

# THE WALL STREET JOURNAL.

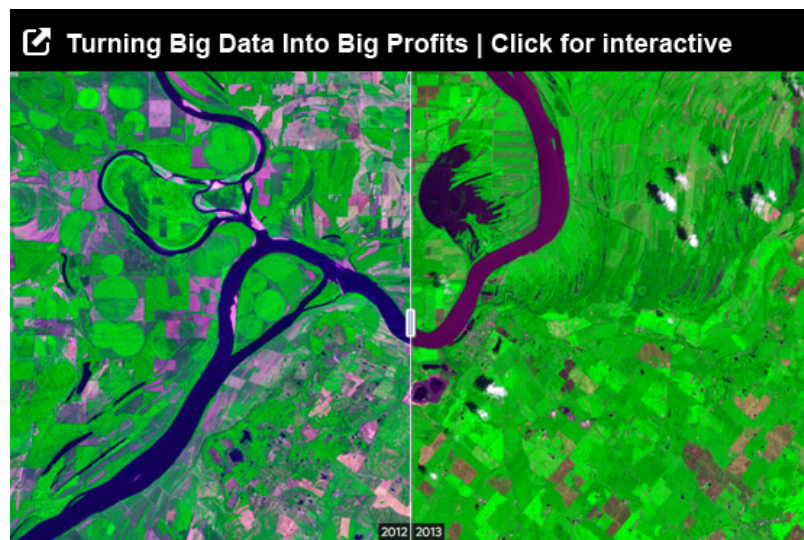
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## MARKETS

# Startups Mine Market-Moving Data From Fields, Parking Lots—Even Shadows

Firms Seek Insights on Business Outlook for Investors Seeking an Edge



Click on image to see how companies glean insight on crop sizes from satellite data of Indiana cornfields, or mine Twitter for early alerts on news. *ORBITAL INSIGHT/DIGITAL GLOBE*

By **BRADLEY HOPE**

Updated Nov. 20, 2014 4:38 p.m. ET

James Crawford sees money in weird places, including hidden in the shadows cast by half-finished Chinese buildings.

The former Google Inc. engineer is one of a coterie of entrepreneurs selling

analysis of obscure data sets to traders in search of even the smallest edges.

In many cases, the value isn't yet proved, but analysts say there is a growing market among sophisticated investors for snippets of information that aren't widely available.

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Orbital Insight's James Crawford previously ran Google's project to scan millions of books and make them searchable. *JAMES CRAWFORD*

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Take the changing shadows of Chinese buildings, which Mr. Crawford says can provide a glimpse into whether that country's construction boom is speeding up or slowing down. Mr. Crawford's company, Orbital Insight Inc., is analyzing

satellite images of construction sites in 30 Chinese cities, with the goal of giving traders independent data so they don't need to rely on government statistics.

Mr. Crawford, who ran Google's project to scan millions of books and make them searchable, said the company's first clients include several multibillion-dollar hedge funds, but he wouldn't disclose their names or the prices he is charging.

Orbital is also selling analysis of satellite imagery of cornfields to predict how

crops will shape up and studies of parking lots that could provide an early indicator of retail sales and quarterly earnings of companies such as Wal-Mart Stores Inc. and Home Depot Inc.

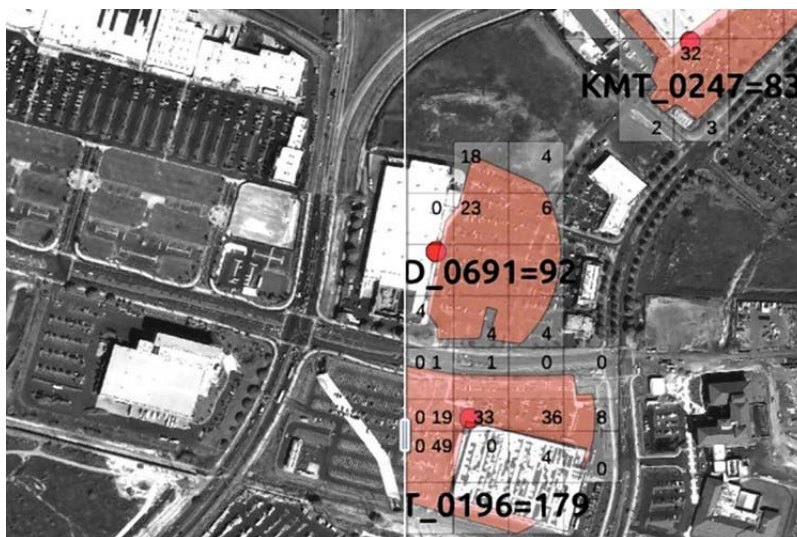
Other recent startups aim to use social media, crowdsourcing and other largely unexplored data sets to provide traders with breaking news and macroeconomic indicators.

“There is so much correlation in returns in the asset-management world that it’s becoming increasingly important to find ways to find new types of data,” said Ronnie Sadka, a professor of finance at Boston College’s Carroll School of Management.

