

Peer Review

Review of: "Creating a Biomedical Knowledge Base by Addressing GPT's Inaccurate Responses and Benchmarking Context"

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I have reviewed your manuscript on GNQA, which introduces an innovative approach to biomedical information retrieval by integrating RAG technology with GeneNetwork. This work addresses an important challenge in managing and synthesizing the ever-expanding scientific literature and demonstrates promising potential. However, I recommend significant revisions to improve the manuscript's clarity, accessibility, and overall impact.

Key Suggestions for Revision:

1. Access to GNQA Tool: Without this information, it is difficult to evaluate or provide constructive feedback on the practical application of the tool and review the manuscript.

The manuscript does not provide a clear link or instructions for accessing the GNQA tool. It is essential to include:

- An active hyperlink or alternative method for tool access.
- Clear, step-by-step instructions for its usage.

2. Clarity and Readability:

- The manuscript would greatly benefit from professional editing to address issues with grammar, sentence structure, and overall readability. Many sections are difficult to follow, which diverts from the innovative nature of the work.
- Some specific suggestions include:

Improving the formatting: Ensure consistency in figures, reference citation numbers, and technical terms.

Reorganizing figures logically: Figures should be presented in the order they are referenced in the text to aid comprehension.

3. Versioning and Technical Definitions:

- Provide consistent versioning information for the AI models used in GNQA.
- Clearly define technical terms when they are first introduced to ensure accessibility for readers unfamiliar with the domain.

4. Prompt Engineering and Examples:

- The prompts provided in the manuscript require revision for repetition, grammar, and clarity. For instance, the example: “Generate 20 questions, for GNQA about research on sugah from the perspective of a domain expert” has grammatical issues and lacks precision.
- Rewriting prompts to reflect proper grammar and meaningful queries will showcase GNQA's potential more effectively.

Final Comments:

These enhancements will help readers better understand and appreciate the innovative combination of AI and biomedical literature search capabilities presented in your work.

Declarations

Potential competing interests: No potential competing interests to declare.