

*"Come with me and you'll be
In a world of pure imagination"*

*(Roald Dahl, Pure Imagination,
stanza 1)*

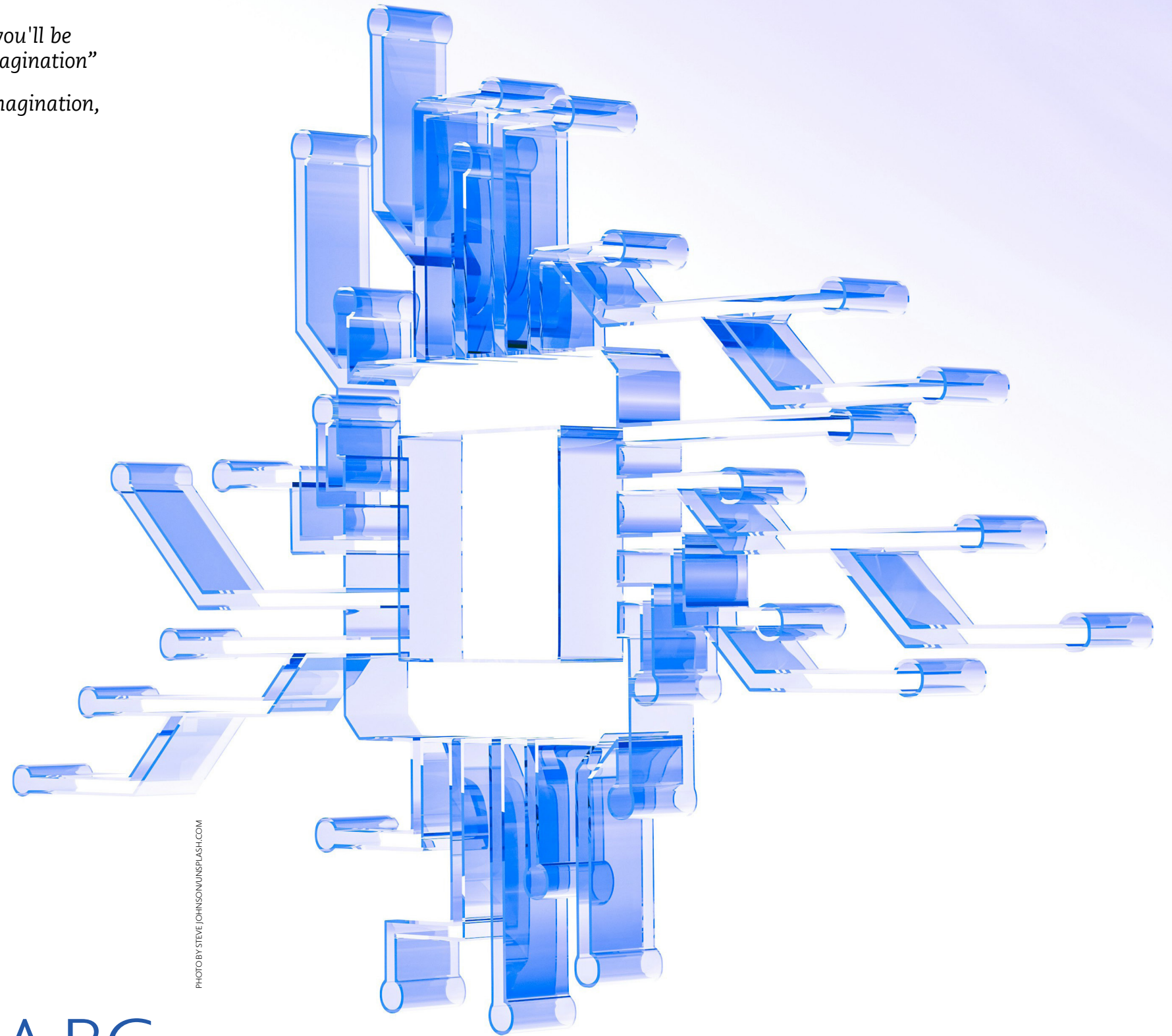
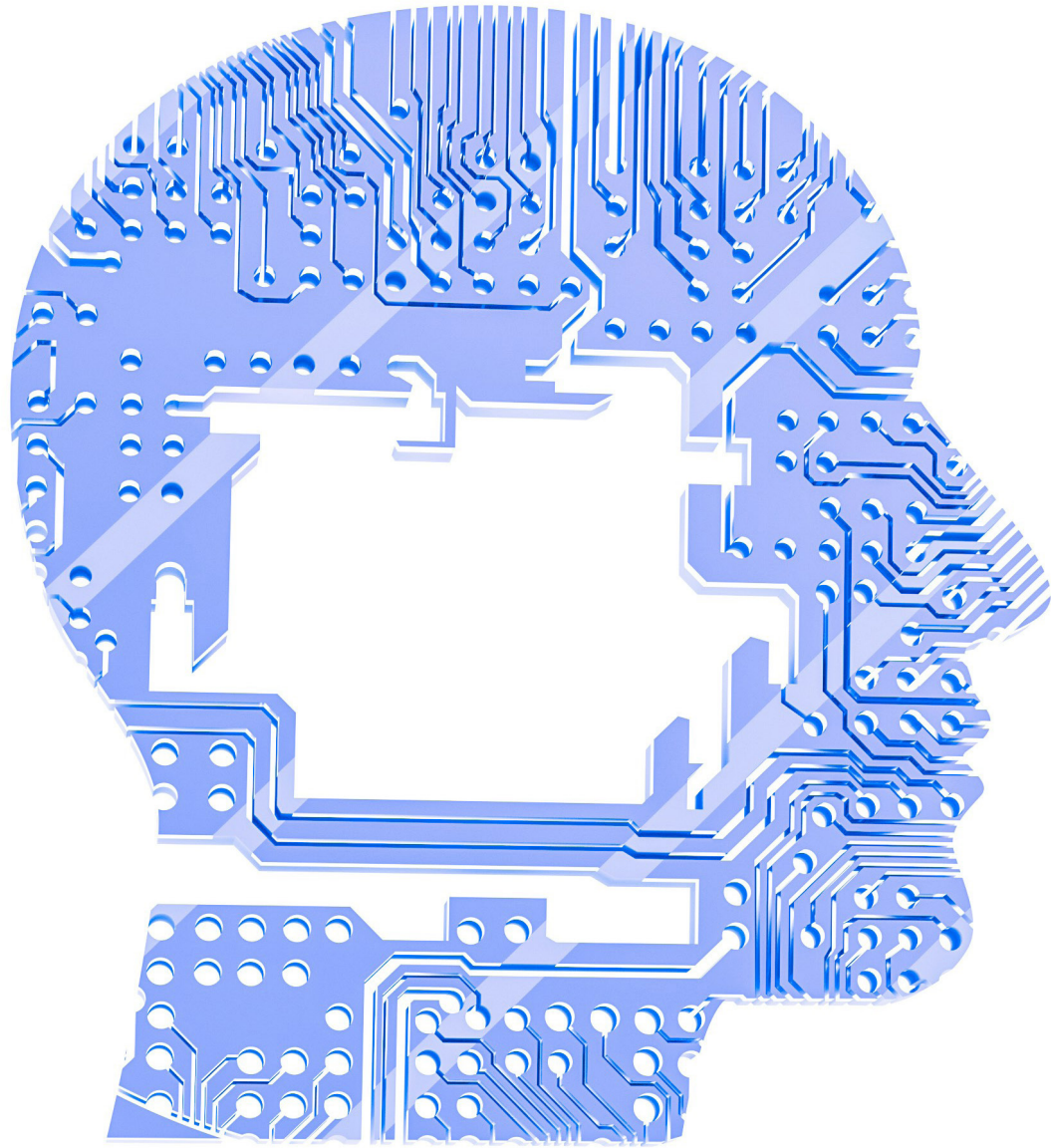


