AI in Academic Writing and Publishing

The Present and Future

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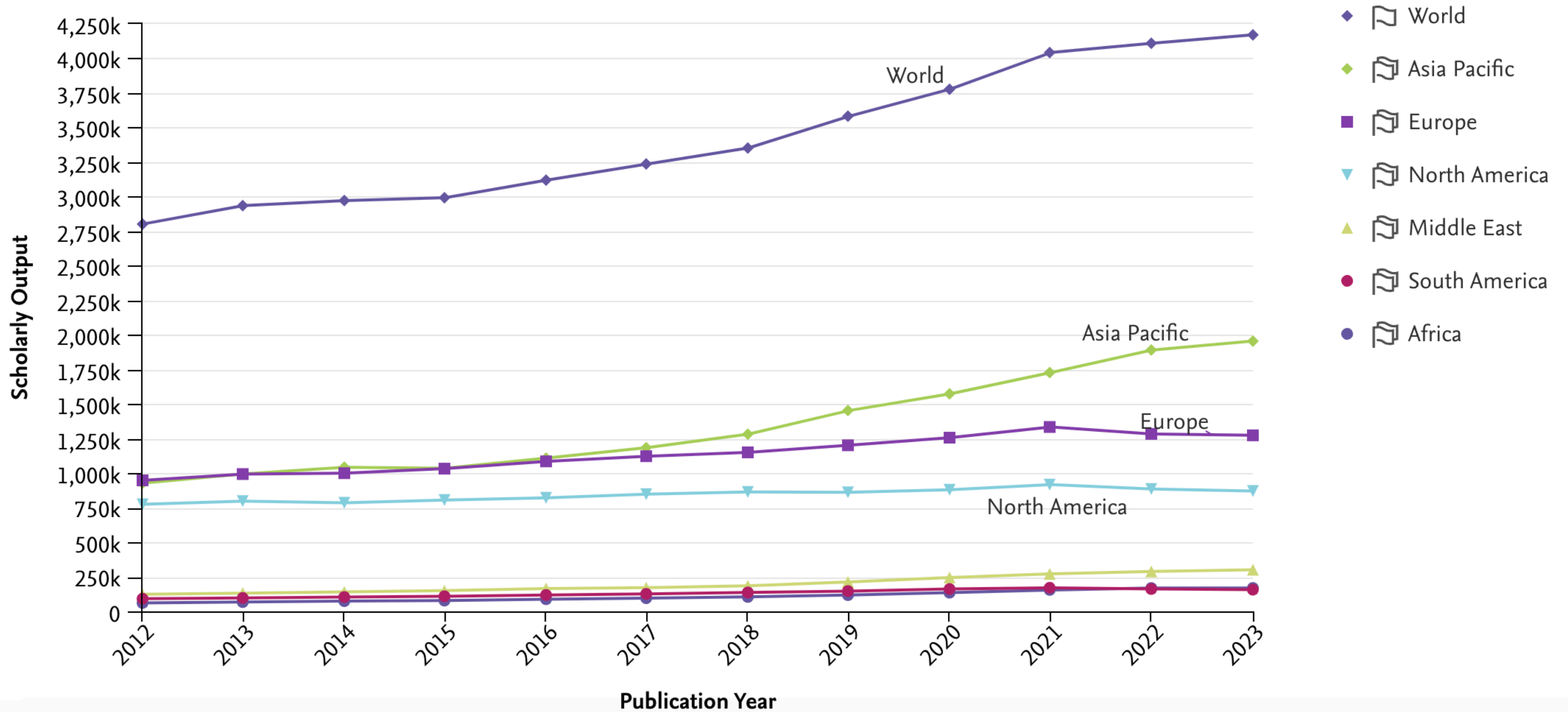✉ j.jang@elsevier.com

in Johan Jang

Question 1:

Is the number of global publications increasing or decreasing year over year?

Question 2:

