

ProQuest Research Assistant

AI-powered features now live in selected ProQuest products

Developed in partnership with the academic community, ProQuest Research Assistant uses AI reliably and responsibly to tackle common challenges faced by students and researchers. It helps them to:

- Create more effective searches
- Engage with content more deeply and efficiently
- Evaluate documents faster
- Explore new topics with confidence

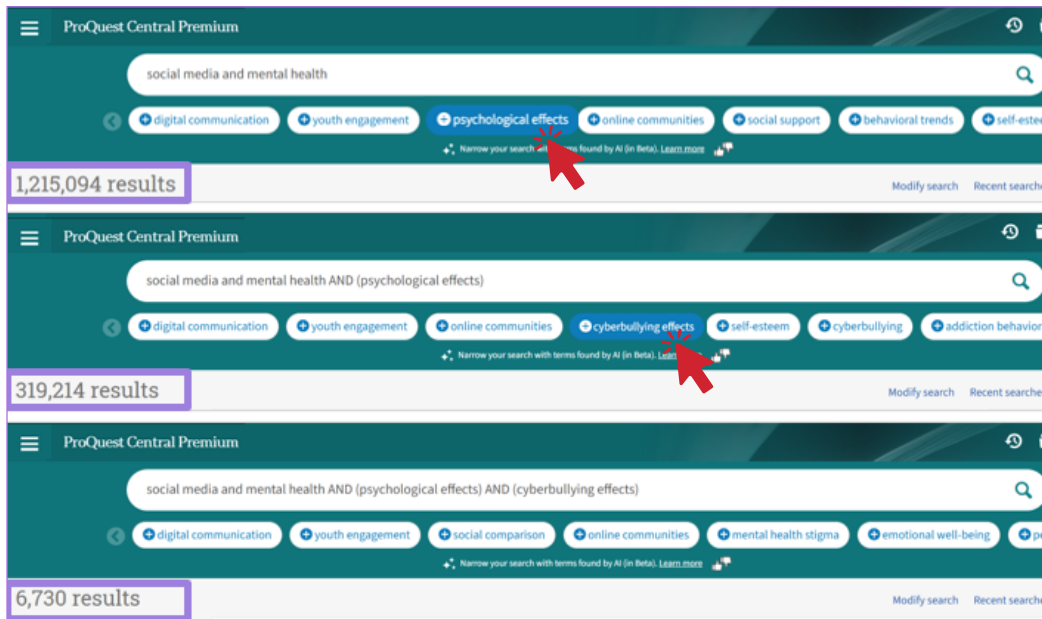
The screenshot displays the ProQuest Central Premium interface. The main article is titled "AI and XAI second opinion: the danger of false confirmation in human-AI collaboration" by Rikard Rosenbacke, Åsa Melhus, Martin McKee, and David Stuckler. The article is from the *Journal of Medical Ethics*. The interface includes a navigation bar with options like "Full text", "PDF", "Abstract/Details", "References", and "Cited on Web of Science". A "Research Assistant" sidebar is highlighted with a purple box, showing "Insights" for the article. The insights include a key takeaway: "False confirmation errors, where both physician and AI agree on an incorrect diagnosis, are pervasive in clinical decision-making and pose significant risks, but explainable AI (XAI) and cognitive strategies like nudging can help mitigate these errors by encouraging critical evaluation of AI outputs." It also lists additional topics discussed, such as "Ethical and epistemological challenges of AI as a second opinion". Below the insights are buttons for "Essential Details", "Findings or Conclusions", "Visualize Topics", "Important Concepts", and "Research Topics". A "More Like This" section suggests similar documents, including "Applications of Artificial Intelligence and Machine Learning in Emergency Medicine Triage - A Systematic Review" and "Validation of an artificial intelligence-based algorithm for predictive performance and risk stratification of sepsis using real-world data from hospitalised patients: a prospective observational ...".

Find out more at about.proquest.com/go/proquest-ai

AI initiatives address two main research paths

1. Starting with a search: more targeted results

Helps users craft a more structured Boolean search, adding relevant terms with a click



Students often struggle to create an effective search query that delivers targeted results.

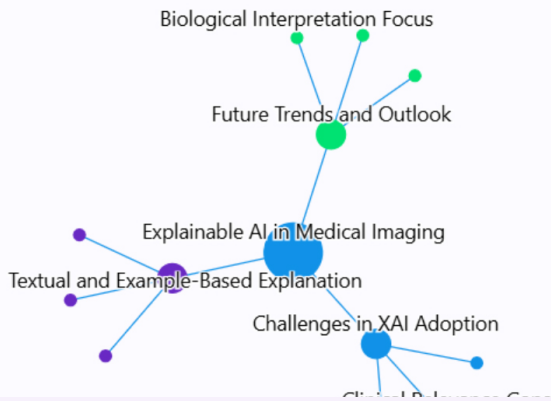
- Generates synonyms and related terms
- Easier to narrow results
- More targeted & relevant results set
- Positive feedback from testing with students & librarians

2. Starting on a document: insight, guidance, and next steps

Task-oriented document view provides key next steps based on user context & document type

