

Can AI Tools Revolutionize Pet Healthcare?

From smart collars that monitor vital signs to robot nannies that play fetch, artificial intelligence is helping move pet care to the next level. But are these high-tech solutions really helpful or harmful?

STORY AT-A-GLANCE

- The global pet industry is expanding rapidly, projected to reach \$500 billion by 2030, with AI technology emerging as a particularly profitable sector through smart devices for pets
- AI-powered smart collars like PetPace monitor pets' vital signs with 90% accuracy, tracking metrics like stress levels and sleep quality to detect potential health issues early
- Purina's Petivity Smart Litterbox uses AI to monitor cats' bathroom habits, weight and elimination patterns, helping detect early signs of conditions like kidney disease and diabetes
- PetNow technology aims to replace traditional pet identification methods by using AI-powered biometric scans of animals' noses, claiming 99.9% accuracy in pet identification and verification
- While AI pet care tools offer convenience, experts warn they might disrupt the human-animal bond, with some arguing that pets need direct human interaction rather than robotic companions

The global pet industry is a booming sector, with estimates saying that it could be worth nearly \$500 billion in 2030.¹ Indeed, many pet parents today are willing to break the bank if it means providing their furry family members with the best health care. And when it comes to this sector, one of the most lucrative areas is artificial intelligence (AI).

There are now a number of pet products that use AI technology, from smart collars that help track your pet's level of health to robots that are designed to entertain, train and even feed your pet when you're not at home.

But are these modern tools truly the future of pet healthcare? Or are they creating a dependency that could get in the way of the bond between you and your companion animals?

There Are AI 'Smart Collars' That Help Detect Disease

Another AI pet device that is becoming well-known today is the smart collar; PetPace is one example. This GPS-enabled collar works by measuring your pet's biometrics, such as calories burned, stress levels, respiration, pulse and sleep duration and quality.

The device, which is said to have a 90% accuracy rate, uses machine learning to personalize the collar to the pet. If there are anomalies with the metrics being measured, the smart collar will alert the pet parent to act and have their pet checked.²

However, Asaf Dagan, chief scientist of PetPace, says that the device isn't designed to replace the role of a veterinarian, nor does it share the information with third-party vendors. Rather, their goal is to "catch signs of illness early, thereby preventing costly emergency room visits and unnecessary in-person appointments."³

There's an AI Tool That Helps Monitor Your Cat's Litterbox Habits

In 2022, Nestle Purina Petcare introduced the Petivity Smart Litterbox,⁴ an AI-enabled system that monitors your cat's litterbox behavior, along with waste type, frequency, weight and elimination cycle, and then sends them to you in order to help with cat care. Petivity, priced at \$199.99, detects changes in your cat's routine that may signal early signs of kidney disease, diabetes, urinary tract infections (UTIs), and more. According to an article in AI Business:

*"Pet owners who want to constantly monitor their cat's health would benefit from the AI system. If an owner is concerned about an underlying health condition, they could keep regular tabs on a cat's weight gain or loss with the system's weight management program. Cat owners would be connected to their animal's behavior with a simple check on their smartphone."*⁵

The device is versatile enough that it can be outfitted to standard litterbox sizes and litter. Pet parents get alerts via email and through the system's downloadable app, allowing them to check their pet's personal insights reports along with tips to help maintain their well-being.

Can AI Replace Microchipping in Pets?

The possibilities of AI are endless — in fact, new AI technologies are now being developed for pet tracking. One example is Petnow. Produced by Joonho Lim, this AI tech uses a biometric scan of your dog's or cat's nose to keep them safe. Its goal — replace existing pet ID methods, like tags, microchips and collars.⁶

"Currently free of charge for its users, Petnow's available in 16 countries, most recently launching in Australia and New Zealand. The company says the app has a 99.9% accuracy rate for pet identification and verification."

While Petnow seems like a promising way to utilize AI, there's still very few insights regarding its efficiency. More information also needs to be disclosed regarding its privacy protection measures.

Meet ORo, the Robo-Nanny Made for Pets

Another recent innovation in AI technology is ORo — described in its website as your dog's "pawfect companion,"⁷ ORo is a smart robot that is designed to be your pet's nanny – it plays fetch, feeds them on schedule, and supervises your pup — all while allowing you to monitor it away from home. ORo comes with an app that allows you to provide personalized care for your dog's well-being. According to an article from The Washington Post:

"What ORo does is it captures all the data, and it takes care of their feeding, their physical, mental and emotional engagement, and it's all encapsulated in one single unit," said Divye Bhutani, the founder and chief executive officer of Ogmen Robotics, ORo's parent company.

ORo can navigate a home with ease (though it can't currently climb stairs), while tending to a dog's daily needs. If ORo notices that a dog seems sad or anxious based on its body language, for example, the robot will play soothing music, initiate games or toss treats. Owners can also remotely connect with their pets via video chat. The data collected by the robot is contained within the device itself, Bhutani said, and is only shareable with user consent.”⁸

But some experts have expressed their apprehension about these devices, saying that these technological advancements could break the precious bond between humans and their companion animals. Gregory Berns, a neuroscientist and psychology professor at Emory University who studied dogs' brains, said:

“If a person feels a need for a robot to take care of their pet, then perhaps that person shouldn't have a pet. Dogs' evolutionary history is so intertwined with humans. It really does a disservice to them to put them with a robot.”

When It Comes to AI Technology for Pets, the Jury Is Still Out

Many other AI-driven projects are in the works, such as tools that can analyze your cat's meows and dog's barks, scanners for canine poop and AI monitoring systems. Indeed, many of these tools can lend a helping hand when it comes to taking care of your pet and improving their lives.

Even so, some are still on the fence about these modern developments. Philip Tedeschi, the co-director of the Institute for Animal Sentience and Protection, and a professor at the University of Denver Graduate School of Social Work — is wary of advanced pet technologies, namely translators and robotic companions.

“We might capture data that could serve a very functional or useful endeavor, but I think the downside is that it may actually make us less likely to meet each other's social and emotional needs.

I can guarantee that your dog would rather play with you than a robot ... From my standpoint, technology takes some of the magic out of these relationships,” Tedeschi says.

Hence, balance is needed to ensure that even with these AI tools, you are still able to personally care for and develop a close bond with your pet.

Sources and References

¹ [Bloomberg, March 24, 2023](#)

^{2,3,8} [Washington Post, June 7, 2024](#)

^{4,5} [AI Business, October 19, 2022](#)

⁶ [CNet, October 11, 2024](#)

⁷ [ORo website](#)