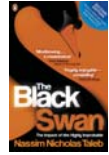
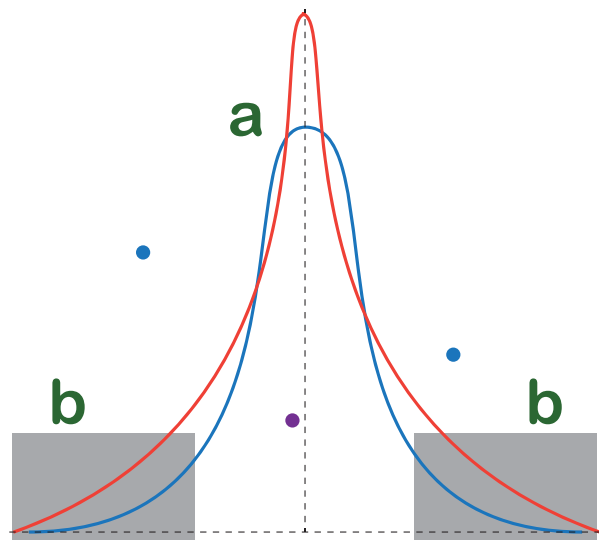


Anomaly Hunting - Finding observations that do not conform to normal, expected behavior



C When we fatten the tails, we have **higher peaks, smaller shoulders**, and higher incidence of very **large deviations**.

- Nassim Taleb

"We are prone to overestimate how much we understand about the world and to underestimate the **role of chance** in events."

- Daniel Kahneman
Nobel Memorial Prize in Economic

A.I. and Machine Learning = **no rewards** for **taking risks**

e IBM has 10,700 mentions of the phrase "anomaly detection" on ibm.com

IBM	10,700
Microsoft	9,300
Cisco	3,660
Intel	2,210
Oracle	2,170

Consulting Companies

Deloitte	383
E&Y	140
BCG	95
McKinsey	80
PwC	51
Bain	2
Booz	0
Mercer	0

Insurance Companies

Humana	1
AIG	1
Anthem	0
State Farm	0
MetLife	0
Aetna	0

Finance Companies

Citigroup	21
American Express	8
Fannie Mae	5
Wells Fargo	2
Morgan Stanley	1

Industry Companies

GE	148
Honeywell	20
Lockheed Martin	6
Boeing	2
General Dynamics	0

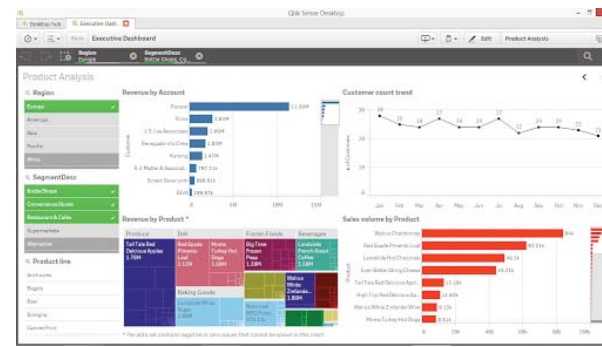
Airline Companies

American Airlines	39
Delta Air Lines	0
United	0

Oil & Gas Companies

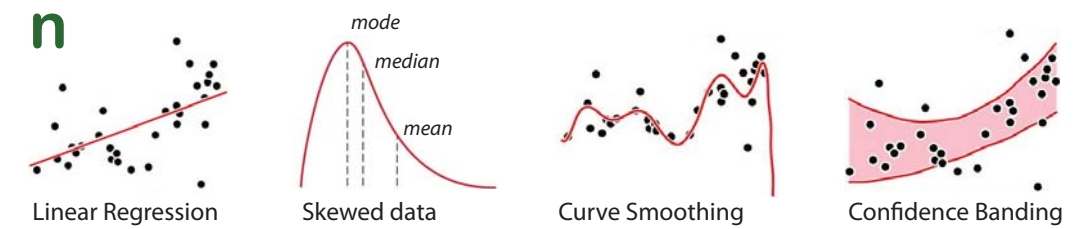
ExxonMobil	2
ConocoPhillips	1
Chevron	0
Phillips 66	0

885 open positions on Indeed.com, but only 3 resumes



Anomalies...

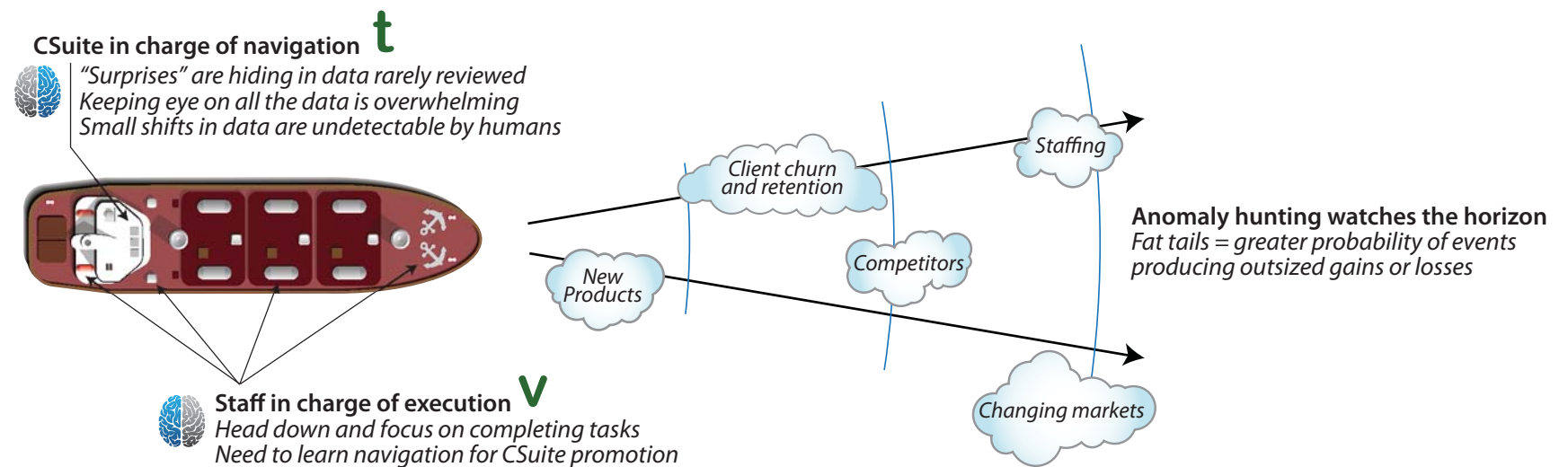
don't fit into existing systems, used to identify potential risks
point to new knowledge, potential to deepen and extend existing theories



m Business Intelligence:
limited number of reports, summaries, dashboards, graphs, charts and maps

S Every time you hear sum, count, average, etc. in a meeting... ask about anomalies

Disease & Treatment Analysis	Infrastructure Performance	Geophysical Properties & Features	College Admissions	Business & Consumer Loans	Election Integrity
Radicalism & Terrorism	Financial Irregularities	Cybersecurity	Sales Touchpoints	Scientific Research	Elder Care



W Disruptive innovation - all employees rowing in same direction, learning navigation

