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MARKETS

Your Smartphone's Location Data Is Worth Big Money to Wall Street

The phone in your pocket is dishing info on where you spend your time and, likely, money

By *Ryan Dezember*

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When Tesla Inc. [TSLA -0.25% ▼](#) Chief Executive Elon Musk said the car maker would work around the clock to boost production of its Model 3 sedan, the number crunchers at Thasos Group decided to watch.

They circled Tesla's 370 acres in Fremont, Calif., on an online map, creating a digital corral to isolate smartphone location signals that emanated from within it. Thasos, which leases databases of trillions of geographic coordinates collected by smartphone apps, set its computers to find the pings created at Tesla's factory, then shared the data with its hedge-fund clients, showing the overnight shift swelled 30% from June to October.

Last week, many on Wall Street were surprised when Tesla disclosed a rare quarterly profit, the result of Model 3 production that had nearly doubled in three months. Shares shot up 9.1% the next day.

Thasos is at the vanguard of companies trying to help traders get ahead of stock moves like that using so-called alternative data. Such suppliers might examine mine slag heaps from outer space, analyze credit-card spending data or sort through construction permits. Thasos's specialty is spewing out of your smartphone.

"It's creating this data all the time, even if it's not ringing," said Greg Skibiski, Thasos's 45-year-old founder and chief executive. "It's a beacon. Every single person is carrying this beacon."

Thasos gets data from about 1,000 apps, many of which need to know a phone's location to be effective, like those providing weather forecasts, driving directions or the whereabouts of the nearest ATM. Smartphone users, wittingly or not, share their location when they use such apps.

Before Thasos gets the data, suppliers scrub it of personally identifiable information, Mr. Skibiski said. It is just time-stamped strings of longitude and latitude. But with more than 100 million phones providing such coordinates, Thasos says it can paint detailed pictures of the ebb and flow of people, and thus their money.

Alex "Sandy" Pentland, a Massachusetts Institute of Technology computer scientist who helped launch Thasos, likens it to a circulatory system: "You can look at this blood flow of people moving around."

Alternative data's utility to investors is the subject of debate. Critiques range from the argument that samples can be riddled with biases and errors, to the idea that most data is fairly useless for predicting stock prices.

Thasos says it can count the phone-carrying shoppers who ditch their regular grocers when a new Whole Foods opens, or gauge drilling activity by sizing up the crowds at oil-patch bars. By identifying the census block where each phone spends the night, Thasos algorithms estimate how far customers travel to malls and shoppers' incomes.



A worker on the Model 3 assembly line at Tesla's Fremont, Calif., factory on June 11. PHOTO: BRIAN MOLYNEAUX FOR THE WALL STREET JOURNAL

Thasos won't name its clients, but Mr. Skibiski says it sells data to dozens of hedge funds, some of which pay more than \$1 million a year. Thasos's largest investor is Ken Nickerson, who helped build PDT Partners into a quantitative-investing mint inside Morgan Stanley .

This month, Thasos is set to start offering data through Bloomberg terminals. A measure of mall foot traffic will be widely available; detailed daily feeds about malls owned or operated by 30 large real-estate investments trusts cost extra.

Mr. Skibiski said he got the idea to analyze cellphone location data while sitting on a beach in Barcelona. He had lucked into a job after college with an Israeli technology startup and cashed out of his IPO shares just before the dot-com bubble burst. He sought out Mr. Pentland, whose pioneering work in geolocation at MIT had involved monitoring students as they walked around campus with GPS units attached to their hats.

Eager for a meeting with the famous professor, Mr. Skibiski arranged to give a presentation at a technology conference in Barcelona, in a slot right before one of Mr. Pentland's protégés. It worked. The protégé heard Mr. Skibiski talk and invited him to Cambridge, Mass., where he and Mr. Pentland hit it off and decided to start Sense Networks Inc.



Thasos Chief Executive Greg Skibiski held his iPhone for a portrait at his office in Union Square in New York City on Friday, Oct. 26. PHOTO: JOHN TAGGART FOR THE WALL STREET JOURNAL

In 2003, phone location data was controlled by wireless carriers and gathered by cell towers. Sense Networks was building models using GPS data from taxis, and phone companies hired it to determine which users of prepaid cellphones might have good enough credit for contract service. Mr. Skibiski and scientists at Sense studied movements of prepaid phones, looking for users who arrived at the airport on Monday mornings for business flights or dined in expensive restaurants.

In 2009 Mr. Skibiski raised \$6 million from venture firms. One of their first moves was to fire him. Mr. Skibiski said he walked into a Manhattan law office that November for the first board meeting with the company's new investors and was handed a letter of resignation with his name on it. He had unwittingly enabled the investors to oust him when he signed the funding paperwork.

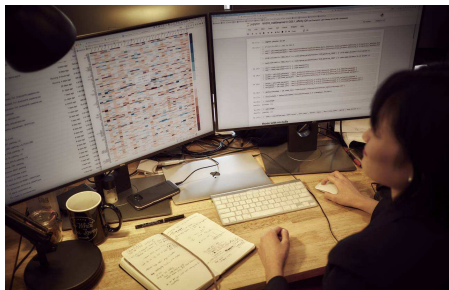
On his way home, he picked up a copy of Businessweek and hailed a cab. He cried as he flipped to an article about hot startups that included Sense.

Eventually the company was sold to YP, a search and advertising firm. Mr. Skibiski had lost his company—but its move into marketing left a door open to use location data for economic analysis.

The advent of smartphones meant location data was no longer controlled by a few carriers, and it was much more accurate coming straight from a phone than triangulated between cell towers. Messrs. Skibiski and Pentland started Thasos.

"We knew the customers were going to be hedge funds," Mr. Skibiski said. They wouldn't want exposure to privacy issues. "The first thing we did is had hedge-fund lawyers set up the company as a legal entity to pass compliance." Census data is the model, Mr. Pentland said—detailed enough to have value, but not so detailed that individuals can be identified.

Thasos hopes global phone data will appeal to currency traders. And it has ambitions to



Candice Yip, a quantitative researcher at Thasos, working at the company's Manhattan headquarters. PHOTO: JOHN TAGGART FOR THE WALL STREET JOURNAL

produce data for applications such as urban planning and disaster recovery.

In September, as Hurricane Florence churned toward the Carolina coast Thasos watched evacuation zones and found that in well-to-do census blocks, 65% of the people fled, while only 39% left poor areas. Such information could inform disaster response or infrastructure spending, yet it might also have commercial value. “You might look at that and say, ‘Gosh, I could price insurance differently,’ ” Mr. Pentland said.

Write to Ryan Dezember at ryan.dezember@wsj.com

—*Jim Oberman contributed to this article*

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