However, analysts say traders would be wise to proceed carefully.

“I put these into the experimental category,” said Paul Rowady, a senior analyst at Tabb Group, a market-research firm. “These products are compelling on their surface, but there is a huge challenge in turning it into a trading indicator.”

For the parking-lot analysis alone, Orbital bought one million images from satellite companies and built computer systems to produce possible trading indicators out of the data.



SHOPPING FOR AN EDGE: There's a growing market among investors for obscure data sets, such as analysis of parking lots of big-box retailers, that could be an early indicator of retail sales. *ORBITAL INSIGHT*

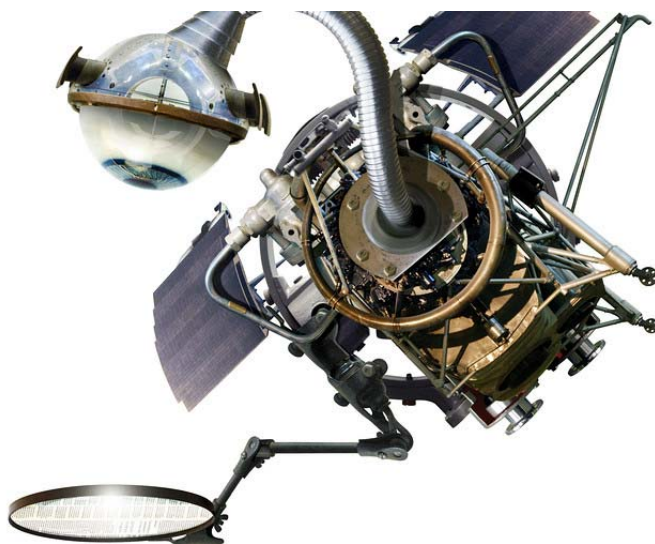
“This is just the beginning,” said Mr. Crawford, who also previously was a senior vice president of Climate Corp., a San Francisco company that uses weather data to help farmers predict their crop yield. Monsanto bought that company for

more than \$1 billion in 2013.

An early test of Orbital’s predictive system came on Thursday. Based on its historical analysis of cars in the parking lots of Ross Stores Inc., Orbital forecast the firm would report better-than-expected revenue in the third quarter. In fact, Ross even beat Orbital’s expectations with \$2.599 billion in revenue, compared with Orbital’s prediction of \$2.56 billion and analysts’ consensus of \$2.55 billion.

Orbital, whose early investors include Silicon Valley venture firm Sequoia Capital, hopes to raise as much as \$8 million in its next round of fundraising in the next few weeks.

Dataminr Inc., which combs through 500 million tweets a day to find market-moving news before it hits the wires, was among the first to get traction in this field.



VIKTOR KOEN

Founded by three former Yale University roommates, Dataminr is one of a handful of companies to whom Twitter Inc. provides the full “fire hose” of data that comes through its servers every day.

Dataminr’s systems categorize and analyze

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*‘A feed like Twitter has so much information, and there is certainly value hidden within it.’*

—Dataminr CEO Ted Bailey

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every single tweet in real time, weeding out spam and comparing information against news feeds, market prices, weather patterns and other data to determine its significance. The systems also check if a particular user has been reliable on

certain topics in the past.

On Sept. 2, when independent journalist Brian Krebs tweeted that Home Depot “may be latest credit card breach victim,” Dataminr’s systems rapidly identified it as a “Notable Signal” for its clients.

The alert went out to subscribers—which include 60 banks and hedge funds—a full 15 minutes ahead of financial news wires and before a 2% decline in Home Depot’s share price.

“There is no way to ignore social media as a data set anymore,” said Ted Bailey, Dataminr’s chief executive. “A feed like Twitter has so much information, and there is certainly value hidden within it.”

A senior banker who subscribes to the company’s services said his traders saw the first report of the Boston Marathon bombing in April 2013 on their Dataminr desktop app. They helped some clients put up hedges on the stock market, which began to decline soon after news organizations began reporting on the attack.

“Clients have maybe 50 people they talk to everyday,” he said. “It’s hard to differentiate yourself from the others. Having better information can make a big difference.”

Another startup, Premise Inc., makes small payments—often in the form of credit for cellphones—to people around the world who monitor prices of goods, giving the company an early idea of changes in inflation rates and other economic indicators.

The idea behind Premise’s macroeconomic data is that reality on the ground is often different from the official narrative.

The company distributes much of its data free of charge, but it also has some financial customers looking for hints on the direction of inflation in places such as India and China. Premise has people contributing data in 68 cities in 18 countries.

“In certain parts of the world, people don’t have a trustworthy source of information about economic conditions,” said David Soloff, chief executive of Premise. “Our goal is to foster transparency.”

Several hedge funds have also sought out data sets based on where people go each day from companies such as Placed Inc., which gathers information from

about 500,000 people who agree to be tracked through apps on their smartphones.

Placed Chief Executive Officer David Shim said the interest from big investment companies is “absolutely growing.”

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