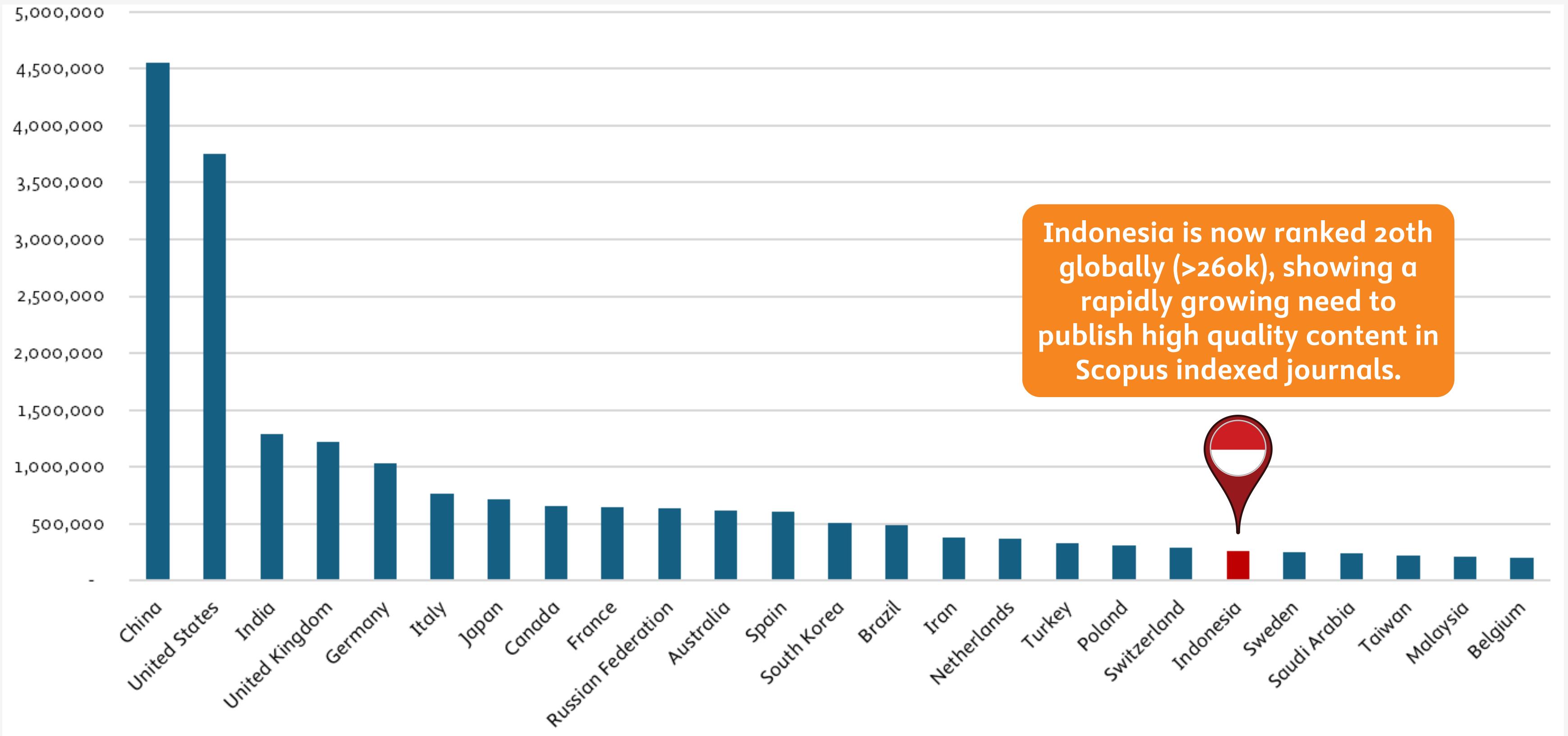Which region is the largest contributor? Is it North America, Europe, or another region?
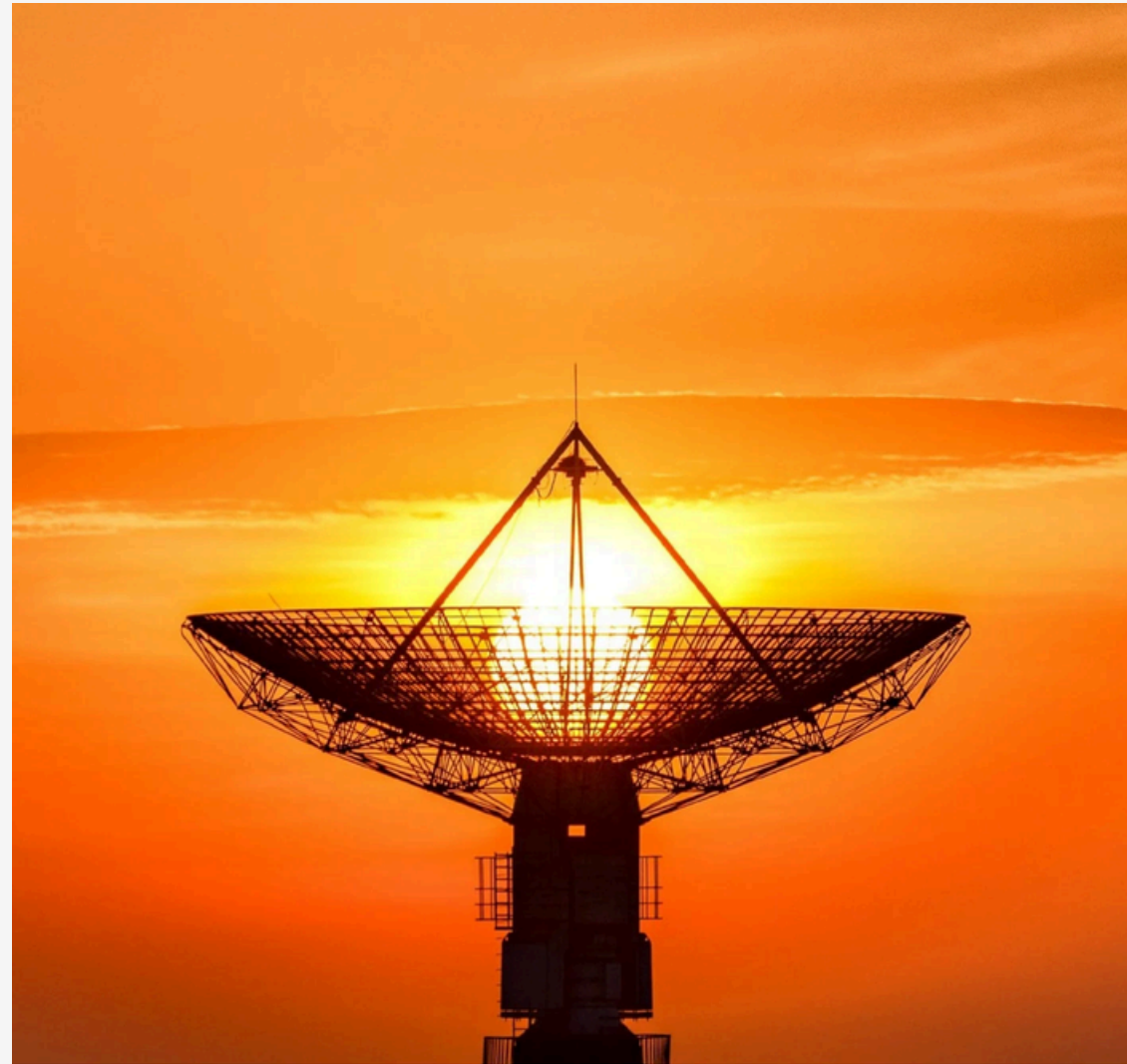
Research Landscape: the World

Question 3:

What is Indonesia's standing in research output globally?

Research Landscape: Indonesia and the World

Indonesia is now ranked 20th globally (>260k), showing a rapidly growing need to publish high quality content in Scopus indexed journals.

View from the top

Academic leaders' and funders' insights on the challenges ahead

Published March 2024

View from the Top: Academic Leaders' and Funders' Insights on the Challenges Ahead explores the complex issues academic leaders and funders face, their preparedness to tackle them, and the strategies they're developing to ensure long-term success for their institutions. Developed from interviews of over 100 global senior leaders.

