

Technology advances and the impact on veterinary practices

Abstract

The word technology means different things to different people. Many of us think of smartphones or sophisticated computers as cutting-edge technology and perhaps don't imagine much in the way of technological advancement is occurring in everyday clinical practice. The truth is a lot of advancements in a variety of technologies are taking place in veterinary practice, and it is some of these this article will explore.

KEYWORDS: Veterinary technology, e-learning, practice marketing, digital imaging, CPD

TECHNOLOGY is, for me, anything that helps us do our jobs better, whether it enables us to perform tasks faster and more effectively, or enables us to achieve a better outcome for our patients and clients. In essence, technological advances should enhance both our personal and working lives. There are three areas in which we see advances in technology in practice. The first is clinical technology: the classic "vetty" gadgets, gizmos and systems that make the process of diagnosing, treating and managing our patients easier and more effective. Secondly, there are advances in practice management and client communication technologies, an area that I believe has seen the biggest changes and that offers the biggest opportunities to impact on our clinics' bottom lines. The third area is the use of technology in education and CPD, which will ensure personal and professional growth, and is an area where technology is having a big impact.

Clinical technology

Although this article focuses on first opinion practice, it is worth noting that, as general practitioners, we have ready access to the latest clinical technology and cutting-edge diagnostics and treatments through referral to our specialist colleagues. The veterinary team is able to do pretty much anything that is clinically possible, due largely to huge advances in knowledge, expertise and technology at our disposal within specialist fields.

Imaging is one of the areas in which technology is at its most obvious. For many of us, the days of spending long periods stuck in a dark, hot and generally uncomfortable radiography suite taking multiple radiographs and getting frustrated at

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Christopher Shivelton Queen BSc, BVSc, MRCVS, takes a look at how technology developments impact life in practice and beyond



Left: an example of a portable ultrasound scanner – no bigger than a laptop. Centre: the v-gel, a new airway system for ventilating anaesthetised patients. Below: email lists and newsletters offer a simple and effective way of communicating with your clients.

how long it can take just to get a series of simple images are over. It was a revelation when I moved to my second job and discovered the joys of digital radiography. No more fumbling in the dark with open cassettes and film or handling noxious chemicals, and the images were available immediately. The system I first encountered was CR-tech, or computed radiography technology, which involved the exposure of a plate and then the processing of these films by way of a digital system. Further advances include the emergence of DDR-tech (direct digital radiography), in which the plate is exposed and an image quickly appears on screen without the need to manually place the plate in a processing unit. This is possible due to a scintillated plate, or direct digital panel, which replaces the plethora of film cassettes that we're used to using. Never has the phrase "take a quick x-ray" been so accurate.

Parallel to hardware advances are developments in software, meaning that taking, processing and working with radiographic images is more user-friendly and clinically helpful. Bespoke software packages will guide the vet through the correct measurements required for planning a tibial plateau levelling procedure, for example. The reduction in the size and amount of hardware, coupled with the options of cloud storage, where digital files are stored on a remote server away from the clinic (think Facebook, whereby your profile is actually hosted on a server in the US, or elsewhere, and not on your desktop) has meant that even the smallest clinics can boast an impressively powerful and versatile radiography capability, with none of the hassle associated with secure storage, organisation and retrieval of hundreds of radiographs.

Ultrasound technology is another area where we have seen impressive changes in practice. From super-powerful, all singing, all dancing set-ups, such as the Logiq S7 Expert – which makes use of new matrix probes – and B-flow technology, useful for assessing vascularisation in tumours, for example, to the miniaturisation of scanners, allowing us to both reduce the amount of space taken up in clinics and take the scan to the patient, whether in a hospital or out on calls, the changes are staggering. To have that kind of imaging power in a device no bigger than a laptop is perfect example of the advances in technology we are enjoying in practice.



Chris is a small animal vet and technology enthusiast. In addition to getting excited at the latest gadgets, Chris writes about veterinary careers. When he's not writing or in practice, Chris likes nothing more than to don a parachute, find a plane and jump out of it very high up. Follow Chris at The Nerdy Vet (www.thenerdyvet.com), Twitter: @thenerdyvet

CHRIS SHIVELTON QUEEN

Revolutionary thinking

A true technical advance is one that takes an established way of doing something and completely rethinks it or revolutionises it. One such example is the v-gel, a new airway system for ventilating anaesthetised patients. The point to note is that it isn't an endotracheal tube – that's the revolutionary thing about it. Instead of inserting into the trachea, through the larynx, the v-gel creates an effective seal around the pharyngeal, laryngeal and upper airway tissues, thus positioning a large-diameter opening directly over the larynx to permit normal gas exchange with no trauma to, or even contact with, the larynx.

A key advantage to this system is that rather than needing a tube that is in effect smaller in diameter than the trachea, the v-gel allows the tube to be larger in diameter than the patient's trachea, thus, maximising air flow and exchange. The soft rubber tip, which automatically "plugs" the oesophagus, also serves as a good counter to the risk from regurgitation under anaesthetic. Currently available for rabbits and cats, with dog versions in development, these new devices represent an example of a smart, cleverly designed advance to an existing technology.

Client engagement

We're all aware of the need to better engage with and market to our clients – current and prospective – with competition between practices apparently on the increase. Methods for doing so have never been so plentiful nor powerful, yet many of us are still failing to maximise on the potential returns that doing so could bring.

A simple way to engage with clients, and those who show an interest in our services, is through email and the careful but effective management of email lists. Email management services, such as MailChimp, which enable even the most technophobic of users to set up a mailing list, design a web form to be posted on a website, social media, or even accessed via a link that can be emailed, and then organise, manage and communicate effectively with the people on that list, are brilliant for practices. Imagine, for example, how impressed your clients would be to receive an email on their pet's birthday wishing them many happy returns. Combining this thoughtful gesture with the suggestion of a senior health check (if the pet has just turned seven, for instance), is an easy yet effective way of driving more business through your doors.

Through careful segmentation of lists, such as having a list containing only those clients who own cats under seven, it becomes much easier to offer them relevant information they will find interesting and useful, resulting in a greater level of trust in and bonding with you and your practice. How many of us actively ask our clients or new prospects for their email address? My guess is very few. These days people almost expect to be asked for it and we should be making better use of the advances in email and online marketing, much of which is available either free or at very low cost, especially when