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EVERYTHING A BC VETERINARIAN NEEDS TO KNOW ABOUT **ARTIFICIAL INTELLIGENCE**

BY PETRA HARMS, DVM

The veterinary industry blinked, and suddenly, there's a new phenomenon at our doorstep that sounds like science fiction and elicits varying degrees of hesitation and excitement depending on whom you ask.

Artificial intelligence–AI.

It has exploded in popularity over the past few years, shaken industries worldwide, and left regulatory agencies scrambling to catch-up. How do you wrap your head around this new thing to decide where you stand? How do you decide what is real in the maelstrom of hype and skepticism? How do you create a foothold in understanding what AI can and can't do for veterinary medicine?

Let's take a tour of AI in veterinary medicine at the dawn of 2025. We'll get a taste of what it really is, where it's being used now and where future potential lies, what dangers lurk in the shadows, and how we can head them off. It's a wide landscape, but if you settle in, grab a coffee, and follow your guide, you'll have a lay of the land by the time we're done.

MACHINE LEARNING, ALGORITHMS AND AI, OH MY!
Before we go any further, you should know what exactly AI is. Modern AI describes a technology that can make humanlike decisions based on algorithms created through machine learning. Got that? Yep. Clear as mud, I'm sure.

Let's take a couple of steps back and drill down to the very basics. As humans, we've always been obsessed with predicting things. Will it rain tomorrow? Will the Johnsons' dog bite me this year? What will the markets do? Will I get promoted? When we try to make a prediction, we're asking this: Will doing one thing cause this very specific other thing to happen? Or, put even more broadly, what does it take for one specific set of circumstances to bring about another set of circumstances or outcome?

Until machine learning was developed, making predictions was the domain of trial and error, fortune tellers, and data scientists. Let's focus on the data scientists. A data scientist would analyze datasets, meaning the numbers associated with two linked situations (like weather patterns on two separate days or market conditions and stock values), and try to create a mathematical formula that linked those numbers. The more accurate the mathematical formula (or series of calculations) was at describing the relationship between the two sets of numbers, the better it would be at predicting an outcome. For example, if you had a very accurate formula that described the relationship between weather patterns two days apart, you could then punch in today's weather patterns (an input), apply the formula, and get a prediction of what tomorrow's weather pattern would be (an output).

Designing the formulas to describe the relationship between two sets of numbers is long, tedious, and combines calculations with a lot of high-level guess and check. You start with your best guess at an appropriate formula, plug the first set of numbers into the formula (the input), and see if the calculation using the formula spits out something close to the second set of numbers (the output). Then, tweak the formula and try again. Keep any changes to the formula that make the inputs and outputs match better and toss any changes that make the match worse. The final relationship formula is one that can't be improved by any more tweaks, and it's called an algorithm because data scientists are fancy like that.

The problem with data scientists is that they're human. They can only take in so much information, think at a certain speed, and must eat, sleep, and take weekends and holidays (interns, residents, and PhD students excepted). Machine learning changed all of that when data scientists outsourced the formula-making process to computers. The "learning" part of machine learning is basically a program that has been designed to start with a formula, apply it to a set of input numbers, independently check to see how well the output (or prediction) matches the related set of numbers, and then tweak the formula (again and again and again) so that it becomes increasingly more accurate at representing the relationship between those two sets of numbers. This ability to automatically modify the algorithm, until it is as accurate as possible, is at the core of machine learning.

Machine learning massively speeds up the guess and check process. Since computers care much less about how long a formula is, and since they can be fed vast amounts of different types of data, a machine learning algorithm (remember, it's just a formula) can become mind-bogglingly complex to account for increased variety in the data. Machine learning is also incredibly versatile, because anything that can be reduced to numbers (including images and even words in text) can then be used as datasets to build prediction algorithms.

What you've just read simplifies the idea of machine learning to its most basic building blocks. In reality, those building blocks have been stacked and combined by the hundreds or thousands in a variety of ways to process different types of datasets, make different types of predictions, and even identify previously unknown relationships in data. Neural networks, decision trees, and convolutional neural networks are all examples of different ways to stack those building blocks. No matter how complex though, at its very core machine learning boils down to this: It is a way of processing information that enables a computer program to discover the most accurate formula (algorithm) possible to describe the relationship between two sets of numbers.

Once machine learning has identified a reliable enough algorithm, you can combine that algorithm with hardware and software that make up an interface (ways of interacting with the surrounding world, like sensors or displays), as well as instructions on what to do with the output information once an output is created. Voila—modern artificial intelligence technology. You have just created a tool that takes in information as input data, uses an algorithm to create outputs, and makes decisions based on the outputs.

As machine learning tools and the programs that they are attached to become increasingly more sophisticated, the AI technology that you end up with can simulate human reasoning. So, the newly upgraded filter that identifies and dumps (output and decision) spam email (input) in your junk box? ChatGPT choosing the next word in a sentence (output) depending on what you asked it (input)? The AI radiology service that classifies x-rays (input) as representing lung cancer or not (output and decision). These are all variations on the theme of AI.

WHAT MAKES ARTIFICIAL INTELLIGENCE IMPORTANT
AI is making waves across industries because of its potential and realized abilities to independently perform tasks using human-like reasoning. Many tasks that previously needed a human touch can now be outsourced to machines. If that statement sounds a little bit fraught, well, that's because it is. AI technology is capable of increasing efficiency, thus lightening a workload so that human and financial resources can better be applied elsewhere. It can also facilitate discoveries that would have taken traditional scientific methods decades to achieve. At the same time, the use of AI opens a whole new Pandora's box of potential problems, which we've only begun to explore.