View from the Top
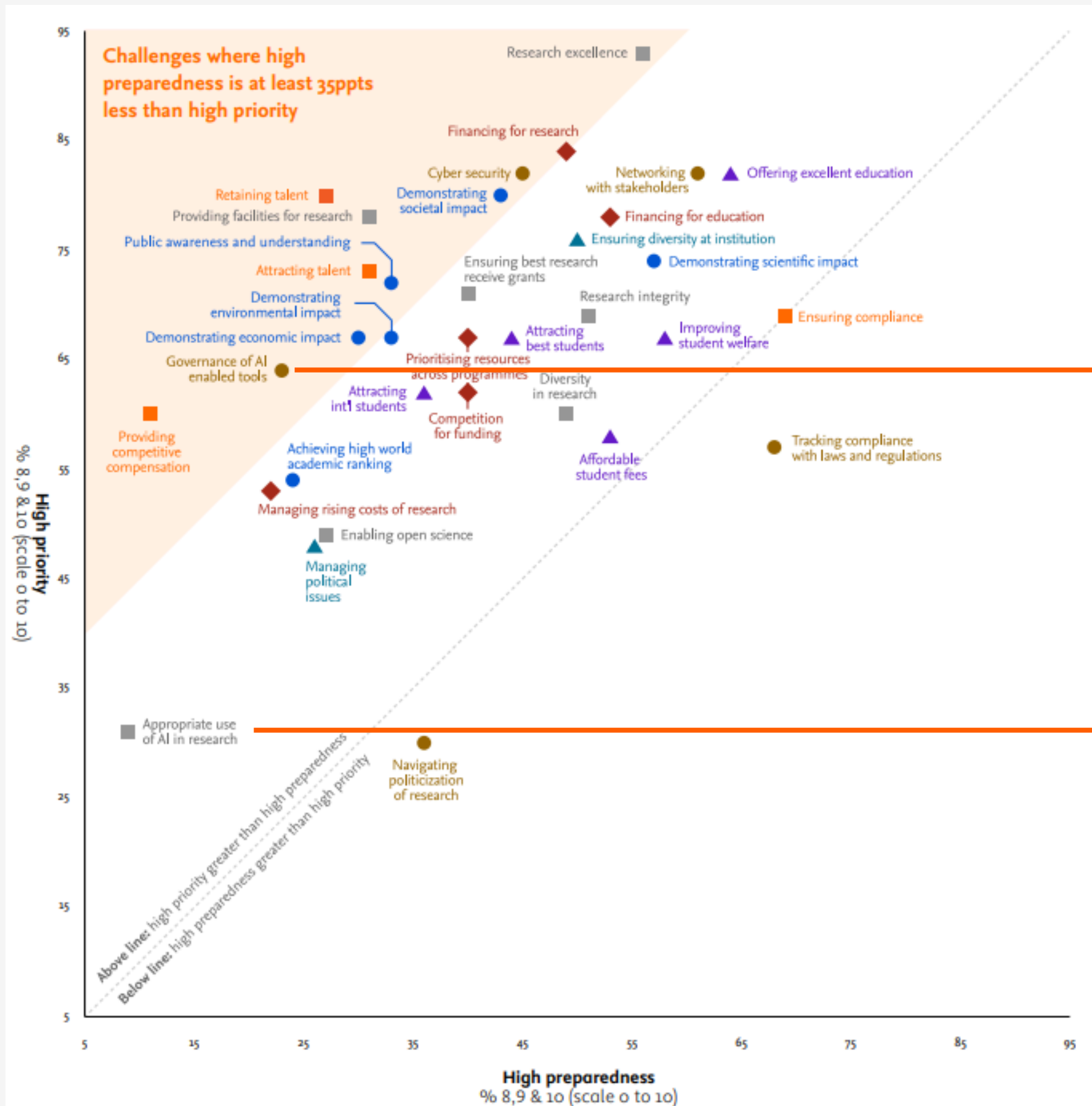
Governance of AI

is one of the highest priority for global academic leaders. However, preparedness is one of the lowest.

Appropriate Use of AI

in research considered not to be a high priority right now, and preparedness is also the lowest.

64% say AI governance is a high priority but only 23% are well prepared for this challenge.

> " We know AI is here... and will integrate into every facet of work. It means in all our academic programs, how do we – both in education and research – prepare the future workforce with the skill sets that are going to be expected when they go out in the workforce? ... How we create research capabilities and support systems from a research standpoint is something that is deeply on my mind and is very important."
>
> — Academic Leader, the Americas

> " [AI] can undermine the basis on which we conduct assessment. It can lead to the falsification of research results, but it can also give organizations a significant edge in terms of back-of-house efficiency. A lot of universities will be scrambling now to make sure that they're taking full advantage of those efficiencies, so they can invest the money saved elsewhere."
>
> — Academic Leader, APAC

Elsevier's Point of Views on AI, especially on writing and publishing research
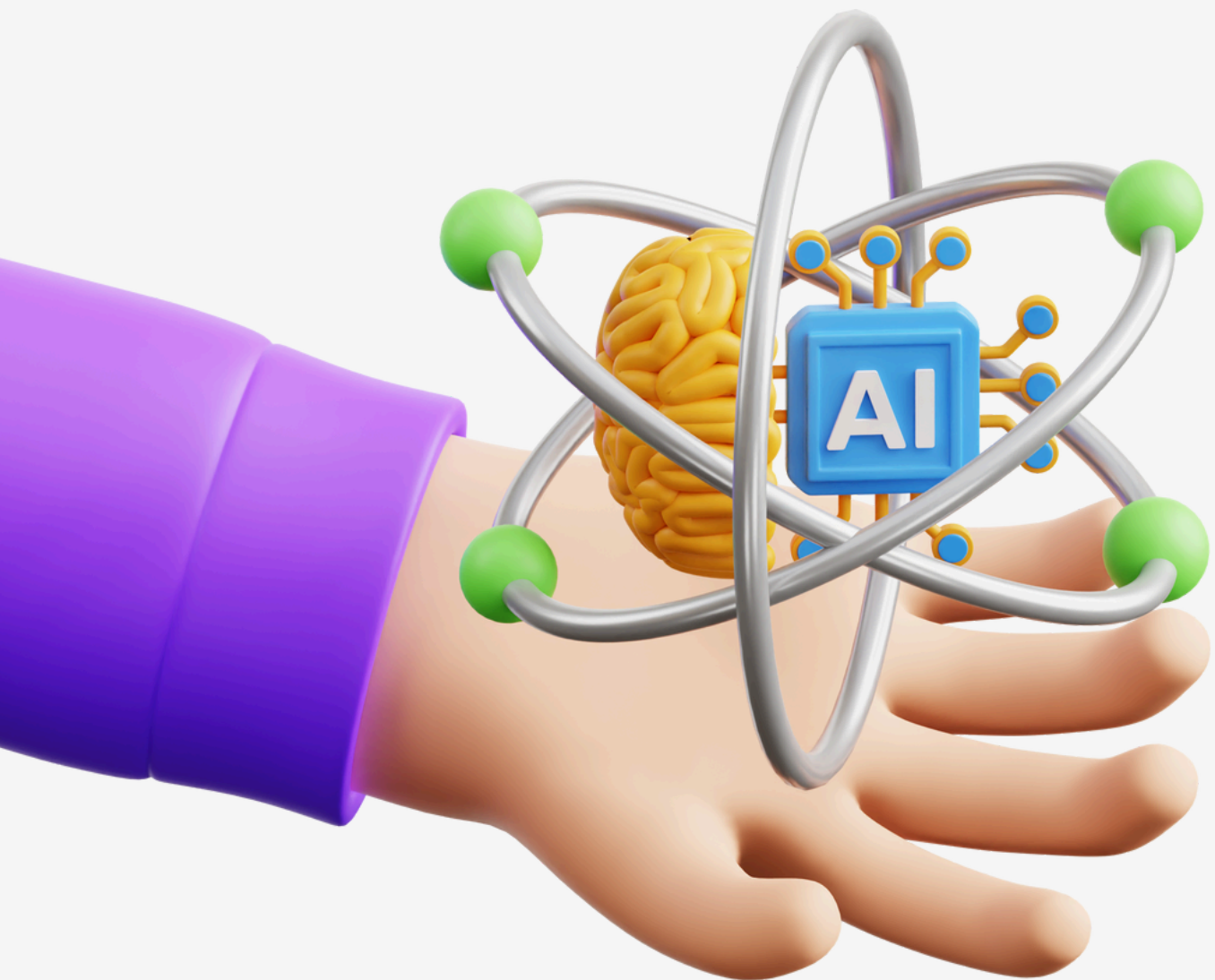
AI can be used!

