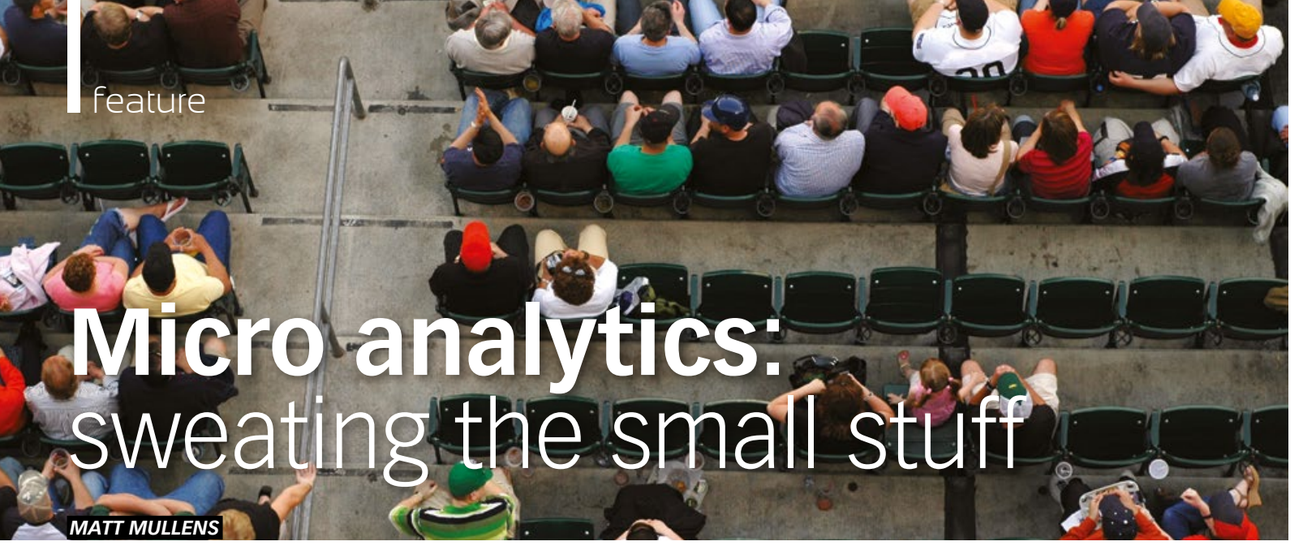


Micro analytics: sweating the small stuff

MATT MULLENS

Within the Australian location analytics landscape, much of the focus is at the macro level: large-scale, high-level views of how an organisation's various individual parts function within a network.

For example, it is common for the 'Big Four' banks to use geospatial technology to examine the relationship between their branches, socio-demographic data, ATM and their networks. Similarly, electricity distributors regularly use the approach to ascertain a particular substation's influence on electricity supply.

However, macro analytics' oft-neglected cousin, micro analytics, has only successfully gained traction in the online world, where the ability to record and analyse visitor movements and behaviours has been inbuilt. This has delivered terms such as click rates, impressions and engagements – information aimed at explaining where, when, why and how we behave online.

In the 'real' world though – that is, one of bricks and mortar – answering those questions has been trickier… until now.

New technological products have hit Australian shores and, finally, it's micro's time to shine.

It's a trend known as 'visitor analytics' – and essentially it uses technology to map and analyse a customer's behaviour in real time as they move around a facility.

Not surprisingly, the technology works using a ubiquitous piece of equipment many of us find indispensable in the modern world: a Wi-Fi connected mobile device.

As they search for networks to communicate with, Wi-Fi enabled devices regularly send out signals, called 'pings'. As part of this process, the 'pings' provide location information, called proximity data.

Sensors are strategically placed around a coverage area to collect 'pings' and analyse the proximity data from multiple devices, providing an aggregated picture of where users are and have been.

All this is made available in near-real time via an interactive dashboard or through reports. Heat maps – where the data is represented as varying degrees of colour – are among the most easily understood ways of visualising the information. Results are contextualised when mapped over other layers specific to the coverage zone, such as infrastructure, service locations, and entry and exit points.

Insights – such as total, unique and return visits; dwell time (how long people stay in a particular area); and draw rates (how many visitors entered versus those that walked by) – can then be gleaned with a simple click of a mouse.

