Can Kepler Succeed Where Euclid Failed?
*A Survey of People-Counting Technologies at NRF 2020*

Mohinder Sikka
Senior Editor
IT Newswire

People counting has been in use at retail stores for decades now. The grand old daddy of this industry was a company called ShopperTrak. ShopperTrak used an infrared sensor placed on the door of a retail store that would count the number of times customers passed through the door. Though effective, this technology was expensive and difficult to install. ShopperTrak was eventually bought by Tyco Sensormatic which, in turn, was acquired by Johnson Controls.

The second wave of startups in shopper tracking began with the advent of smartphones. With shoppers walking around with Wi-Fi- and Bluetooth-connected devices in their hands, it did not take long for technologists to realize that these phones were perfect tracking candidates and a host of new location-tracking companies were spawned. The most visible among them was Euclid Analytics. Euclid raised a total of $43 million in funding before inviting the ire of Senator Charles Schumer for its pervasive privacy violation. Since they were capturing MAC addresses from shopper's phones, without their permission, Euclid's solution was deemed borderline creepy. As retailers were forced to push back against the "Opt-out" solutions, Euclid lost retailers' business, changed into a spatial analytics company and was eventually acquired by WeWork.

Now, another startup, Kepler Analytics, from down under Australia, is tackling the same problem with claims that its technology does not infringe on people's privacy. Its technology was initially developed by David Mah for the unlikeliest of applications—tracking miners deep inside mines, where there is no Wi-Fi, Bluetooth or even light for vision cameras. David solved the miner-tracking challenge using RF emitted from electronic devices. Euclid's antennas only captured the RF for the presence of a device, not the MAC addresses of devices or any PII (Personally Identifiable Information). When the mining industry in Australia went south, Kepler Analytics pivoted to retail. From lowly beginning in labs at the University of Melbourne, Kepler has grown to thousands of stores and raised $6 million in funding. Some of its key customers include Hanes Brand stores in the U. S.
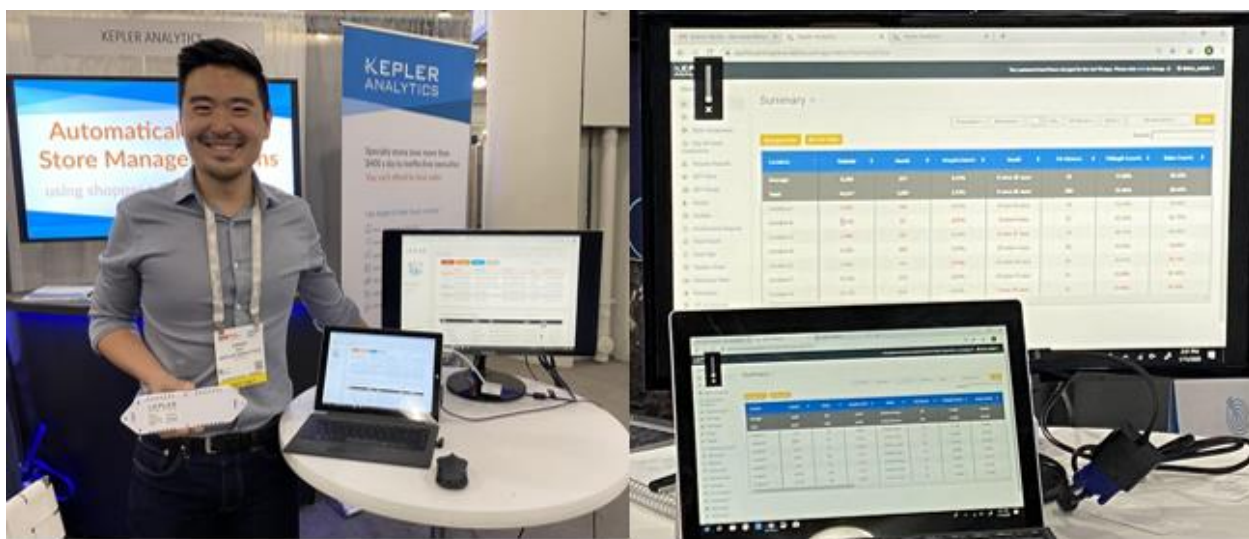
David Mah, founder of Kepler Analytics, showcasing its unique device and software

A typical Kepler customer installs a device at the store entrance and another in the fitting room. Store managers get alerts on metrics such as conversion rates and fitting room usage. Kepler's software tracks 19 metrics to enable data-driven store operations. The system works with cellular SIM cards, so installation can be completed in a short span of two to three weeks for hundreds of stores.

In fact, the company is so confident that its privacy friendly approach is the solution that the retail market in the U. S. is now looking for, that it has brought on founder of ShopperTrak, Bill Martin, as its key advisor for the U. S. market.

However, it's yet to be seen if Kepler can succeed where Euclid couldn't. There is no lack of competition in the shopper-tracking solution. We counted at least 20 startups presenting at NRF 2020 with shopper-tracking solutions. These include:

1. RetailNext
Dominant player in US market, uses Wi-Fi and video sensors on the store ceilings.

2. Vayyar
Leader in 4D image sensing with applications for Retail.

3. Placer.ai
Focused on Spatial Analytics for malls, venues, and stores.

4. Pathr.ai
AI-powered Spatial Intelligence Platform, uses existing store data, such as security camera.

5. Intraposition
Ultrawideband and TDOA (Time Difference of Arrival), with a broad set of applications.

6. Motionloft
Vision technology for pedestrian counting.

7. Dor
Low-cost leased offering for smaller retailers.

8. Aura Vision
Security cameras for retail analytics.

9. StaffCaster
Shopper counts for staffing schedules and utilization.

Whether or not Kepler succeeds in the U. S. market, one thing is clear: U. S. retailers are investing in technologies to improve shopping experience and the future of retail is insights from data.