However, it's critical to proceed with caution and strictly adhere to policies.

Why with caution?

- Inauthentic sources
- Inaccurate data
- Loss of human expertise
- Ethical concerns
- Limited understanding of context by the AI tool
- Security and Privacy
- Lack of creativity and originality

Elsevier will monitor this development and will adjust or refine AI related policy when appropriate.

Our focus is on the writing process, and not to the use of AI tools to analyze and draw insights from data as part of the research process.

What author(s) can use AI for?

These technologies should only be used to improve <u>readability and language of the work.</u>
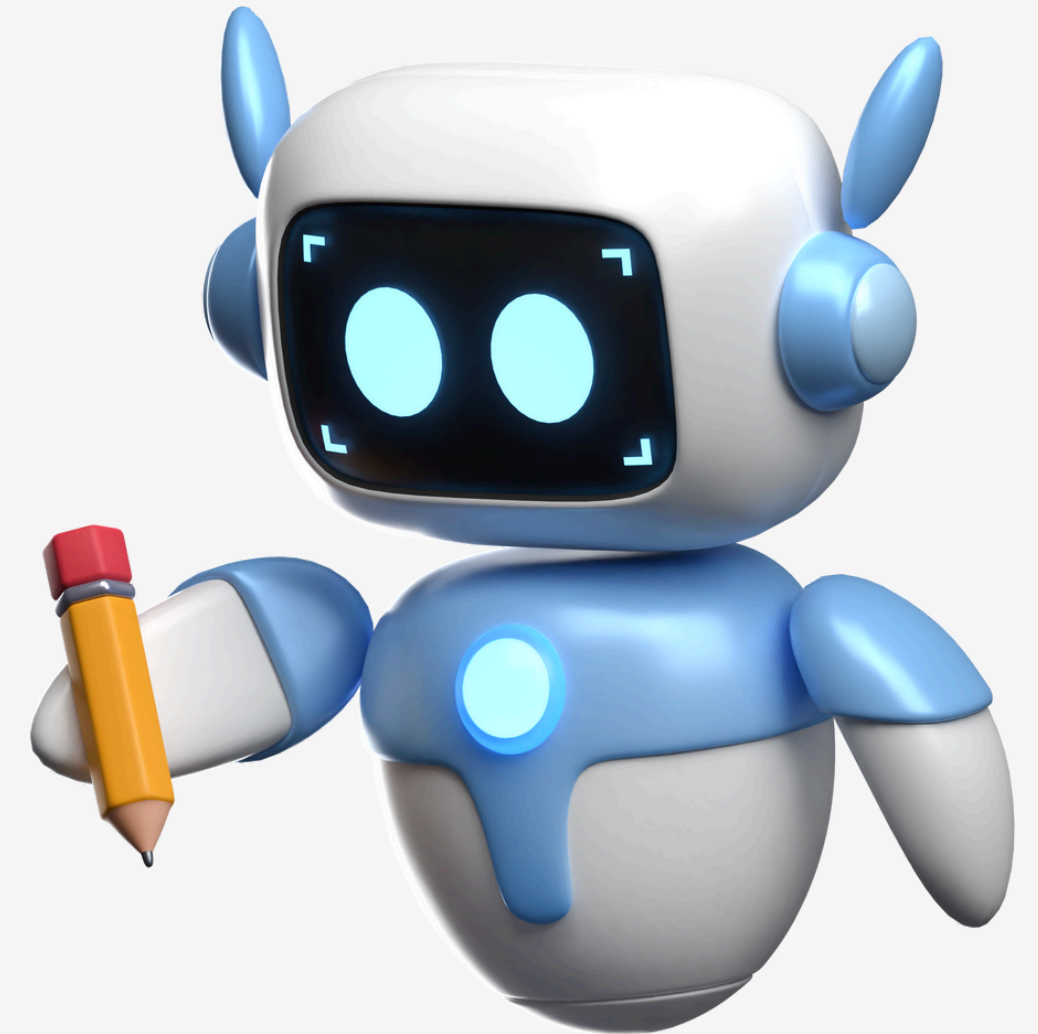
# What author(s) cannot use AI for?

Replace key authoring tasks such as:

- Producing scientific work, pedagogic, or medical insights

- Drawing scientific conclusions, or

- Providing clinical recommendations.
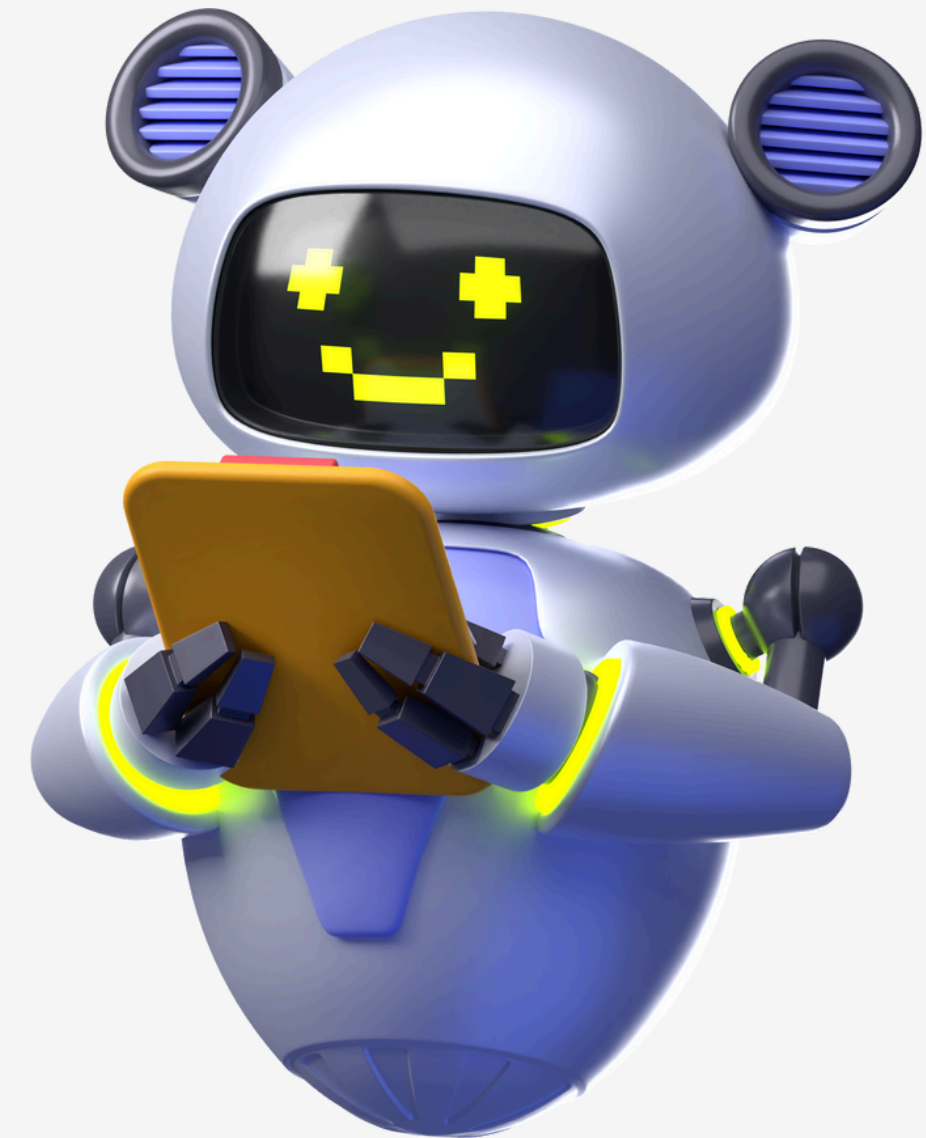
# What author(s) should be aware of when using AI for writing purpose?