AI USE IN HUMAN MEDICINE
Human healthcare has applied, or is working to apply, AI technology at nearly all levels of the care hierarchy. In "Innovation and challenges of artificial intelligence technology in personalized healthcare," the authors describe AI use in personalized healthcare, including development of virtual assistant chatbots for round-the-clock patient education and support, personalized patient scheduling/communication platforms, wearable biometric monitoring devices paired with smartphone applications, genomics data analysis to optimize cancer treatments or minimize drug side effects, and creation of predictive models that can forecast Alzheimer's progression, predict cardiovascular risk ,or risk of surgical complications.¹ Beyond personalized medicine, AI technology in human medicine is being used in drug discovery by scanning vast reams of medical data and/or predictive protein folding patterns to identify promising compounds such as new antibiotics, cancer treatments, viruses, and chronic diseases.² It's helping physicians claw back precious hours of in-clinic time through the use of AI scribes to generate medical records and is being fine-tuned to summarize medical histories.^{3,4} In human healthcare education, AI technology is being explored as an educational aid to help ensure that students receive a personalized curriculum designed to shore up any weaknesses in their skill sets.⁵ AI has aided human public health delivery via spatial modeling, risk prediction, misinformation control, public health surveillance, disease forecasting, pandemic/epidemic modeling, and health diagnosis.⁶ AI technology is being used in diagnostic settings to increase the speed, efficiency, and/or accuracy of image-based diagnostics in radiographs, CT scans, and retinal image assessments, and has opened up an entirely new field of diagnostic imaging called radiomics.^{7,8} Which is very, very cool. Seriously. Google it.

AI USE IN THE VETERINARY MEDICINE SPACE
Compared to the use of AI in human medicine, the veterinary industry has arrived relatively late to the game. On one hand, this isn't surprising—we've often ridden human healthcare's coattails when it comes to new technology and advancements. On the other hand, this represents a potential missed opportunity. While the rate of innovation in human healthcare is moderated by a complex system of health information privacy laws and regulations governing the legal use of medical devices, veterinary medicine in Canada has thus far been left to its own means (more on that later). Despite a slower start, the market has seen an uptick in technological offerings over the past four to five years. The majority of ready-to-use services that we're seeing for veterinarians fall into three categories: medical record scribes and similar programs, diagnostic imaging services, and AI-powered veterinary pathology tools. Medical record scribes offer ambient note taking—recording devices in the exam room capture, filter, and record the patient medical history and exam based on the veterinarian's conversation with the owner. Some scribe services exist as standalone apps that integrate into an existing electronic medical record (EMR) system, and some come packaged within an entire EMR ecosystem. Many of these services add value by offering summaries of medical histories or AI generated discharge instructions, and many come with a free trial period for the AI "curious but not committed." On the diagnostic side, multiple smaller start-ups are competing for a slice of the pie against established players, like Antech and Idexx, to automate diagnoses based on radiographs or microscopic images. Research is also starting to trickle in on the use of AI tools in advanced imaging (ultrasound, CT scans, MRIs).⁹ It's only a matter of time before the technology is offered on the market in this sector. On the client-facing side, pet owner interface tools, such as wearable vital signs sensors for pets and animal-health-oriented chatbots (cat-gpt.com being one example) are starting to pop up. When well-designed, these tools may improve client engagement in their pet health monitoring and are worth considering as resources that you can provide to clients.

THE INFLUENCE OF CHATGPT
ChatGPT is a type of AI technology based on a large language model. The dataset that was used to train the model consisted of vast amounts of text from publicly available resources, like books, websites, online articles, and research papers. The goal was to create a program capable of understanding and creating humanlike text in a variety of contexts. ChatGPT's effectiveness and ease of use have made it and similar models very popular with the general public, often being used as question-answering tools, text generators, and information summarizers.

“COMPARED TO THE USE OF AI IN HUMAN MEDICINE, THE VETERINARY INDUSTRY HAS ARRIVED RELATIVELY LATE TO THE GAME.”

You said:

My dog has bloody diarrhea. What should I do?

