



Revolutionizing Veterinary Care: Technology, A Cutting-Edge Game Changer in Animal Health

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Advancements in technology have had a significant impact on various industries, and the veterinary industry is no exception. With the integration of artificial intelligence and equipment such as X-ray machines, ultrasound machines, CT scanners, MRI machines, and endoscopes, veterinarians and animal health practitioners can now provide more precise and effective care for animals than ever before.

In this article, Patrice Wafula, a veterinary technologist, animal health consultant and advocate of one health concept, will share insights on the ways in which cutting-edge technology is revolutionizing veterinary care. From the use of digital radiography to portable ultrasound machines and advanced CT scanners, we'll take a closer look at how these tools are transforming the diagnosis and treatment of diseases in animals.

X-ray machines, for instance, use electromagnetic radiation to create images of internal structures of the body. They are commonly used to diagnose bone fractures, dental problems, and lung disease. With digital radiography, veterinarians can now provide high-quality images with less radiation exposure, which reduces the health risks that come with radiation exposure. This also allows veterinarians to quickly share images with other specialists for further consultation (MedlinePlus, U.S. National Library of Medicine, 2021).

- Ultrasound machines, on the other hand, use sound waves to create non-invasive and painless images of internal organs and tissues. They are commonly used to diagnose pregnancy, thyroid problems, and heart disease. With the availability of portable ultrasound machines, veterinarians can now diagnose animals even in remote locations accurately.
- Another significant technological advancement is the CT scanner, which uses X-rays and computer processing to create detailed images of the body. It is particularly useful for

detecting and monitoring diseases and injuries that affect the bones, internal organs, and soft tissues. The detailed images can be viewed from multiple angles, making them a valuable tool for doctors and healthcare professionals.

- Magnetic Resonance Imaging (MRI) machines are also medical devices that use a strong magnetic field and radio waves to generate detailed images of internal body structures. They are commonly used to diagnose and monitor a wide range of medical conditions, including tumors, injuries, and neurological disorders. MRI machines are non-invasive and do not involve any radiation exposure, making them a safe and preferred imaging option for many patients. (National Institute of Biomedical Imaging and Bioengineering, 2021).
- d. Blood analyzers are medical devices that measure different components of blood to diagnose and monitor medical conditions such as anemia, infection and cancer. They provide important information about a patient's health status, and they're safe, non-invasive, and play an essential role in modern healthcare (Beckman Coulter, 2021).

Moreover, technology has empowered pet owners to take a more proactive role in their pets' health and well-being. Online resources such as veterinary websites and apps provide pet owners with valuable information about their pets' health, nutrition, and behavior. These platforms can also be used for remote consultations, follow-up care, and referrals, enhancing collaboration among veterinary professionals, specialists, and researchers in the industry who share knowledge and expertise, leading to better treatment options and more effective care for animals.

Despite the benefits, the use of technology in veterinary care comes with some challenges. Some machines like MRI and CT scanners can be expensive, making them unavailable in some facilities, especially in rural areas. Additionally, some animals may not tolerate the use of certain machines or procedures like anesthesia,

which may be necessary for some diagnostic tests. Also, the use of technology in veterinary care requires specialized skills and training, which may not be readily available in some regions.

Conclusion

In conclusion, technology is changing the game in animal health, and the veterinary industry is at the forefront of this transformation. Mr. Patrice Wafula encourages veterinary professionals to embrace technology and maintain a balance between technology and human touch for better animal care. In our yearly celebration of 'World Veterinary Day', let us always recognize and appreciate the significant contribution of technology in transforming veterinary care.