

The logo for AWS re:Invent, featuring the text "AWS re:Invent" in white and orange. The background of the top section is a dark blue and black pattern of glowing, interconnected lines and shapes, resembling a circuit board or data network.

AWS
re:Invent

Big Data for Disruptive Models

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SOFTWARE IS EATING THE WORLD

Google amazon

DATA DRIVEN



**DATA IS FUELING
SOFTWARE**



Powered by



amazon
web services™

Powered by  **amazon**
web services™

...on Machine
...analyze customer
...on packaging and
...predictions to identify
...ducts that are suited for our
**Frustration Free and
eCommerce ready packaging
standards”**



Powered by  **amazon**
web services™

...s to unload an
...n of products and
...available for purchase in
...little as 30 minutes

amazon.com
Prime



Powered by  **amazon**
web services™

what makes Amazon Echo able
to respond to your voice



Powered by  **amazon**
web services™

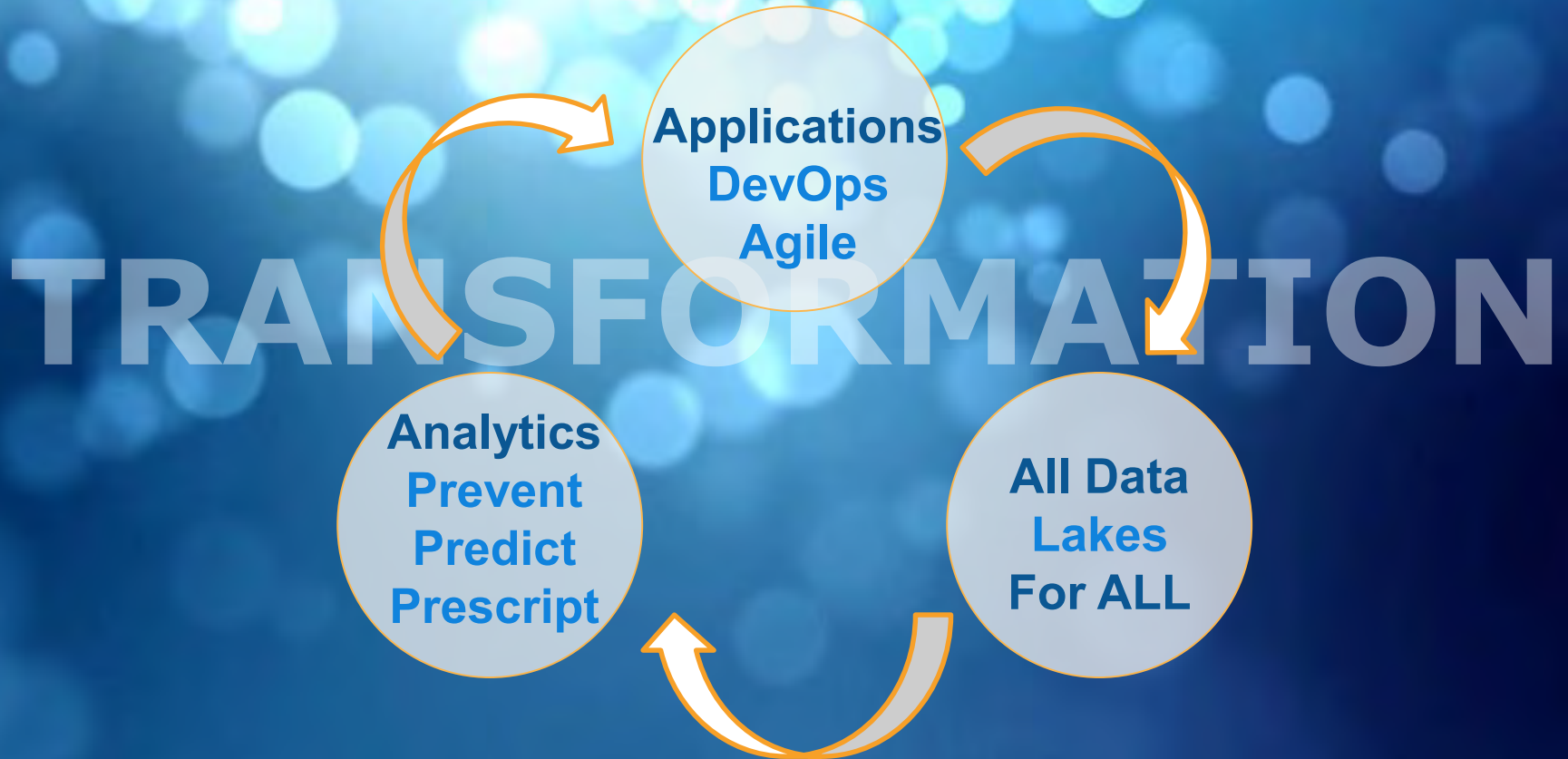
50 BILLIONS PREDICTIONS PER WEEK



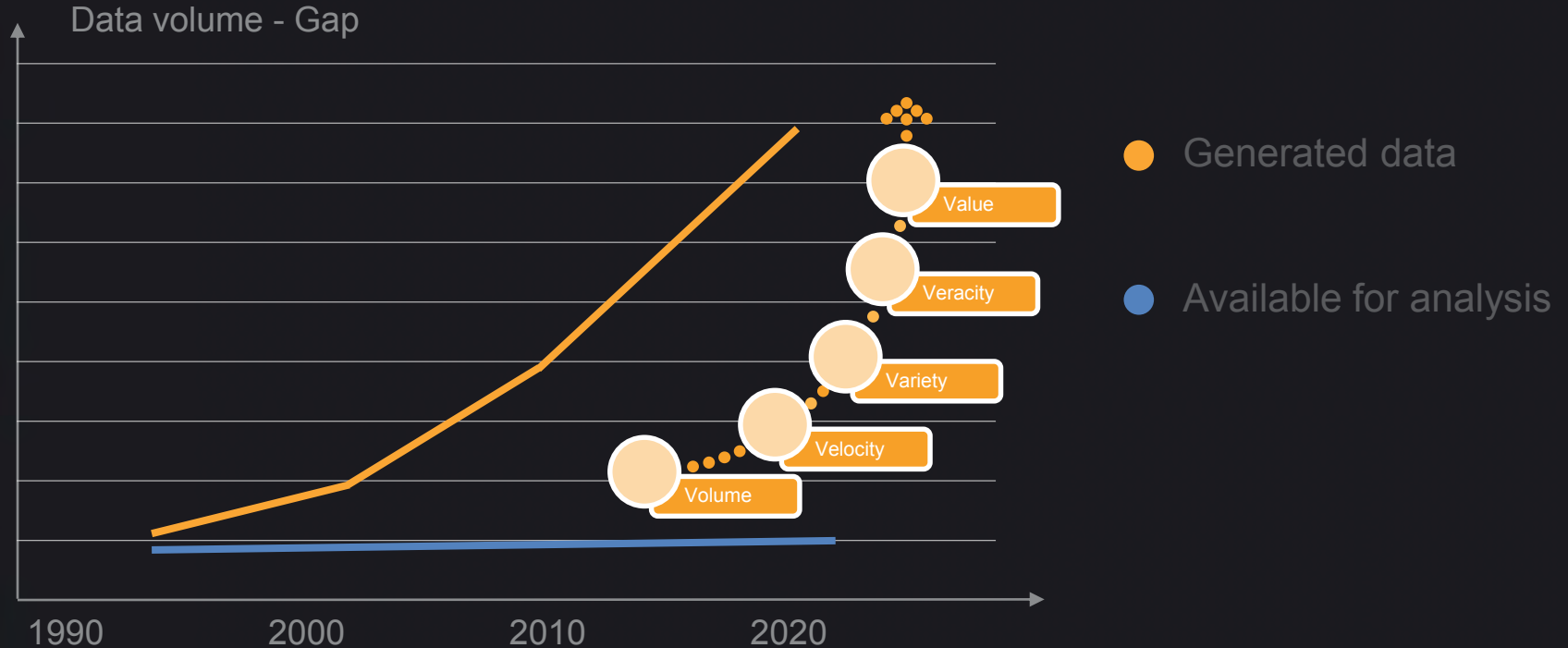
The image shows a screenshot of the Amazon.com homepage. A large, stylized yellow Transformer character (Optimus Prime) is overlaid on the page, with its hand pointing towards the 'Kindle DX' product. The page content includes:

