

The top 10 AI tools for academic surgeons right now

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Artificial intelligence (AI) is no longer a concept of the future, but an essential component of contemporary academic research, profoundly impacting various human factors. The integration of AI-powered tools in research methodologies can significantly enhance efficiency and accuracy, revolutionizing the way academics work. For instance, AI can expedite the academic writing process by automating literature reviews, analysing vast amounts of data, and identifying patterns and relationships that may otherwise be missed. As we continue to explore and embrace these AI-powered tools, researchers will not only be able to streamline their workflow but also elevate the quality and impact of their research, thus accelerating the pace of academic discoveries. To date, most academic surgeons are not aware of the arsenal of tools available for use in their academic research. Although these tools will exponentially grow over the next months and years, we aim to summarise our current top 10 AI-powered tools for academic surgeons. We hope that this sparks a wider interest into AI from our research community. Of note, our list excludes ChatGPT, as this has been discussed in other parts of the literature [1].

The following is a summary of our top 10 AI tools for academic surgeons:

1. Scite

<https://scite.ai/assistant>

Scite is an AI-powered tool that plays a transformative role in academic re-

search by providing detailed analysis of citation context, finds sources for your statements or paragraphs, and may even draft grant proposals.

2. Jenni AI

<https://jenni.ai/>

Jenni AI is another AI-powered tool that acts as an assistant whilst writing academic work, aiding in paraphrasing or rewriting text, autocompleting lines of text as you write and providing an innovative cite as you write feature.

3. Chat

<https://chatdoc.com/>

ChatDOC is a ChatGPT-based file-reading assistant. Once your PDF is uploaded, it can be used to extract, locate and summarise information, which users may find extremely helpful especially when performing literature reviews. For example, the user may chat with the file, enabling rapid identification of specific data points, data analysis and data extraction.

4. Explain paper

<https://www.explainpaper.com/>

Explain paper is an AI-powered tool that can help rationalise research papers. This tool provides an explanation of highlighted text, allowing the user to understand the article in more depth.

5. Humata

<https://www.humata.ai/>

Humata is another ChatGPT file-reading assistant, helping to rapidly summarise

articles. It also provides a powerful question and answer tool that can help extract data, key findings, and limitations from research articles.

6. Elicit

<https://elicit.org/>

Elicit is another AI-powered research assistant. The user inputs a research question, triggering Elicit to find and sort relevant papers, without the need for a perfect keyword match. Like other tools, it may also summarise and extract key data from each relevant paper.

7. Quillbot

<https://quillbot.com/>

Quillbot is an AI-powered tool that provides a powerful paraphrasing service. Interestingly, different styles may be utilised, including both formal and simple modes, which can be used in writing both scientific and lay summaries respectively.

8. Spinbot

<https://spinbot.com/>

Spinbot is a similar tool to Quillbot, allowing the user to instantaneously paraphrase text. However, it may also be used to shorten the word count as it paraphrases, which may be helpful to meet some tricky word count limits.

9. Grantable

<https://grantable.co/>

Grantable is an AI tool that streamlines grant proposal writing, whereby the user may upload template material to

train the AI, before inputting the relevant proposal question and editing the generated proposal.

10. Consensus AI

<https://consensus.app/>

Consensus AI is a novel search engine, which combines the best of both Google and Google Scholar, to find insights into research papers. When the user asks a research question, Consensus AI provides an extensive literature search and provides a summary of the available evidence.

AI has the ability to transform the research process, and therefore it is imper-

ative for academic surgeons to adopt the "AI revolution". The above list, although not exhaustive, provides a glimpse into this rapidly growing field. Besides research-specific AI tools, researchers may also benefit from a wide array of other tools, such as for video and audio production, which are outside the scope of this letter. With time, more sophisticated tools will be available helping to streamline and improve the quality of surgical research.

Roles of authors

All authors contributed equally to the conception, writing and review of the paper. All authors are plastic and reconstructive surgery residents.

Conflict of interest statement: The authors declare no conflicts of interest.

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