



Alternative Data in Financial Services

Using Alternative Data for the
Advancement of Financial Services

Presented by:
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About Caserta

- Established in 2001
 - Award Winning Company
 - Foundation Built on Data
 - Strategists, Architects, Engineers, Analysts, Scientists
- Data Ecosystem Reengineering
 - Data Lake Architecture
 - Data Warehousing
 - ETL Orchestration
- Transformative Strategic Consulting
 - Business Intelligence
 - Data Intelligence
 - Artificial Intelligence
 - Data Governance
- Advanced Technical Implementation
 - Data Architecture
 - Data Engineering
 - Data Science

Financial Services / Energy / Healthcare / Insurance / Higher Education
Media / Entertainment / Ad-Tech / Consumer Brands / Healthcare / eCommerce

What is Alternative Data?

-  Alternative data sets are information about a particular company that is published by sources outside of the company, which can provide unique and timely insights into investment opportunities
-  An alternative data set can be compiled from various sources such as financial transactions, sensors, mobile devices, satellites, public records, and the internet.
-  In addition to public websites, hedge funds are collecting and crunching data generated by credit card transactions, satellite images of parking lots, and customers reviews.

24 Categories of Alternative Data



Why We Care...

..."because instead of supplying a human trader with tips about breaking news, technology sweeps up data from 300 million websites, 150 million Twitter feeds, as well as analyst presentations and FactSet reports for traders—either humans or algorithms—to analyze. It uses natural-language processing to find keywords like company names, and measures when a story is rising up the media food chain, such as from blogs to newswires, to indicate that it may be important enough to act on."

- John Detrixhe, Future of Finance Reporter, Quartz

Alternative Data Facts

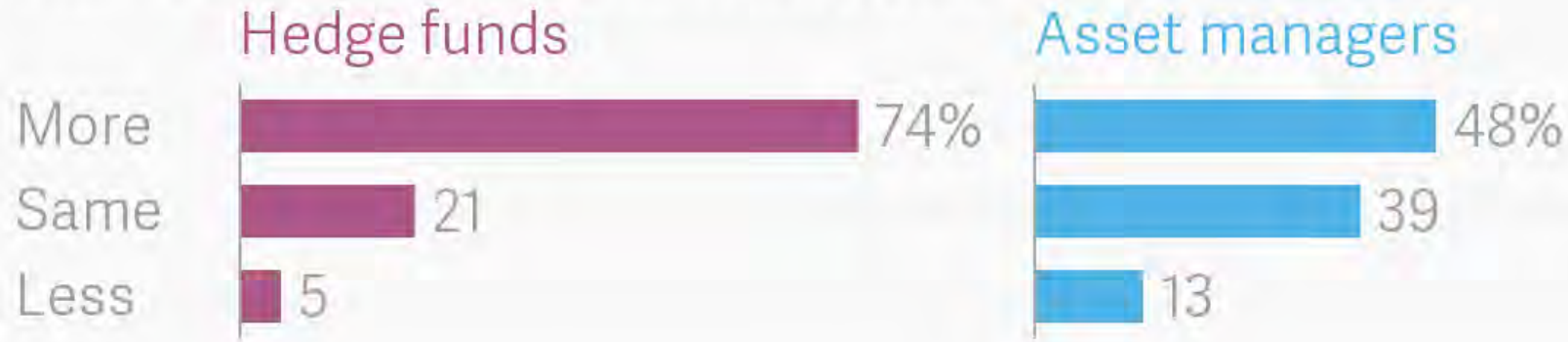
- Analytics can save traditional money managers time by sifting through news and data on their behalf
- Getting as much data as possible into machines running algorithms is becoming common practice in hedge funds
- News and data companies like Bloomberg and Thomson Reuters now include alternative data in their offerings
- About 75% of hedge funds already use social media and social-driven news feeds to inform investing decisions