- Navigation:** Search bar, account name 'Hello, Matthew', and a shopping cart icon.
- Product Recommendations:**
 - Kindle DX:** Promoted from \$114 to \$139 with free 3G-Wi-Fi. Also available for \$379.
 - Kindle DX:** Another listing for the device.
 - Kindle DX:** A third listing for the device.
 - Kindle DX:** A fourth listing for the device.
 - Kindle DX:** A fifth listing for the device.
 - Kindle DX:** A sixth listing for the device.
 - Kindle DX:** A seventh listing for the device.
 - Kindle DX:** An eighth listing for the device.
 - Kindle DX:** A ninth listing for the device.
 - Kindle DX:** A tenth listing for the device.
- Books:** 'A Grammar of Biblical Hebrew: 2.' by Paul Joyn, T. Muroski. 'Genesis: Hebrew grammar' by Wilhelm Gesenius. 'BIBLICAL HEBREW SYNTAX' by Bruce K. Waltke, M. O'Connor. 'An Introduction to Biblical Hebrew and Aramaic' by Ludwig Koehler, L. Koehler. 'A Grammatical Analysis of the Hebrew and Aramaic' by Maximilian Zerwick, May Oppenheimer.
- Transformers:** 'Transformers Classics Volume 1 TP' by Bob Budansky, Bill Mantlo. 'Green Lantern Ryan Reynolds, Blake Lively' by Martin. 'Batman: Year One' by Brian. 'Angry Birds (Ad-Free) Rovio Mobile' for \$0.99. 'Transformers: The IDW Collection...' by Shane McCarthy, Simon Furman, Mike.
- Other:** 'The Amazon Clothing Store: FALL Style Guide', 'Microsoft Touch Mouse', 'Sell Back Your Copy', 'More Items to Consider', 'Best Sellers'.

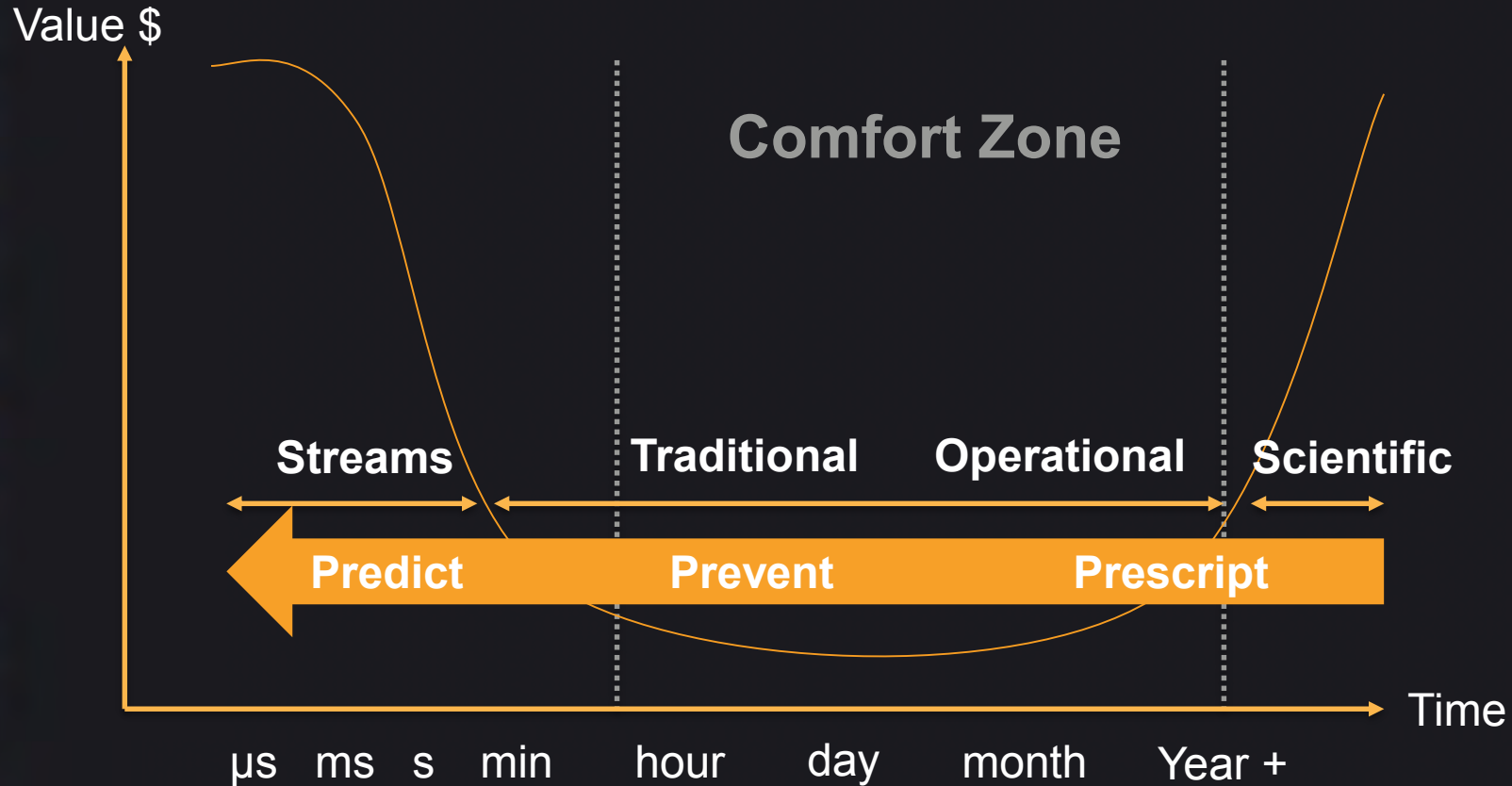
What does it take to be data driven?