ChatGPT said:

I'm sorry your dog is experiencing this issue. Bloody diarrhea can be caused by a variety of conditions, some of which require immediate attention. Here are some steps to take:

- Assess Your Dog's Condition: Check for other symptoms like vomiting, lethargy, loss of appetite, or signs of pain.
- Note the color and consistency of the diarrhea, as well as any unusual smells.
- Call Your Veterinarian: Contact your vet right away to describe the symptoms. Bloody diarrhea can indicate serious conditions such as infections, parasites, poisoning, or internal injuries.
- Avoid Home Remedies: Do not administer any over-the-counter medications or human medications without veterinary guidance, as they can make the condition worse.
- Provide Comfort: Keep your dog hydrated with fresh water.
- Temporarily withhold food for 12-24 hours (only if advised by your vet) to let the digestive system rest, then reintroduce a bland diet like boiled chicken and rice.
- Collect a Sample: If possible, collect a stool sample to bring to your vet for analysis.
- Emergency Situations: If your dog seems extremely unwell, is vomiting blood, or is showing signs of shock (pale gums, rapid breathing, weakness), go to an emergency veterinary clinic immediately.
- Prompt action is essential to ensure your dog gets the appropriate care.

You said:

What might be causing his symptoms?

ChatGPT said:

- Bloody diarrhea in dogs can have various causes, ranging from mild to life-threatening. Common causes include:
- Dietary Issues:
 - Dietary Indiscretion: Eating something spoiled, toxic, or unusual (e.g., garbage, human food).
 - Food Intolerance or Allergy: Reaction to a new diet or specific ingredients.
 - Gastrointestinal Disorders:
 - Hemorrhagic Gastroenteritis (HGE): Sudden onset of severe diarrhea with blood, often seen in small breed dogs.
 - Inflammatory Bowel Disease (IBD): Chronic inflammation of the intestines.
 - Gastrointestinal Ulcers: Often caused by medications, stress, or other underlying conditions.
 - Infections:
 - Bacterial Infections: Salmonella, E. coli, or Clostridium.
 - Viral Infections: Parvovirus (especially in unvaccinated puppies), distemper.
 - Parasitic Infections: Worms (hookworms, whipworms) or protozoa (Giardia, coccidia).
 - Toxins:
 - Poisoning: Ingesting toxic substances like chocolate, antifreeze, certain plants, or chemicals.
 - Medications: Side effects of NSA.I.Ds, antibiotics, or steroids.
 - Stress:
 - Stress Colitis: Triggered by anxiety, changes in routine, or travel.
 - Physical Trauma:
 - Foreign Body Ingestion: Swallowed objects causing irritation or blockage.
 - Intestinal Injury: Damage to the intestines from sharp objects or trauma.
 - Systemic Illnesses:
 - Liver or Kidney Disease: Impacting digestion and causing gastrointestinal symptoms.

- Pancreatitis: Inflammation of the pancreas.
 - Clotting Disorders: Issues with blood clotting can result in bleeding.
8. Cancer or Tumors:
- Gastrointestinal Tumors: Rare, but can cause bleeding in the digestive tract.
- If your dog has additional symptoms like lethargy, vomiting, or pale gums, it could indicate a more severe problem requiring urgent veterinary care. A veterinarian will perform diagnostic tests such as blood work, stool analysis, X-rays, or ultrasounds to determine the cause.
- You said:**
- The vet told me to monitor his signs overnight, and my dog died. What did the vet do wrong?*

ChatGPT said:

I'm very sorry to hear about your dog's passing. Losing a pet is incredibly painful, and it's natural to want to understand what happened. To assess whether the veterinarian made an error, it's important to consider the situation holistically.

- What Might Have Happened
 - Severity of the Condition: Some conditions causing bloody diarrhea, such as hemorrhagic gastroenteritis (HGE), severe infections, or internal bleeding, can escalate rapidly and unpredictably, even with veterinary advice. Conditions like parvovirus, pancreatitis, or poisoning can sometimes worsen faster than expected.
 - Limitations of Diagnosis: If the vet didn't conduct diagnostic tests (e.g., blood work, imaging, or stool analysis) and relied solely on symptom observation, it might have limited their ability to assess the severity of the issue.
 - Unpredictable Progression: In some cases, the progression of illness is so sudden that even immediate treatment might not change the outcome.
 - Communication: If the vet advised monitoring without sufficiently explaining what signs required immediate return to the clinic (e.g., worsening lethargy, vomiting, pale gums, or difficulty breathing), this could have led to confusion.

