

# FROM AI TO CHATGPT: RADIOLOGISTS NIGHTMARE OR ASSISTANCE

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Dear Editor,

AI, which stands for Artificial Intelligence, is a broad term that encompasses various technologies and methodologies that aim to replicate or simulate human intelligence in machines. On the other hand, Chat GPT is a specific implementation of AI, based on the GPT (Generative Pre-trained Transformer). Chat GPT excels at understanding and generating natural language, making it suitable for conversational applications. Use of AI is on the surge in medical field and Pakistan, being the developing country, is lagging in its use and implementation in healthcare sectors.<sup>1</sup> In the context of radiology, there is a mixed response amongst radiologists that whether it will aid the reporting person or will take the position as it can perform image analysis, automated diagnosis, computer-aided detection (CAD), predictive modeling, and more. AI in radiology aims to improve accuracy, efficiency, and workflow in interpreting medical images, assisting radiologists in making diagnoses and treatment decisions.

ChatGPT, although an AI model, used in radiology to facilitate communication between radiologists, patients, and other healthcare professionals. Using ChatGPT in radiology reporting can provide several benefits like efficient communication, improved accessibility, enhanced report clarity, decision support, improved workflow efficiency, patient engagement, time savings, consistency and standardization. It can also be useful in radiology for research purposes.<sup>2</sup> It can also assist in medical writing, thus saving time and effort. It can write draft preauthorization letters to insurance providers as well as procedure care instructions. It can also be used for protocoling imaging studies, summarizing clinical information and trans-

lating information into different languages.

While using Chat GPT in radiology reporting can offer advantages, there are also potential hazards to consider like misinterpretation of queries, lack of clinical context, inaccurate or biased information, legal and liability concerns, overreliance on automation, privacy and data security and ethical considerations. It only generates data according to input given.<sup>3</sup> To mitigate these hazards, it is important to thoroughly validate and test AI models like ChatGPT before integrating them into radiology reporting workflows. Regular monitoring, ongoing refinement, and continuous feedback loops should be established to address and rectify any inaccuracies or limitations identified during use. Human oversight and review of the generated reports are also crucial to ensure the accuracy and reliability of the final radiology interpretations.

While AI in radiology focuses on image analysis and diagnostic support, Chat GPT is primarily employed to facilitate communication and provide information in a conversational manner. Both AI and Chat GPT can play complementary roles in radiology, with AI aiding in image interpretation and diagnosis, and Chat GPT assisting in communication and information dissemination.

If used constructively, Chat GPT's potential could outweigh its current limitations. Weighing the pros and cons, AI/Chat GPT should be used more as a secondary and supplemental tool rather than substitutional one.<sup>4</sup> It is important to note that it should not replace the expertise and clinical judgment of radiologists. Instead, it should be seen as a supportive tool to enhance communication, understanding, and efficiency in radiology reporting.

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