A Growing Gap



Extracting the value of the data



Big Data is Breaking the Old Tools



Lower cost,
higher throughput



Generation



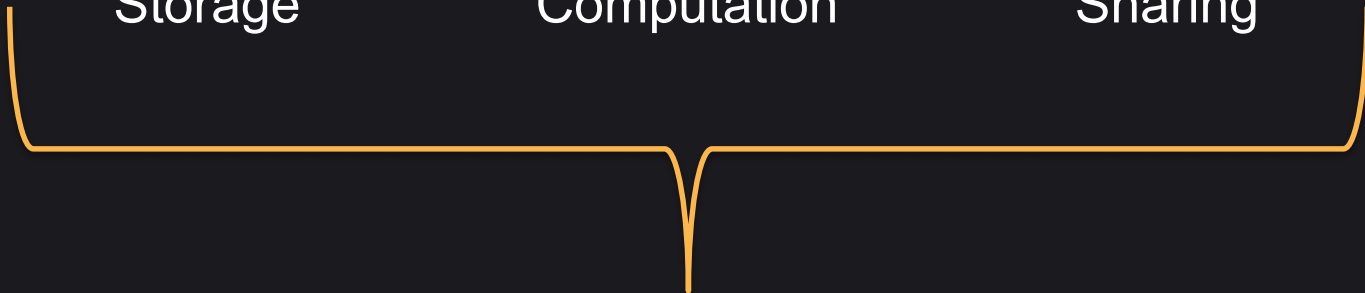
**Collection &
Storage**



**Analytics &
Computation**



**Collaboration &
Sharing**



Highly constrained



Elastic and highly scalable

+

No upfront capital expense

+

Only pay for what you use

+

Available on-demand

=

Remove constraints

AWS Big Data Portfolio

Collect



Direct Connect



Kinesis Firehose



Import Export (SnowBall)



Kinesis (Streams)



Database Migration

Store



S3



RDS, Aurora



Glacier



DynamoDB



CloudSearch



ElasticSearch

Analyze



EMR (Hadoop)



Machine Learning



Redshift (DWH)



QuickSight



SQL over Streams



Data Pipeline



TRANSFORMATION
is treating Data as a

Production Asset
as **Capital**

Many Thousands of Companies Use AWS for Big Data

NOKIA

NETFLIX

NASDAQ OMX

 PHILIPS



 AUTODESK



 Adobe

amazon

AMGEN

 Expedia

 MERCK



Kellogg's

AON

HEARST

Aol.

ThermoFisher
SCIENTIFIC

Johnson & Johnson

vivaki 

FINRA Performs Daily Petabyte-Scale Analysis on Trading Data Using AWS



We chose AWS to deliver innovation at a much larger scale and much faster to our core business.