- Did the Vet Do Something Wrong?
 - Veterinary care involves assessing symptoms, ruling out causes, and deciding the best course of action based on the information available. However:
 - Misjudgment of Severity: If your dog's symptoms warranted emergency care, and this wasn't recommended, it might indicate a misjudgment.
 - Lack of Testing: Not performing or suggesting further tests (if warranted) could be seen as insufficient care.
 - Inadequate Guidance: Failing to provide clear instructions about what signs required urgent re-evaluation could be an oversight.

- Steps You Can Take
 - Request Records: Ask the vet for your dog's medical records, including the history of the visit, their notes, and any diagnostic results.
 - Seek a Second Opinion: Consult another veterinarian to review the records and provide insight into whether anything could have been done differently.
 - File a Complaint (if necessary): If you believe there was negligence, you can file a formal complaint with the local veterinary regulatory body.
 - Consider Grief Counseling: Losing a pet is deeply emotional, and support can help you process the loss.

Sometimes, despite the best intentions and care, outcomes are tragic and unforeseen. It may bring you some peace to learn more about what happened and whether it was preventable.



We can't underestimate the influence that ChatGPT can have on our client interactions. The ability to have a conversation with a source of apparently bottomless knowledge makes it easier for pet owners to become much better-informed consumers. Better-informed clients can be a boon in that they may come to your hospital already primed with a differentials list and a desire to perform an appropriate workup. ChatGPT may motivate the hesitant owner of a sick pet to schedule a veterinary appointment sooner than they might otherwise. All of this clearly benefits the pets but may also come with additional challenges to the veterinarian. We need to be prepared for clients who can rapidly become thoroughly informed on pretty much any disease process. Before ChatGPT, five minutes on the Internet wasn't enough time to become a medical authority on anything. Now, ChatGPT can easily instruct your client on the gold standard for stabilizing a gastric dilation and volvulus in five minutes or less. By the time you return to the exam room, after checking the abdominal radiographs, you may find yourself answering more detailed and nuanced questions about your patient's care than you are used to. In making information on veterinary care more easily accessible, ChatGPT can increase your clients' empowerment in making medical decisions while also raising the bar for their expectations of you as the veterinarian.

THE DARK SIDE OF AI

If you're reading this and thinking that maybe we've been given just enough leash to hang ourselves with—you're not wrong. AI capabilities are evolving at an incredibly and increasingly rapid pace. Staffing shortages and the time suck of EMRs have made the veterinary workforce desperate for labour-saving solutions. AI technology has stepped in to meet that demand. In the rush of supply meeting demand, the issues of regulation and governance of this technology are being left behind within the veterinary industry.

RESPONSIBLE USE GUIDELINES AND REGULATORY BODY GOVERNANCE

Of the veterinary regulatory bodies in North America, the American Veterinary Medical Association (AVMA) has taken a leading role in addressing the challenges and opportunities that come with AI technology. On December 30, 2024, AVMA board chairman Dr. Robert Knapp reported that the AVMA has formed a Task Force on Emerging Technologies and Innovation. Its goal is to identify emerging technologies for veterinary services, develop responsible policies for their use, and consider the establishment of a standing committee for ongoing review and oversight.¹⁰ This is a necessary and overdue step as AI-based scribes and diagnostic aids are already in use and rapidly proliferating throughout the industry. Here in Canada, the silence of the veterinary regulators is noticeable. I could find no mention of AI technology on the CVBC's (our provincial regulator) website and a phone call to the deputy registrar requesting information on the topic had not been returned by the time of this submission. The CVMA lists Technology and Veterinary Medicine as a priority area in its Policy and Outreach section; however, only telemedicine is specifically referenced. The CVMA does have a position statement entitled Artificial Intelligence in Veterinary Medicine dated October 12, 2023 which states, amongst other things, that scientific rigour should be observed in the development of AI technology, and should be delivered to veterinarians in accordance with their provincial regulators' policies.

This complete lack of governance oversight and recommendations for responsible use of AI technology is a problem. As veterinarians, we're trained to have a good understanding of the risks and benefits of the treatments and diagnostics that we use. We've been steeped in the ideas of scientific rigor, learning to critically evaluate claims about the tools at our disposal before trusting our patients' lives, client satisfaction, and our professional reputations to the use of those tools. We must not abandon those principles now. When it comes to using AI technology, our licenses are on the line when our patients or clients are harmed by something that we do or fail to do. Being ignorant of the risks of the AI technology that we use will not stand up to scrutiny by licensing bodies or privacy regulators. It is vital that we better understand these risks and how to manage them.