<u>Human oversight!</u>

All work should be reviewed and edited carefully, because AI can generate authoritative-sounding output that can be incorrect, incomplete, or biased.
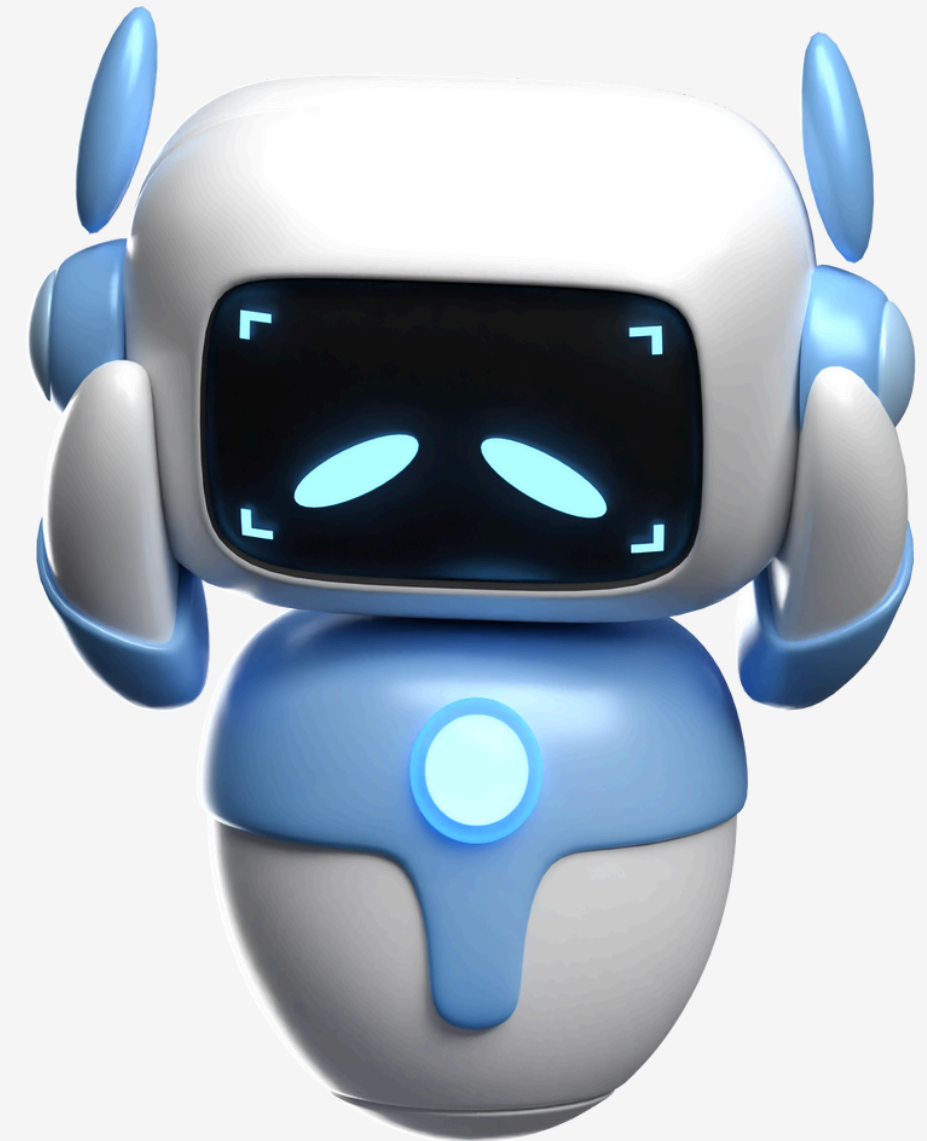
What author(s) should be aware of when using AI for writing purpose?

Why Human oversight?