Saman Michael Far
Sr. Vice President of Technology



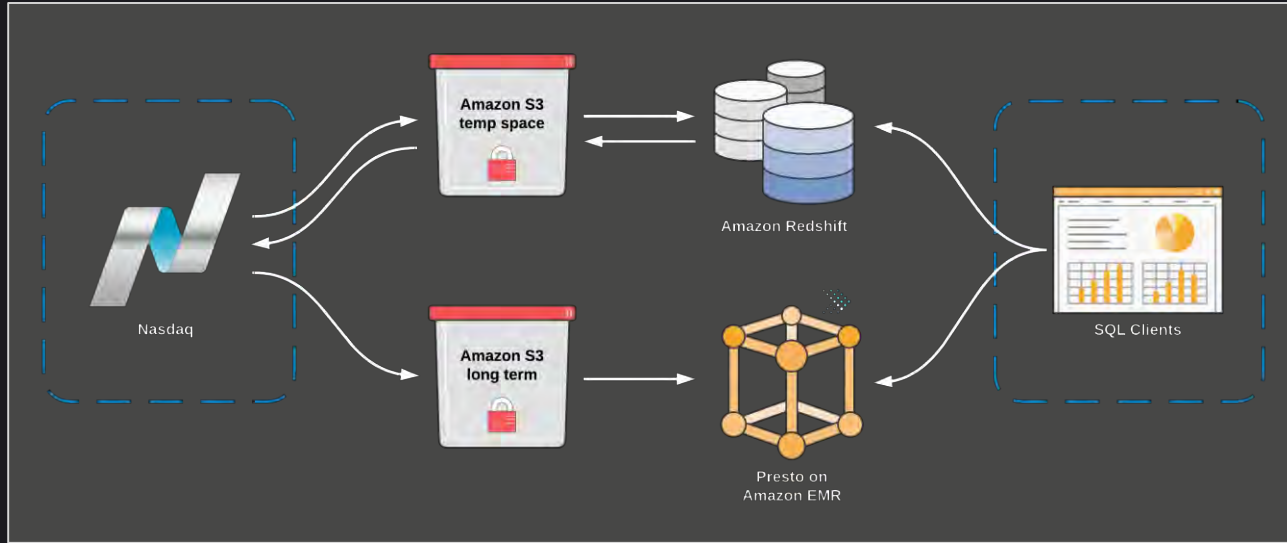
- Wanted a platform to provide greater speed and scalability for analyzing petabyte-scale data
- Migrating mission-critical operations to AWS
- Can provide analysts with real-time access to 75 billion records collected daily
- Can move faster, more efficiently in serving core business processes

The Financial Industry Regulatory Authority (FINRA) is the largest independent regulatory authority in the United States. It is based in Washington, D.C.



World's leading online travel company, with a portfolio that includes more than 150 travel sites in 70 countries.

A screenshot of the Expedia website's search interface. The page features a dark blue header with the Expedia logo on the left and navigation links like "Account", "My Scratchpad", "My Trips", "Support", "Español", and "简体中文" on the right. Below the header is a navigation bar with "Home" highlighted and other options like "Bundle Deals", "Hotels", "Cars", "Flights", "Cruises", "Things to Do", "Deals", "Rewards", and "Mobile". A main search area has a background image of a tropical beach at sunset. It contains several tabs: "Flights", "Hotels", "Bundle Deals" (which is selected), "Cars", "Cruises", and "Things to Do". Underneath these are sub-tabs for "Flight + Hotel", "Flight + Hotel + Car", "Flight + Car", and "Hotel + Car". The search form includes fields for "Flying from" and "Flying to" (both labeled "City or airport"), "Departing" and "Returning" dates (format "mm/dd/yyyy"), "Rooms" (1), "Adults (18+)" (2), and "Children (0-17)" (0). There is a checkbox for "I only need a hotel for part of my stay" and a link for "Advanced options". At the bottom, a dropdown menu shows "Economy/Coach" selected.



Migrated off legacy DW to Redshift (start to finish) in 7 man-months

Redshift costs 43% of legacy DW for the same data set (legacy DW cost \$1.2M/ year)

Tuned queries now running faster in Redshift than on legacy system



TRANSFORMATION underpinned by Big Data

Join me on next session
for the **DISRUPTION** recipe