PRACTICAL RISKS OF AI TOOLS

Because of the way that machine learning works, the practical risks that come with AI tools, such as bias and hallucinations, are baked into them.

DATA BIAS

Machine learning creates algorithms to define relationships within and between sets of data. If the data itself is biased (let's say that the data was gathered on a population of animals that isn't representative of the type of animal that you're treating), then the algorithm created will be biased as well. An AI tool based on that algorithm will then make biased decisions because of the bias in the original source data. The problem of data bias is nothing new—think about the safety and efficacy data on ivermectin. If gathered on a population of Beagles, the data does not represent the safety profile of the drug in Collies prone to multidrug resistance mutation 1. The importance of representative source data hasn't changed with the advent of machine learning and AI technology. What has changed is the risk that bad data will be used in decision making. When it comes to safety and efficacy testing of drugs, for example, there are long-standing, rigorous, accepted industry standards in place that drug development companies must follow in order to get drug approval. Those standards protect us as consumers, allow us to trust that the data used in the studies is appropriate for our uses, and that we can confidently make decisions based on the results of those studies.

PHOTO BY NAHRIZUL KADRI/UNSPASH.COM

In machine learning and AI technology in veterinary medicine, there are no standards for quality control of the source data, the machine learning methodology, or the programming of the AI tool. If we trust the assessment and recommendation of an AI tool, we are trusting that the developers

- a) have access to high-quality, representative data to train their machine learning model on the desired topic.
- b) have a comprehensive understanding of where the potential risk of bias in the source data lie and have appropriately addressed those risks.
- c) have the resources to perform their responsible due diligence.
- d) have evaluated their finished product to ensure that the bias has been prevented.

That's a lot of trust, and until you ask the right questions of the technology developer, you won't know if it's been well placed.

HALLUCINATIONS

An oft-mentioned risk of AI technology, hallucinations are predictions, conclusions, data generation, or recommendations created by AI tools that are inaccurate or sometimes entirely made up. Unfortunately, they're often also very convincing, to the point that they can be hard to distinguish from reality. Until the industry finds a way to prevent hallucinations, you need to be aware of the very real risk AI tools carry to generate false or misleading content.

PRIVACY RISKS

The use of AI tools puts us into the position of collecting data from clients and generating data in the form of EMRs or insurance claims. This exposes us to a new type of risk. Our patient and client data may be collected by the AI programs for further training of machine learning models. One of our duties as veterinarians is to ensure that our client data is protected from release without their consent. This means that we need to find out how the data that we collect and generate through our AI programs is being used; data must be securely stored, and clients must be able to appropriately provide informed consent to the use of their data when engaging with AI tools. Take the use of ChatGPT, for example. It's excellent at taking complex written work and reducing it into simple, easy-to-use summaries, which makes it a great tool to create summaries of medical diseases for clients. It's also tempting to upload your patient's medical history in order

to generate a summary for your own use. This is a bad idea, as ChatGPT does not provide any guarantee that your uploaded client data will not be used to further train the model. As the guardians of your clients' confidential information, you are liable if that information is released outside of clinic use. Of course, it is not quite that simple. There are many unknowns with patients and client data privacy obligations, and rather than guess what the near future may look like (it may well be dependent on CVMA advice or CVBC regulation), my best advice is for those with concerns to seek the advice of a lawyer familiar with privacy law, or err on the side of caution and should consider all of the information in the medical record as a client's private information, which cannot be released to third parties without explicit consent of the client.

In the absence of established performance and quality control standards, we as consumers have to bear the responsibility of ensuring that the AI tools that we are using pass muster.

LARGER RISKS OF AI TECHNOLOGY IN THE VETERINARY INDUSTRY

Implementing AI technology will change how veterinary care operates. We hope that change will be for the better, with improved efficiency, effectiveness, and access to care. At the same time, we need to make sure that we aren't so focused on the day-to-day applications of the technology that we lose track of the macro changes that it may make in the industry.

AI technology is now as effective or more effective than physicians at diagnosing disease in controlled conditions.¹¹ AI-assisted diagnoses and treatment recommendations are just around the corner, if not already in place by the time of this publishing. The usefulness of these features goes without saying, but we need to be careful about how we approach their implementation.

