisted technologies in scientific writing</strong>.</td>
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<td>The policy simply requires that authors <strong>disclose the use of these tools and take responsibility for the content of their papers</strong>.</td>
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AI tools for editors

• Checking text and proofreading documents
• Plagiarism checking, eg Figures
• Authorship checking
• Statistics
Level playing field for ESL scholars

- Translation
- Editing
- Drafting abstracts*
- Writing practice*

* = ChatGPT inspired
A Cooperative Research Advisor

- Grant ideas
- Experimental techniques
- Data analysis
- New areas of research*
The study "Early Extracorporeal CPR for Refractory Out-of-Hospital Cardiac Arrest" by Sovereign et al. published in the New England Journal of Medicine in 2023 evaluates the use of extracorporeal cardiopulmonary resuscitation (ECPR) in patients with refractory out-of-hospital cardiac arrest (OHCA). The study included patients with OHCA who failed to respond to traditional cardiac resuscitation measures and found that early initiation of ECPR was associated with higher rates of return of spontaneous circulation (ROSC) and improved survival to hospital discharge compared to conventional cardiac resuscitation alone.

In comparison, the study "Effect of Intra-arrest Transport, Extracorporeal Cardiopulmonary Resuscitation, and Immediate Invasive Assessment and Treatment on Functional Neurologic Outcome in Refractory Out-of-Hospital Cardiac Arrest: A Randomized Clinical Trial" found that ECPR was associated with improved functional neurologic outcomes in patients with refractory OHCA. The study "Advanced Reperfusion Strategies for Patients with Out-of-Hospital Cardiac Arrest and Refractory Ventricular Fibrillation (ARREST): a Phase 2, Single Centre, Open-Label, Randomized Controlled Trial" found that advanced reperfusion strategies, including ECPR, improved outcomes in patients with refractory OHCA.

Overall, these studies suggest that ECPR may be a useful treatment option for patients with refractory OHCA and that early initiation of ECPR may improve survival and neurologic outcomes. Further research is needed to fully understand the benefits and limitations of ECPR in this patient population.
Personal peer reviewer

- Review for articles
- Review for grants
- Ensure research is novel
- Identifying gaps in lit review*

A counterclaim to your statement could be that ChatGPT can actually be a valuable tool for students and educators in schools. Here are some arguments that could be made:

1. Enhance education: ChatGPT can provide students with instant access to information and knowledge on a wide range of subjects. This can enhance the learning experience and help students expand their knowledge and understanding.
2. Improving writing skills: ChatGPT can provide students with suggestions for improving their writing and help them understand the proper use of grammar and language.
3. Accessibility: ChatGPT can be especially beneficial for students with learning difficulties or disabilities, as it provides them with a conversational interface to access information and knowledge.
4. Saving time: ChatGPT can help educators save time by answering frequently asked questions and handling repetitive tasks, allowing them to focus on more important aspects of their jobs.

These are just a few examples of how ChatGPT could be seen as a valuable tool in schools, rather than a tool that should be banned.
How AI tools can help researchers (editors need to know ...)

1. Research question: Define a research question that is relevant and important to the field of clinical research. This question should be focused and testable.

2. Literature review: Conduct a thorough literature review to determine what is currently known about the research question and to identify any gaps in the literature.

3. Study design: Choose an appropriate study design that will answer the research question. This could include a randomized controlled trial, observational study, or other study design.
4. Participant selection: Identify the population of interest and recruit participants for the study. Participants should meet the inclusion criteria and not meet the exclusion criteria.

5. Data collection: Collect data using appropriate measures and methods. This could include surveys, interviews, medical tests, or other measures.

6. Data analysis: Analyze the data using appropriate statistical methods. This could include descriptive statistics, inferential statistics, or other types of analysis.

How AI tools can help researchers II
How AI tools can help researchers III

7. **Results**: Interpret the results and present them in a clear and concise manner. This could include tables, figures, or other visual aids.

8. **Discussion**: Discuss the results in the context of the literature and the research question. Identify any limitations of the study and suggest areas for future research.

9. **Conclusion**: Draw conclusions based on the results and the discussion. Emphasize the significance of the findings and their implications for clinical practice.
10. **Manuscript preparation:**
Prepare the manuscript according to the guidelines of the target journal. This could include writing the introduction, methods, results, discussion, and conclusion sections, as well as formatting the manuscript and preparing any supporting materials.

11. **Peer review:**
Submit the manuscript for peer review and respond to any comments or revisions requested by the reviewers.

12. **Publication:**
Once the manuscript has been accepted for publication, proofread and finalize the manuscript and prepare any additional materials required by the journal.
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