Because the authors are ultimately responsible and accountable for the contents of the work.
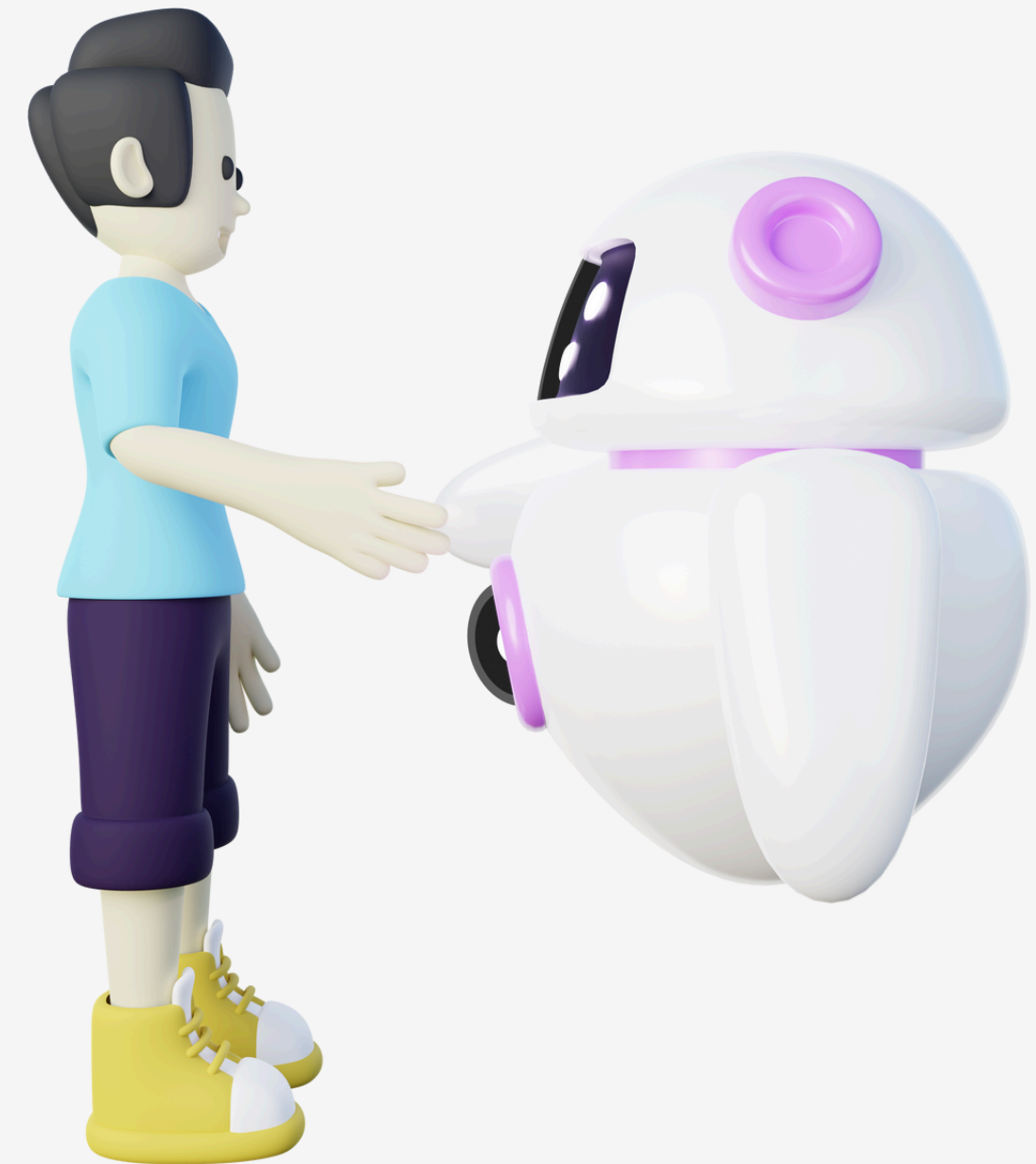
Can researchers use software to check grammar and spelling errors? Even though the software might use AI?

YES

This practice had been done since years ago.

## What about reference manager software which might use AI?

<u>CAN</u>

- Authors can collect, organize, annotate, and use references to scholarly articles – such as Mendeley,etc.
- These tools can be used by authors without disclosure.

If author(s) did use AI assisted tech in writing, should it be disclosed?

- Authors should disclose in their manuscript the use of AI and AI-assisted technologies and a statement will appear in the published work.
- Declaring the use of these technologies supports transparency and trust between authors, readers, reviewers, editors, and contributors and facilitates compliance with the terms of use of the relevant tool or technology.
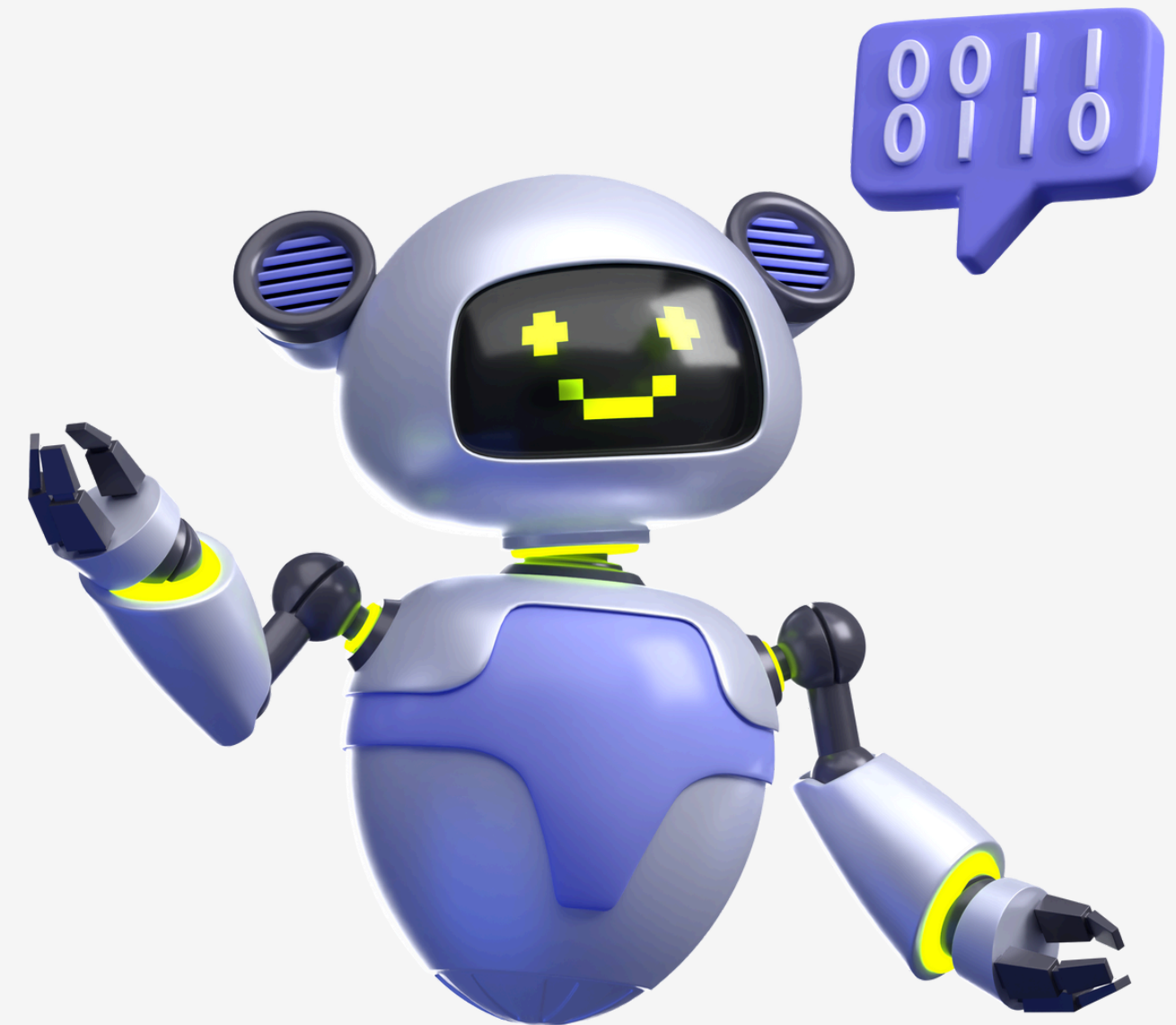
Where should it be disclosed?