PHYSICIAN DIAGNOSTIC RESILIENCE

One of our strengths as veterinary professionals is our diagnostic thinking ability. The steps we take to gather data, build a differentials list, and move through a diagnostics process in order to reach a conclusion are a skillset that takes time to learn and practise to perfection. If the diagnostic process is taken over for us, we expose ourselves to the risk that our critical thinking skills may atrophy or, in the case of future veterinary graduates, never get honed at all. The obvious flaw here is that even if the technology can do the thinking for us, we need to be able to take over if the technology fails. Much like using self-driving cars, if the program makes a mistake or suddenly goes completely offline, we need to be able to confidently steer to our destination. Many of us have felt the pain of a power outage causing havoc with our EMR and billing systems. A service interruption, natural disaster, or conflict would leave us and our patients much more vulnerable if we outsource our diagnostic thinking practice to AI programs.

SHIFTING GOALPOSTS

A second risk we should be aware of is a paradoxical increase in workload that may come with AI implementation. Assuming AI technology helps us become more efficient with our EMRs, it may be tempting for veterinary organizations to capitalize on this regained time by fitting more appointments into a day's work. While it is admirable to want to provide more care for our patients more quickly, we do need to keep in mind that the goal of gaining time back from paperwork is to lessen the burnout experienced by veterinarians. If we are not careful to safeguard the benefits that come with having a more efficient record-keeping process, we may find that the pressure to perform more and more will eat away at those benefits.

WHO IS SERVING WHO?

Finally, we need to always advocate for the user experience of the veterinarian when it comes to new AI tools. The adjustment to EMRs two decades ago

delivered a painful lesson in what can happen when new efficiency-improving technology gets implemented without a clear idea of who the technology is supposed to serve. EMR programs were touted as a perfect solution to simultaneously track inventory, monitor production, bill and schedule clients, and maintain medical records. Many ultimately failed to improve veterinary efficiency when it came to record-keeping at all. As AI is introduced as a new technology to fix flaws of the old technology, we need to firmly maintain the focus on the veterinarian this time around. The tool must be successful at making the veterinarian's life easier, by decreasing the number of steps that the veterinarian and their team take to finish a task. Poorly designed or integrated tools may just shuffle the labour around instead of decreasing it, requiring multi-step set-up and sign-in options, copying and pasting of files, or rereading and correction of errors in automated notes. If that is the case, the purpose of the tool is defeated. We need to make sure we're not just using AI technology for AI technology's sake.

WHERE WILL AI TECHNOLOGY TAKE US FROM HERE?

As a profession, we are lucky that AI technology can't replace us because our jobs are so much more than data entry, answering medical questions, and scheduling. A computer program can't calm a panicked owner dealing with their pet's medical crisis. It can't tease out a medical history from an owner with early onset dementia while ensuring that they have a family member alongside to support the care of their pet. AI can't hold the hand of a grieving pet parent as they decide that the time has come to say goodbye. It can't soothe a frightened pup while giving vaccines, decide how to manage a stressed cat that needs blood collected, or examine a lovebird for egg binding. It can't help a bewildered and frightened client navigate whether they can financially and logistically manage their pet's chronic disease diagnosis, treatment, and monitoring long term. It can't make a frightened dog just a little bit happier about walking into a clinic with the judicious application of liver treats and butt scratches. It will be a very, very long time before AI can successfully perform surgery on the variety of patients that we face. The core of our profession comes from our teams' abilities to create a human connection with animals and their owners and to help them manage their unique medical circumstances. That core has been stressed lately, as lack of staffing and increase in paperwork have taken us away from the things that make this career meaningful. For practising veterinarians, AI technology promises to help bring us closer to why we chose this gig in the first place—more time spent face to face with the furry creatures and the ones who love them. Our job is to safely shepherd the change to AI integration and to avoid problems early in the process, so we don't get burned before our industry learns how to manage the risks of these tools. We need to educate ourselves about our responsibilities to our teams, our patients, and our clients when it comes to our use of AI technology and then do our due diligence to meet these responsibilities. We need to critically evaluate the AI technology that comes to market, so we know when it can be safely and effectively used. We need to advocate for responsible use guidelines from our governing bodies, and we need to be proactive within our own organizations to create frameworks for responsible AI use. We need to set firm expectations with our tool providers and within our industry that, this time, the shiny new technology will work to make our lives easier instead of the other way around. AI technology will raise our industry to new level, and we need to keep pace.

To save space, the references for this article are made available on the Chapter's website at www.canadianveterinarians.net/sbcv/west-coast-veterinarian-magazine. ^{WCV}