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THE TIME, THE PLACE

THE GOOGLE MAPS API HAS BEEN WITH US FOR A DECADE NOW. IT'S CHANGED, JUST AS END-USER'S REQUIREMENTS OF LOCATION-BASED SERVICES HAVE CHANGED

No matter whether you're a new arrival in the geospatial industry or are a lifelong veteran, you'll probably be surprised to hear that the Google Maps API is 10 years old this year. For some, it'll be hard to remember a time before an accurate, vector web basemap was universally available through just a few lines of JavaScript, a time when adding even a simple map to a web site was a technically difficult, usually compromised activity, let alone one that allowed you to pan-and-scan, zoom in and out and more, all without requiring the end-user to install plug-ins, update their Java VM and more. For others, the surprise will simply be that something that seems so innovative and new is already 10 years old.

In this issue, we focus on location-based services such as Google Maps, how they're changing, their latest applications and what the current generation of users expects. We begin on page 24 with Google's own Matt Toon, who looks back over past 10 years of the Maps API as well as some of the other geospatial innovations that Google and others have produced over that time. In particular, he explains how users's requirements for location-based services have gone beyond a simple 'How do I get somewhere?' to 'What is around me and what do I need?', as well as how other companies can build services on top of Google's various platforms.

How people access location-based services has also changed in the past decade. Where once the desktop or laptop PC was king, now the smartphone and even wearable technologies are the devices most likely to be accessing positioning services. Using mobile apps, people are interacting with others around them, tracking their own movements, navigating in unfamiliar territories and a whole lot more. On page 26, Donna Reay and Cristina Comunian reveal the results of some European research into the GNSS and location-based services markets. They look at who's doing what, what mobile devices are currently using for positioning technologies, what they're likely to be using in a few years' time, and some of the market imperatives that are forcing changes, such as Russia's tax on GNSS devices that don't support its own GLONASS system.

This is the kind of market information that businesses now need. While investments have always required justification before, enterprises both small are large are mostly now leaner than they were and less willing to take chances. Before investing in a location-based service, boards want proof that they're going to get a return. On page 28, James Bradshaw looks at some of the way that organisations can quantify the value of location intelligence and location intelligence tools and show that any investment will provide a suitable return.

Of course, positioning technologies and location-based services aren't just used with people – as well as vehicles and other mechanical assets, tracking technology has been important when monitoring animals, whether that's been tracking migratory or rare birds or whales, following household pets with a tendency to get lost or checking on the locations of animals that could be conveying disease.

On page 30, Corry Brennan looks at how one Norwegian sheep farmer took matters into his own hands and created his own location-based service. In 2009, Halvor Mjoen family lost 22% of its sheep flock to predators during the grazing season. He decided to fit his flocks with collars that would alert him if a sheep strayed out of its grazing area or escaped altogether. However, having no mobile phone network in his region, he hit on the idea of using a satellite network to convey the signals from the animals' collars.

Since then, Mjoen's system has become a commercial enterprise, FindMySheep, which in time added FindMyAnimal to the family as its applicability to other Norwegian grazing animals became obvious. Now, more than 21,000 animals are wearing Mjoen's collars.

Elsewhere this issue, on page 15, our columnist Alistair Maclenan honours another champion of location technology and argues that we need to inspire others by rewarding those like Mjoen who innovate.

Meanwhile, on page 32, we report from the recent Riegl LIDAR 2015 conference in Hong Kong and Guangzhou, and on page 34, we talk to Barbara Ryan, secretariat director of the Group on Earth Observations, about the Eye On Earth global movement's attempts to improve access to earth observation data, as well as its forthcoming summit in the United Arab Emirates in October.

I hope you enjoy the issue.