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KEEP IT SIMPLE

MOBILE GIS IS SLOWLY ADOPTING CONSUMER TECHNOLOGY, IN PART BECAUSE OF DEMAND FROM USERS, IN PART BECAUSE IT'S EASIER TO USE

These days, you'll often find that the best tech isn't in the hands of the professionals – it's the consumers who have it. With restricted budgets and hardware refresh cycles that are now frequently slower than home users' own update habits, corporate IT usually finds itself giving out yesterday's technology today… or, more often than not, last week's technology yesterday.

It's no surprise, therefore, that "bring your own device" (BYOD) has been an IT buzzword for several years now. Often, employees will want to use their own superior technology for work, rather than what they've been issued, and IT employees have had to adapt to enable that to happen – often because it's the company executives who are the first to demand that they be able to use their iPads to make presentations, access data and so on.

BYOD hasn't yet made many inroads into geospatial applications. As well as the powerful hardware required by certain geospatial software, the robustness required of devices and the speciality hardware that's frequently necessary have all meant that employees rarely have devices at home that they can use at work.

But as we can see in this issue, smartphone technology is increasingly affecting and being adopted by users around the world in disparate geospatial applications. There are many reasons for this, including their relative cheapness, ready availability and plethora of functions. Their increased ruggedness helps: Apple and other vendors have learned that technology used by consumers, particularly children, needs to be built to withstand drops and similar experiences.

Their expandability also makes them more useful in geospatial applications, since although they don't often come with survey-grade GNSS functions, for example, they come with Bluetooth and other forms of connectivity that enable them to link to equipment that does.

Usually, however, it's software that is causing surveyors to consider mobile devices. Not simply the availability caused by the critical mass of developers that now write applications using the cheap and simple tools available. Not simply the easy maintenance and updating of the devices, which need never go near to a support department to be constantly upgraded with new features and bug fixes.

Instead, it's the ease-of-use that mobile devices provide: smartphones are designed to be simple for users, to be understood by anyone of any almost age in almost any culture, without any specialist training. That ease-of-use spreads to mobile 'apps' almost by osmosis: end-users will refuse to use something that is too different from the interface of their device and developers therefore have to make something that's as easy to use as the device's built-in programs. Maybe without even realising it, they'll subconsciously avoid using options that they might previously have used, being able to rely on training courses or users' own existing training; they'll switch instead to the 'accessibility' and 'usability' standards that companies such as Apple have used to prosper and dominate others.

"It just works" should be the refrain of Mobile GIS developers and users around the world.

On page 22 this issue, Monica Miller Rodgers and Katherine Lehmuller look at how the field crews at the largest passenger airport in the world have adopted consumer technology for asset management. With Esri's Collector for ArcGIS built to exploit all the industry-standard features available on consumer devices, Hartsfield-Jackson Atlanta International Airport decided it could be worth adopting the app in conjunction with Leica surveying equipment, in order to survey the 1,900ha of infrastructure in its grounds.

While the hardware was more than up to the job, ultimately, it was the interface that made the project work – the Leica equipment uses the consumer Android operating system, with which the field crew were already familiar. Not only could they easily understand how to use it and start collecting and sharing data almost immediately, the field crews actually liked it.

Meanwhile, Haikou Wang looks at how the Australian Plague Locust Commission has moved with the times. When it first began 40 years ago, field staff for the commission used paper maps and low resolution earth observation imagery to guide their monitoring and surveying of plague locusts. Since then, the commission has moved with the times and adopted different technologies as they've become available.

Now it's testing iPads. How have they panned out in the Australian summer, in the glare of the sun and in 40º temperatures? Find out on page 26.

I hope you enjoy the issue.