- We ask authors who have used AI or AI-assisted tools to insert a statement at the end of their manuscript immediately above the references or bibliography entitled 'Declaration of AI and AI-assisted technologies in the writing process'.
- In that statement, we ask authors to specify the tool that was used and the reason for using the tool. We suggest that authors follow this format when preparing their statement:

During the preparation of this work the author(s) used [NAME TOOL / SERVICE] in order to [REASON]. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

What author(s) should not do after using AI in writing?

- Authors should not list AI and AI-assisted technologies as an author or co-author, nor cite AI as an author.
- Authorship implies responsibilities and tasks that can only be attributed to and performed by humans.
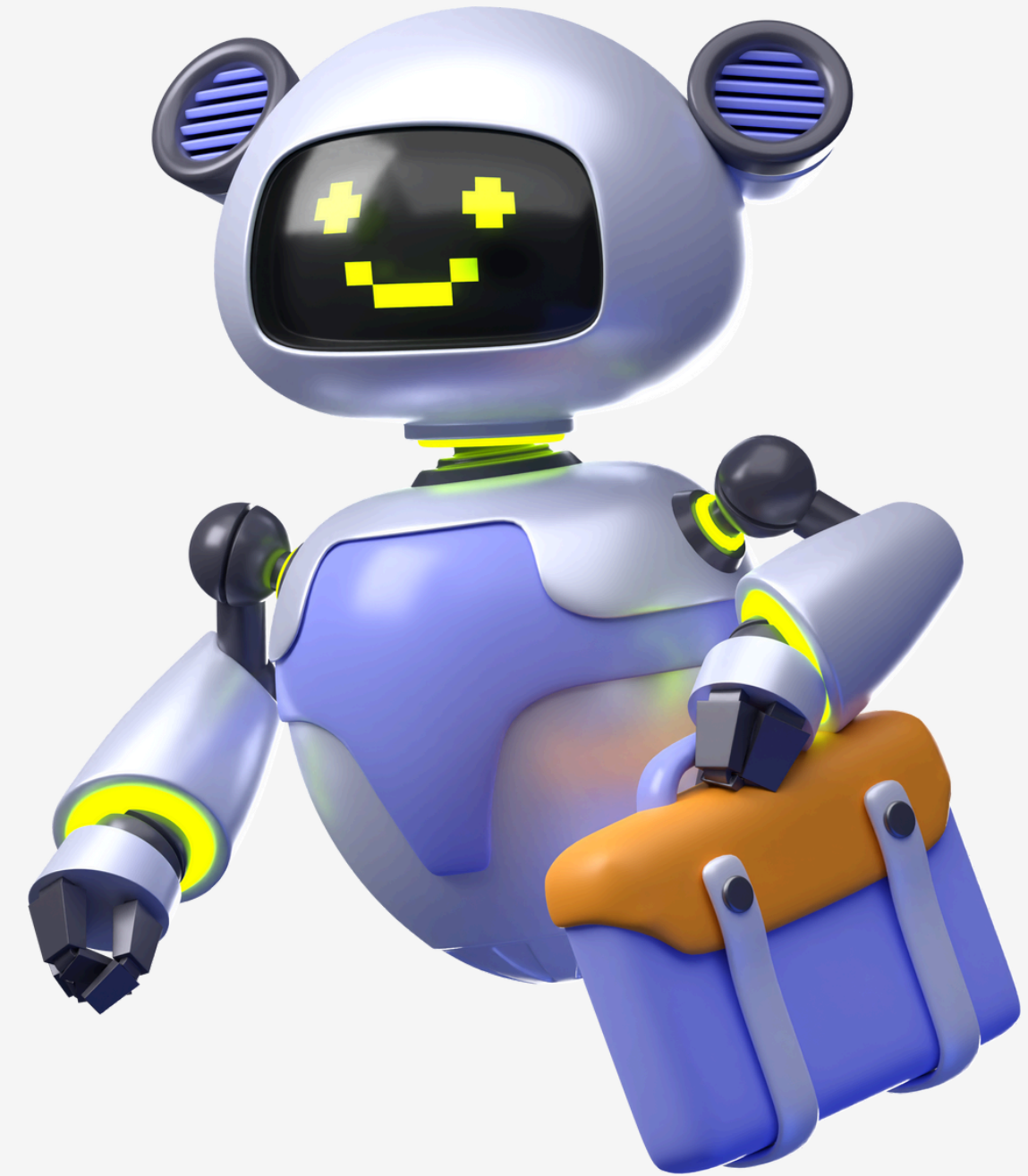
The use of generative AI and AI-assisted tools in figures, images and artwork

