



The Digital Stethoscope: Harnessing AI in Veterinary Medicine Without Losing Our Healing Touch

Steinhaus J*

Chief Medical Officer, Internal medicine, Vetiva Center for Animal Wellness, Hong Kong

***Corresponding author:** Dr Joshua Steinhaus, Chief Medical Officer, Internal medicine, Vetiva Center for Animal Wellness, 19/F K11 ATELIER Victoria Dockside, 18 Salisbury Road, Tsim Sha Tsui, Hong Kong, Phone: 852 2592 1000; Email: Joshua@vetiva.org

Editorial

Volume 10 Issue 2

Received Date: November 05, 2025

Published Date: November 10, 2025

DOI: 10.23880/oajvsr-16000289

Abbreviations

AI: Artificial Intelligence; LLMs: Large Language Models.

Editorial

Artificial Intelligence (AI) is here, and our world of patient and client interaction is on the cusp of a significant transformation. AI, in particular, Large Language Models (LLMs), are already being used, and with them, there is great potential as well as many concerns. LLMs are capable of processing and generating human-like text; however, their implementation must be driven by the lessons learned from our human medicine counterparts. We must continue to have a keen awareness of LLMs' role as augmenters, not replacements of veterinary professionals.

Why are LLMs so compelling in the medical field? Imagine a tool that can instantaneously cross-reference a patient's symptoms against millions of previous cases, obscure journal articles, and pharmaceutical data. They can draft client communications, translate complex medical jargon into layman's terms, and streamline medical note-taking. It promises to help reduce diagnostic errors, suggest differential diagnoses that may be obscured, and ensure treatment plans are aligned with the most up-to-date evidence [1].

Where have LLMs stumbled in the past? The first pitfall is "automation bias" which is the tendency for humans to over-trust automated systems, even in the face of contradictory evidence. A recent study [2] revealed that non-specialists

were the most susceptible to automation bias, underscoring the importance of risk mitigation (e.g., specialized training) to ensure diagnostic accuracy and minimize patient harm. Another pitfall is LLMs are known to have hallucinations, inaccurate information that sounds plausible scientifically [3], but is entirely fabricated information. A hallucinated medication regimen or non-existent clinical data could lead to increased patient morbidity and mortality. LLMs are entirely dependent on the quality of inputs, leading to the adage of "garbage in, garbage out". In our human counterparts, the patients, in most cases, can articulate the clinical signs, history, and symptoms. In veterinary medicine, the inputs are less precise and are based on physical examination findings and patient history told by a third party (owner) – both of which are often subjective and incomplete.

Our patients cannot specify the degree of pain, tell us where it hurts, what they ate, or how long the symptoms have been occurring. The owner or caretaker might not remember a diet change or the last time the patient vomited. A physical examination might overlook a heart murmur or subtle swelling of a joint. LLMs with incomplete history and/or flawed physical examinations, no matter the care and sophistication of the model, can lead to inaccurate diagnoses. LLMs process data; they do not practice medicine.

All the above can lead to the erosion of the patient-client-doctor relationship, reducing clients' trust in our practice of medicine, removing empathetic interactions, and reducing our profession to a series of data points processed by an algorithm.

What is an ideal outcome? Inherently, we must strive to design these models as tools to augment the practice of veterinary medicine. LLMs should be a cognitive extension of the doctor, providing fine details (e.g., drug interactions), generating reports, and prompting doctors for alternative diagnoses and treatment options. The doctors should provide clinical intuition, empathy, the ability to perform interventions, and, most importantly, build trust with the clients [3].

Where do we go from here? We must be proactive and integrate a critical AI assessment in our education framework, allowing future doctors to both use and critique these tools. During development and deployment of these tools, there should be transparent validation and clear regulatory framework to ensure they are used in a safe, effective, and ethical manner.

The future is now; integration of LLMs into the practice of medicine is not a question of if ever, but when and how. Our adoption of LLMs presents a potential for the elevation of our standard of care and improved outcomes for our patients.

We must remain vigilant and demand that this technology be used appropriately and not allow technology to eclipse our professional judgment. Hopefully, we can mold AI into a digital stethoscope to be a powerful instrument used to hear the needs of our animal companions.

References

1. Rao A, Pang M, Kim J, Kamineni M, Lie W, et al. (2023) Assessing the Utility of ChatGPT Throughout the entire clinical workflow: Development and usability study. *J Med Internet Res* 25: e48659.
2. Kucking F, Hubner U, Przysucha M, Hannemann N, Kutza JO, et al. (2024) Automation bias in AI-decision support: Results from an Empirical Study. *Stud Health Technol Inform* 317:298-304.
3. Shen Y, Heacock L, Elias J, Hentel KD, Reig B, et al. (2023) ChatGPT and Other Large Language Models Are Double-edged Swords *Radiology*, pp: 230163.