Data is Food for the Future



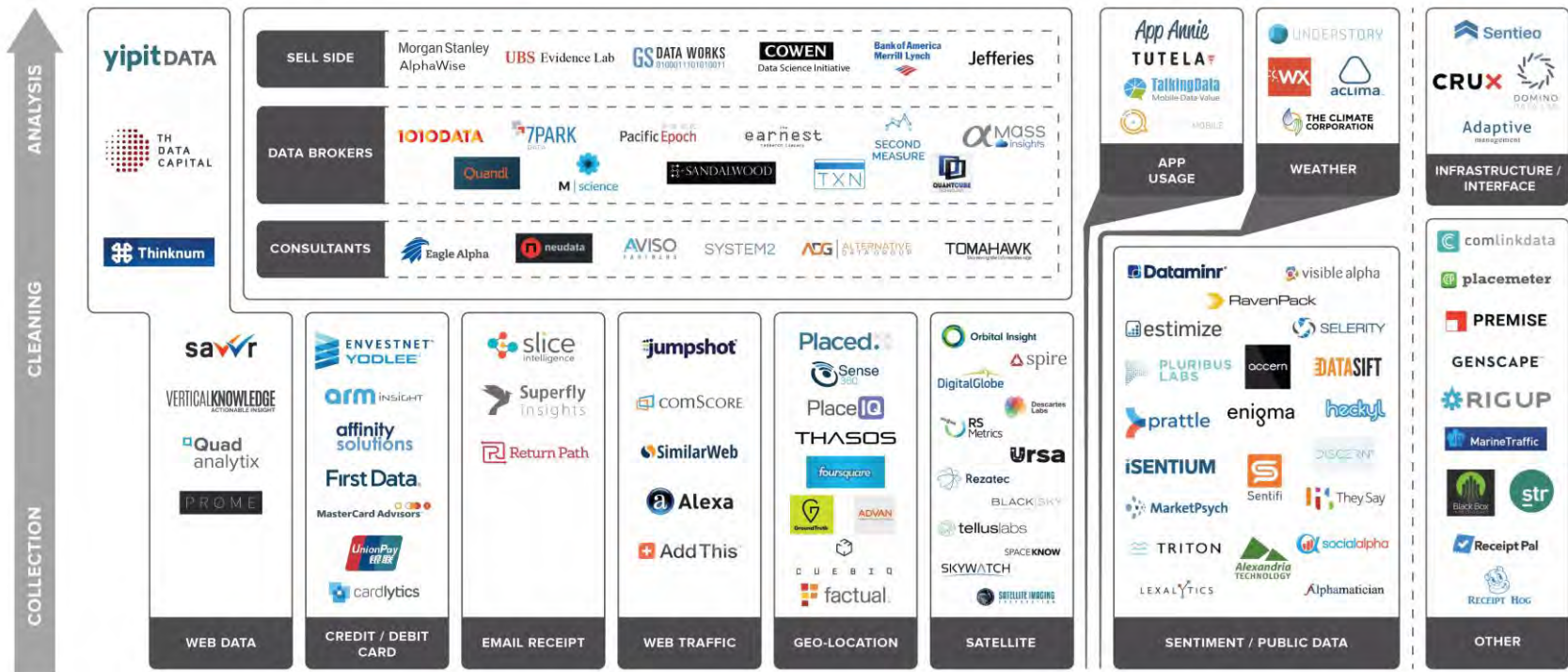
Gorging on Alternative Data

Planned spending on alternative data in 2018



Alternative Data Providers

Source: alternativedata.org



Architecting for Alternative Data

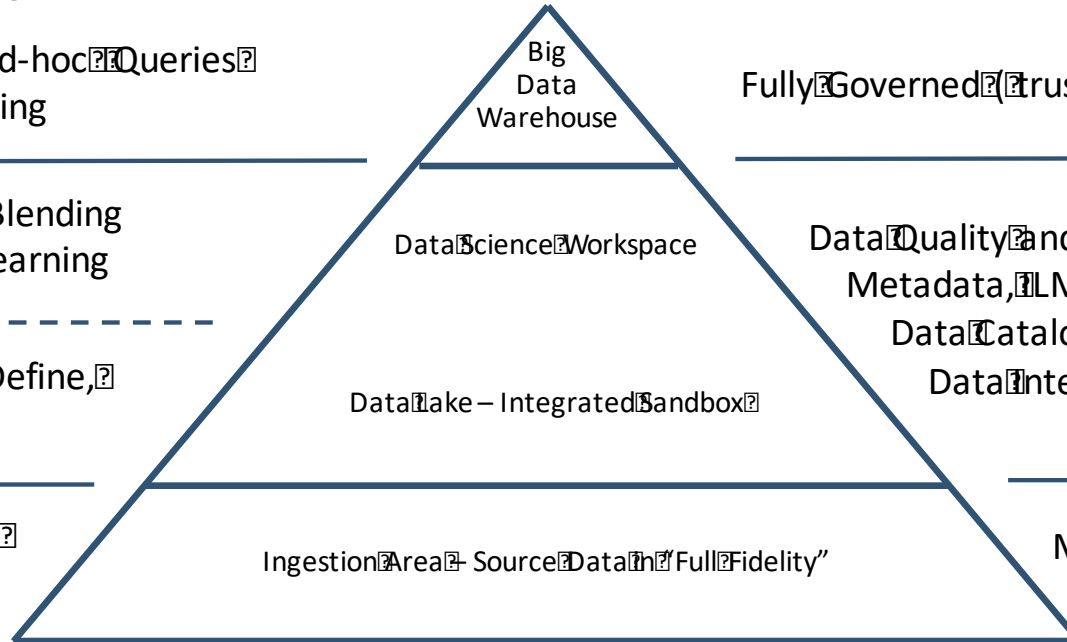
Usage Pattern

Arbitrary/Ad-hoc Queries and Reporting

Munging, Blending
Machine Learning

Organize, Define, Complete

Ingest Raw Data



Data Governance

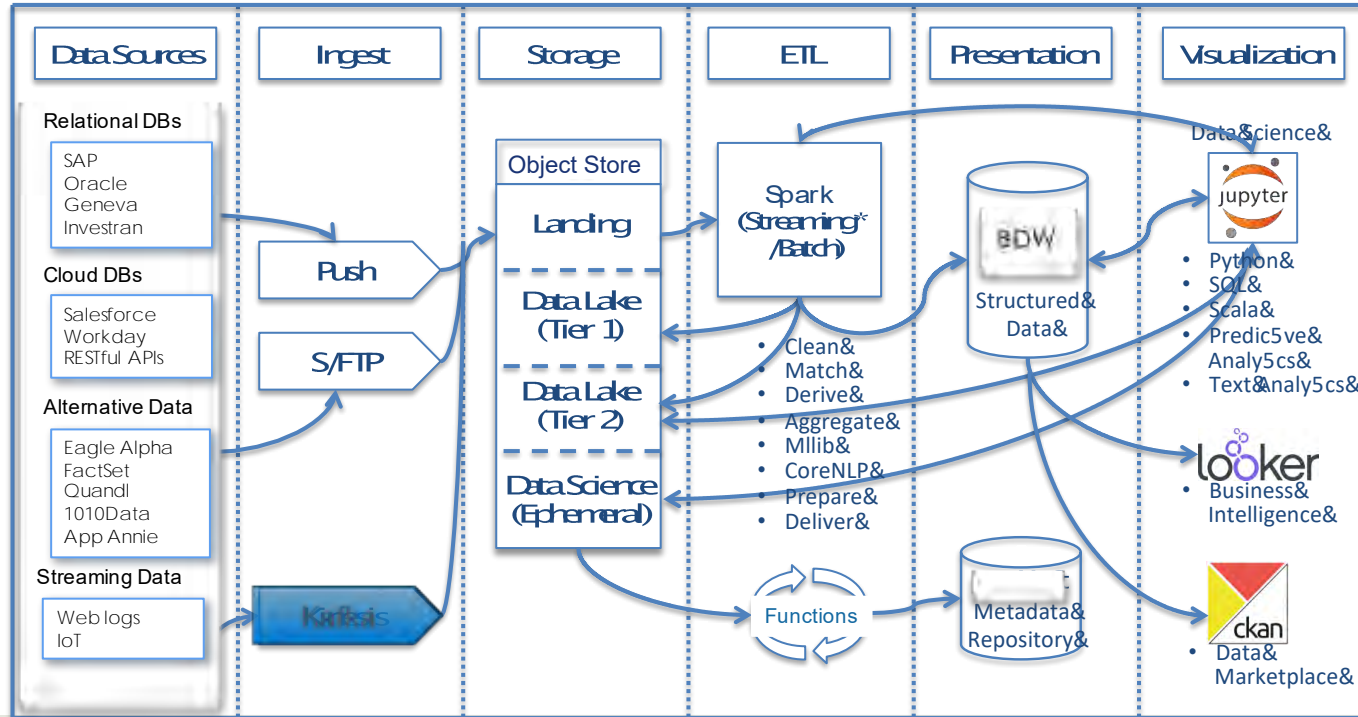
Fully Governed (Trusted)

Data Quality and Monitoring
Metadata, ILM, Security

Data Catalog
Data Integration

Metadata, ILM, Security

Alternative Data Reference Architecture








Moving to the Cloud









Data Pipelines on the Cloud

Cloud Component	AWS	Google	Microsoft
Scalable distributed storage	S3	GCS	Azure Storage
Pluggable fit-for-purpose processing	EMR	DataProc	HDInsight
Compute services	EC2	GCE	VMs
Consistent extensible framework	Spark	Spark	Spark
Dimensional MPP Data Warehouse	Redshift/ Snowflake	BigQuery	Azure SQL Data Warehouse
Data streaming	Kinesis	PubSub	Azure Stream
Common interface	Jupyter	DataLab	Azure Notebook
Machine Learning	SageMaker	TensorFlow	ML Studio







Training Financial Machines to Think

-  Integrate alternative data and internal data assets
-  Start with Machine Learning algorithms to derive insight
-  Add Artificial Intelligence to your ecosystem
-  Leverage APIs from 3rd parties
-  Integrate Chatbots as personal assistants

Talent Management Goals

-  Find the Best Talent
-  Data Scientist with FinSrv
-  Cloud Architecture
-  Python, SQL, ML
-  Build Skills of Existing Talent
-  More than technology: Think like a Financial Analyst

Imagine the Possibilities

-  Create an Alternative Data Framework
-  Automate Mundane Tasks
-  Embed Data Cleansing and Integration
-  Use Big Data Ecosystem
-  Embrace Change
-  Leverage Consultants

Innovations may fail, but companies that don't innovate will fail




Thank You!

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