- Elsevier does not permit the use of generative AI or AI-assisted tools to create or alter images in submitted manuscripts.
- This may include enhancing, obscuring, moving, removing, or introducing a specific feature within an image or figure.
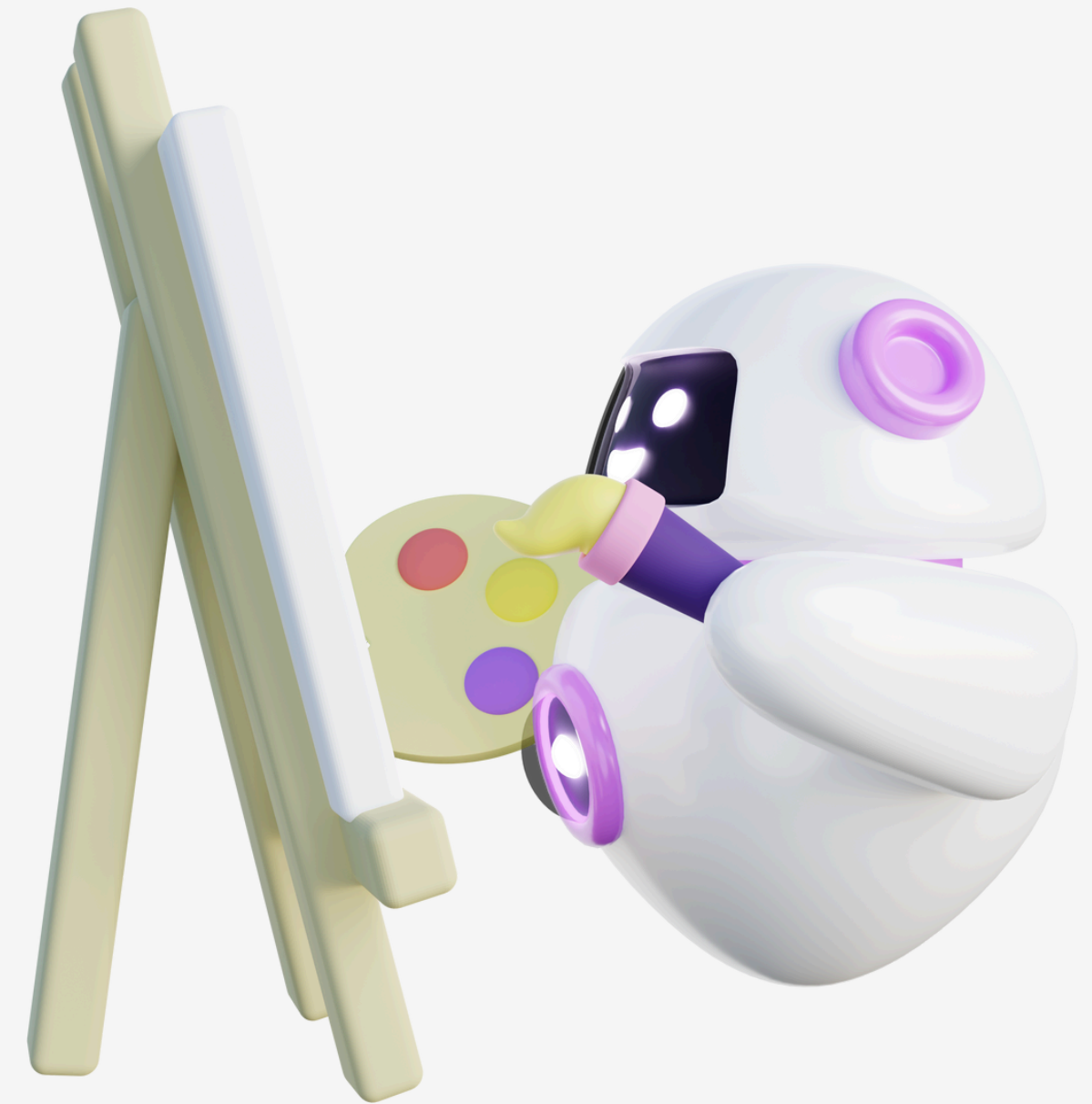
So no image can be produced by AI?

- Adjustments of brightness, contrast, or color balance are acceptable if they do not obscure or eliminate any information present in the original.
- Where applicable, authors could be asked to provide pre-AI-adjusted versions of images and/or the composite raw images used to create the final submitted versions, for editorial assessment.
- The use of generative AI or AI-assisted tools in the production of artwork such as for book or commissioned content covers or graphical abstracts is not permitted.

Can authors use AI to support research design or method part?

- We recognize that the use of such technology is common in many fields.
- Where AI or AI-assisted tools are used in this context, they should be described as part of the methodology of the work, with details provided in the Methods section, if relevant, or in a separate section preceding references or bibliography.
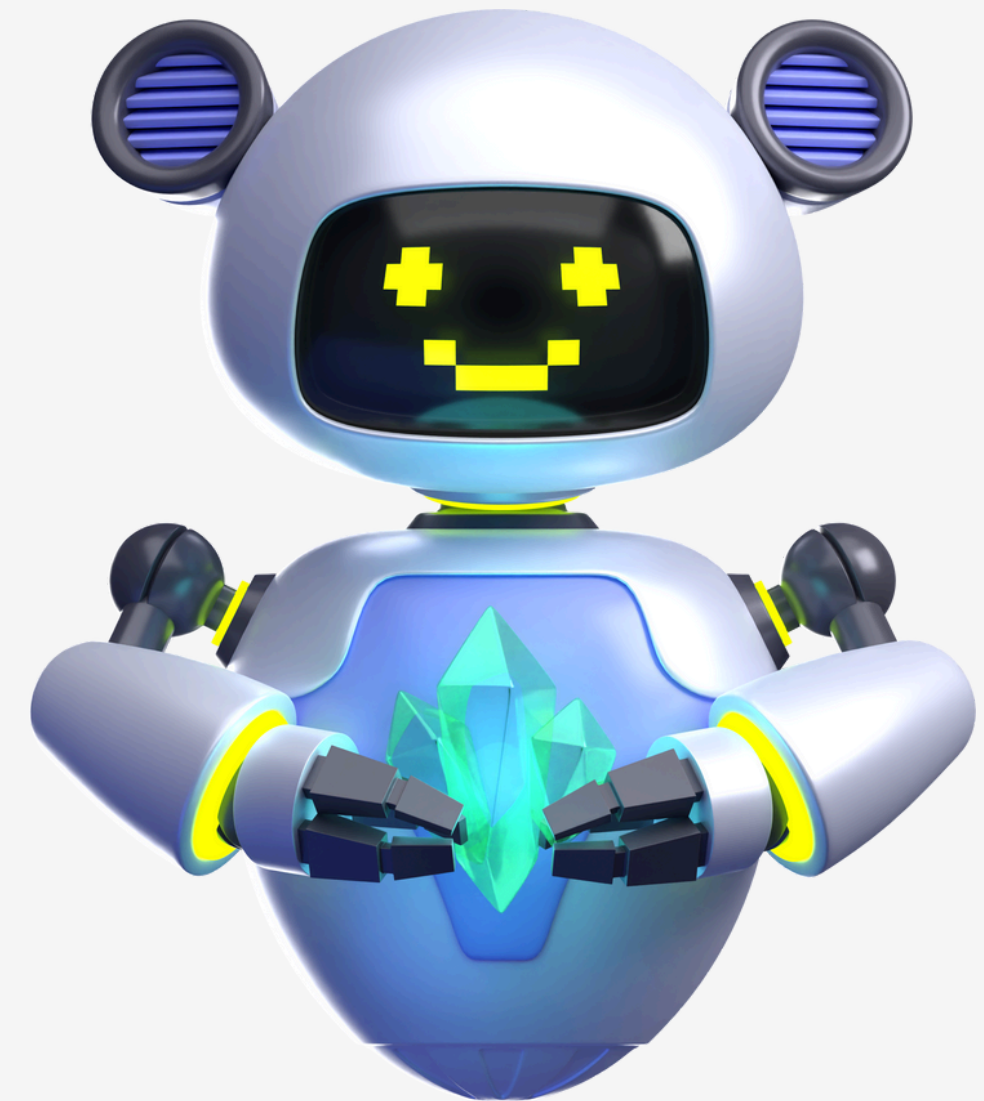
Is AI utilized by Elsevier?

YES!

ScienceDirect

Scopus AI

Thank You

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in Johan Jang