<p>Here is the key takeaway.</p> <p>Explainable AI (XAI) and eXplainable Deep Learning (XDL) are essential for improving transparency, trust, and clinical adoption of deep learning models in medical imaging, but current methods face challenges such as limited interpretability beyond visualization, lack of normative validation, and the need for more biologically meaningful explanations tailored to healthcare professionals' needs.</p> <p>Additional topics discussed include:</p> <ul style="list-style-type: none">• Data privacy and security challenges in healthcare AI applications• Interoperability issues among diverse healthcare systems• Resistance to change and the importance of education and training for healthcare professionals <p>Key takeaways allow users to quickly determine relevance.</p>	<p>Here are the important concepts.</p> <ol style="list-style-type: none">1. Saliency Map: A visual explanation technique that highlights important regions in an image influencing the model's decision. The document discusses saliency maps as a common XAI method but notes their limitations in distinguishing subtle differences in medical images.2. Grad-CAM (Gradient-weighted Class Activation Mapping): Grad-CAM is a popular post hoc visual explanation method that produces heatmaps to localize important regions in images for CNN-based models. It is frequently referenced in the document as a key tool for interpreting deep learning models in medical imaging.3. SHAP (SHapley Additive explanations): SHAP is a model- <p>Important concepts are described in the context of the document.</p>	<p>Here are related research topics.</p> <ol style="list-style-type: none">1. Explainable ai (xai) in medical imaging: XAI enhances transparency and trust in AI models used for medical image analysis, crucial for clinical adoption and decision making. 🔍2. Interpretability techniques for deep learning models: Developing interpretable methods helps clinicians understand AI decisions, increasing reliability and acceptance in medical diagnostics. 🔍3. Challenges and limitations of xai in healthcare: Identifying and addressing the limitations of XAI ensures safer and more effective integration of AI in clinical workflows. 🔍 <p>Related topics inspire users to explore new research areas.</p>
<p>Here are the findings or conclusions.</p> <p>The document aims to explore and critically analyze explainable artificial intelligence (XAI), particularly explainable deep learning (XDL), within the medical imaging (MI) domain to enhance transparency, trust, and clinical adoption of AI-driven healthcare solutions. It seeks to identify existing XAI techniques, evaluate their effectiveness, discuss challenges, and outline future directions for integrating explainability into medical AI systems.</p> <p>Key findings highlight that while deep learning models achieve high accuracy in medical imaging tasks, their "black box" nature limits clinical trust and usability. Researchers have developed various XDL methods—visual, textual, and example-based explanations—to</p> <p>Brief summaries of the findings or conclusions including links to supporting text in the document.</p>	<p>Here are the essential details.</p> <p>Main Point</p> <p>The article reports on Elon Musk's AI company xAI introducing a memory feature for its chatbot Grok, enabling it to remember past conversation details and provide more personalized responses ①</p> <p>Sources</p> <p>Information is sourced from xAI announcements and comparisons to ChatGPT and Google's Gemini as reported by the Times of India Tech Desk ① ②</p> <p>Implications</p> <p>The memory functionality indicates xAI's strategy to position Grok as</p> <p>Essential details differ by content type like journal and news articles.</p>	<p>Here are the essential details.</p> <p>Main Point</p> <p>The document reviews and analyzes explainable deep learning (XDL) techniques aimed at increasing transparency and interpretability in medical imaging (MI) to improve trust and usability in healthcare decision-making ① ② ③</p> <p>Purpose/Hypothesis</p> <p>The purpose is to systematically review existing XDL methods in medical imaging, assess their effectiveness, challenges, and future prospects to facilitate clinical adoption and improve explainability of black-box AI models in healthcare ④ ② ⑤</p>

Explainable AI in Medical Imaging



Visualizations (Mind Map) provides users with a graphical representation of topics and subtopics discussed within a document.

XAI Techniques and Methods ^

This subtopic covers various XAI approaches, including visual, textual, and example-based explanations, and their application in interpreting deep learning models for medical images.

[More about XAI Techniques and Methods](#) ↑

• Visual Explanation Methods

Focuses on saliency maps, Grad CAM, CAM, and other visualization techniques used to highlight important image regions influencing model decisions.

[More about Visual Explanation Methods](#) ↑

• Textual and Example-Based Explanation

Discusses methods providing textual justifications and example-based clarifications to improve interpretability of AI decisions in medical imaging.

Brief descriptions of each subtopic are provided, along with what the document says about each one.

What is the role of AI (XAI) in clinical decision making?



Role of Explainable AI (XAI) in Clinical Decision Making

- The document states that XAI (explainable AI) is designed to clarify how AI systems reach their diagnoses, allowing physicians to understand and discuss the reasoning behind AI decisions (see "Framework to identify errors in human-AI/XAI decision-making").
- XAI can support more thorough decision-making by enabling doctors to compare their own clinical reasoning with the AI's logic, helping to spot differences or potential errors.
- However, the article notes that simply providing explanations

Chat with a document lets users ask questions and receive answers grounded in the document's content, with guided prompts that support deeper analysis and understanding.

"Quel est le rôle de l'intelligence artificielle explicable (XAI) dans la prise de décision clinique?"



Rôle de l'intelligence artificielle explicable (XAI) dans la prise de décision clinique

- Selon le document, l'IA explicable (XAI) vise à fournir des explications sur la façon dont l'IA arrive à ses diagnostics, permettant ainsi aux médecins de mieux comprendre et discuter les raisons derrière les décisions de l'IA (voir « Framework to identify errors in human-AI/XAI decision-making »).
- XAI peut enrichir le processus de prise de décision en favorisant

Chat with a document can be used with a wide variety of non-English languages to support users worldwide.

What User privacy and data controls are discussed in this paper?



User Privacy and Data Controls in Grok

- The document explains that Grok's memory feature is designed with transparency in mind. Users can see exactly what Grok remembers about them and have the option to delete specific memories [1](#) [2](#)
- There is a Data Controls page in the settings where users can toggle the memory feature off entirely, giving them control over whether Grok retains information from their conversations. [2](#) [3](#) [4](#)

Coming Soon! Chat with a document will include direct links to the relevant passages in the source text, giving users clear context and references — similar to the **Findings or Conclusions** and **Essential Details** features.

Chat with a document will remind users of its limits — declining unrelated questions or requests to write papers or assignments — regardless of the language used.