Digital mapping specialist MapData Services (MDS) general manager Cassandra Barker – a convert to the approach – believes it will profoundly change the way social spaces are interacted with and, consequently, designed.

"For the first time, decision-makers will be able to see – in a scientific and verifiable way – how visitors are navigating through their spaces," Ms Barker said.

"This includes where they go, where they don't go, how long they spend in particular areas and routes they take or avoid.

"Pivotal questions can then be answered. How does the position of elements within the space – walkways, signage or services, for example – impact how people use it? How can these be reconfigured and adapted to optimise the space?

"Armed with this knowledge, spaces can be tweaked and redesigned, minor or major changes can be made, and the changes monitored for effect."

Of course, what is optimal will largely depend upon the nature of the zone being monitored. For many, an obvious goal would be to increase sales by guiding consumers to products or services in certain areas of a store or facility.

But Ms Barker is quick to point out that the approach extends far beyond retail and will inevitably touch almost every area of modern society.

"The applications of Visitor Analytics are endless: hospitals, stadiums, universities, galleries and transport hubs," Ms Barker said. "These are all spaces in which the way visitors interact with the environment is vital to getting the best out of the facility itself."

Ms Barker believes that in the case of entertainment centres, Visitor Analytics will transform spaces into interactive areas offering enhanced customer experiences and efficiency.

"Understanding dwell times is essential to providing the best experience for attendees at sporting matches, concerts and other stadium-based events," Ms Barker says.

"For example, identifying congestion at gates can lead to better decisions about how to free up movement into and out of facilities."

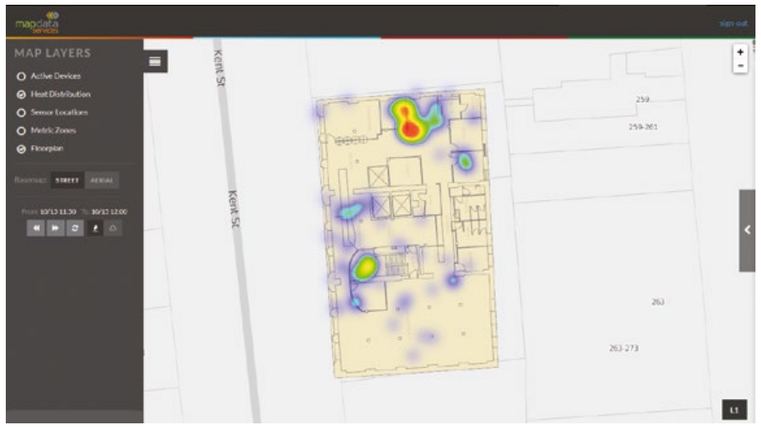
Ms Barker predicts banking to be another area to benefit from the technology.

"Banks are incredibly interested in how people interact with their branches; in particular, they want to understand when people come in and how they can more effectively direct traffic through the branch," Ms Barker said.

"They also want to test how that may change if they introduce a new product, and how city and suburban branches differ."

"The aim is to discover the underlying patterns and trends behind visitor behaviour.

"Visitor Analytics technology captures approximately 30 per cent of devices within the coverage zone. Statistically speaking; this sample size sits well above the industry average for data collection."



The proximity data collected is completely anonymous and, as an added security measure, encrypted before it is aggregated and included in reports.

"The kind of insight this technology will deliver is really exciting," said Ms Barker.

For a more personalised experience though, mobile device owners can choose to opt-in to 'active' technology services. An example would be an app that activates a geo-triggered message when a user enters a certain area, or a map app for navigation around a particular space.

For the user, these provide access to special features, deals and discounts. For organisations, they provide extra value by engaging people when they are literally in the best position to respond.

"Stadiums will be interested in enticing sports fans to food stalls, with lower-prices when customer activity is low," Ms Barker said.

"Alternatively, with regards to navigation, hospitals can use mapping apps to remove some of the stress of finding a loved one in a strange and clinical labyrinth."

Ms Barker said these two examples of Visitor Analytics work hand-in-hand to help organisations create an optimal visitor experience, adding that the technology's navigation capabilities will continue to develop in the future.

"It's certainly about optimising resources but, more significantly, it will ensure people enjoy their time at a location – or reduce stress in the case of hospitals," Ms Barker said.

"In simple terms, optimising your space efficiently means the other aspects, such as ROI and increased sales, will be positively impacted." ■