

How Data Influences the world

- In 1962, John W. Tukey wrote in *The Future of Data Analysis*, “data analysis and the parts of statistics which adhere to it, must take on the characteristics of science. Data analysis is intrinsically an empirical science.”
- Since then, the exploration and analysis of data has evolved through multiple paradigms. In the modern day, AI cognitive analysis, machine learning predictive modeling, and data science are commonly heard jargons in the world of IT.
- The amount of data produced everyday, **2.5 quintillion** bytes, is truly mind boggling. This pace is accelerating with the growth of internet of things (IoT). 90% of data circulating the world today has been created in last 4 years alone.
- What contributes such a massive exchange & collection of data? It is digital transformation of data and adoption of our lifestyle to modern technology trends.
 - More than 3.7 billion humans use the internet.
 - On an average, Google processes more than 40,000 searches every second (3.5 billion searches a day).
 - Every minute of the day,
 - 527,760 photos are shared via Snapchat.
 - Users watch 4,146,600 YouTube videos.
 - 46,740 photos are posted in Instagram.
 - 510,000 comments posted and 293,000 statuses are updated in Facebook.
- Data has become the key commodity to the modern global economy.



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Why Data is the new commodity in the global economy?

- Every economic era has its engine of growth—from the Stone Age to the Industrial Revolution, the latter of which relied heavily on coal to transform manufacturing processes.
- Today, while oil currently drives economic growth, it is data that fuels corporations and helps them to predict and take informed decisions.
- A fascinating development is that corporations will no longer rely on standard data mining reports drawn by business analysts to predict future trends, instead relying on data scientists to tap into gargantuan processing power offered via big data cloud platforms to identify previously unknown patterns in datasets, providing recommendations and predicting the next best action (NBA).
- A bank or mortgage company can purchase data from Google and predict an individual's search pattern and promote their loan products to that individual to increase their selling propensity.
- A consulting company can buy publicly available 3rd party data sets from vendors such as Dow Jones' Factiva and run their ML model to find signals of future M&A transactions or divestiture and render their M&A service to the fit buyer companies.
- Social media data are purchased and processed through natural language processing (NLP) features of Python or R to identify hot discussions. The NLP output are used by product companies to enhance or completely alter their products to the social discussions. This brings successful adoption rate and increase in sales numbers.
- Smartphone users every movements are captured, with their behavioral patterns analyzed and sold to business entities for promotional purposes.



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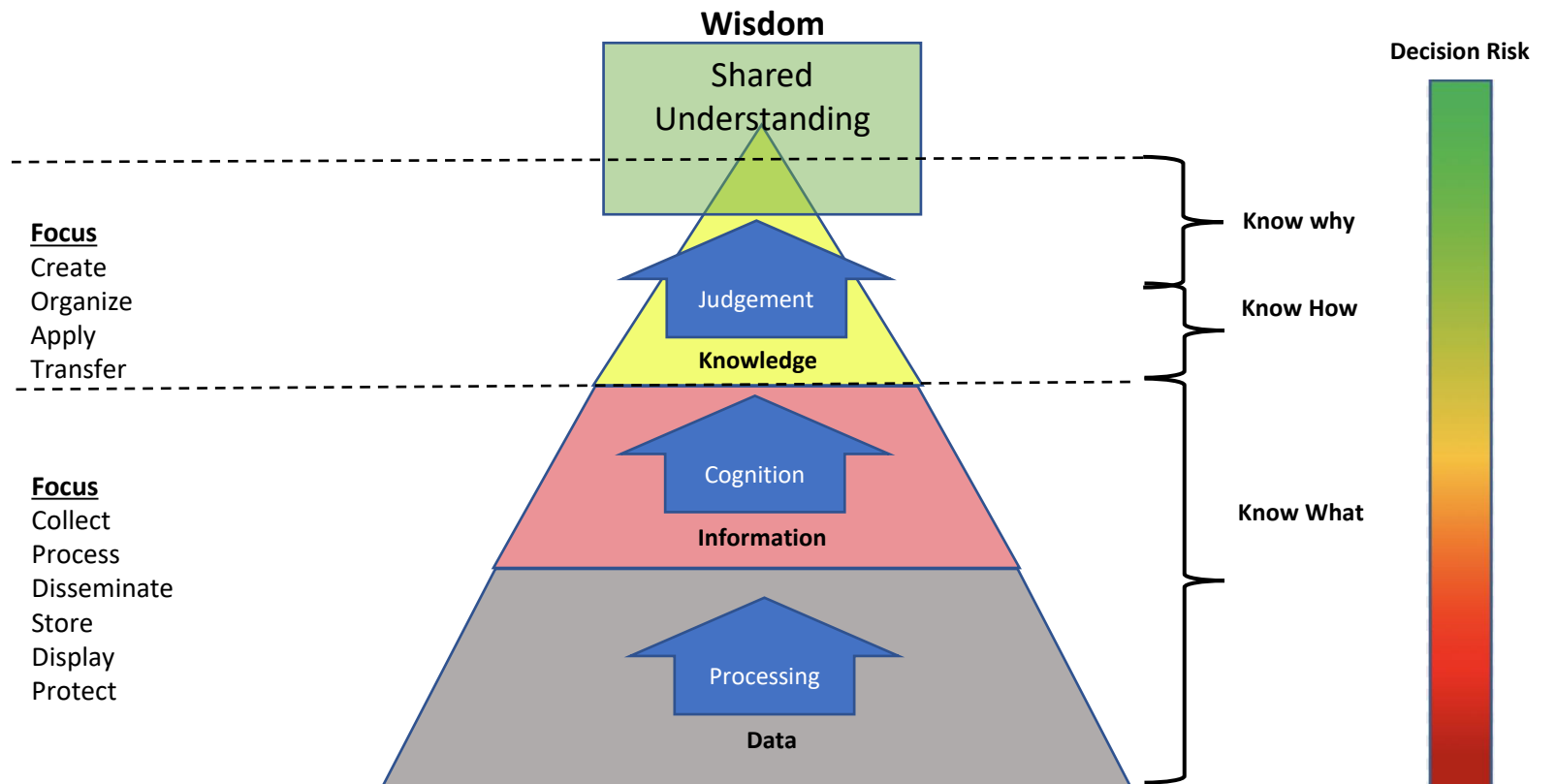




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Knowledge Management Cognitive Pyramid



Above Pyramid clearly indicates the functional relationship of data, showing how data is transformed into functional information and then information becomes judgmental knowledge supporting a decision-making process.

Why Data, Hard Facts, and Numbers Influence the World

- Through the effective use of well-obtained, relevant data, companies can make informed decisions as to planning their future operations and budgeting their resources.
- ***Dow Jones Factiva is a classic example*** of how corporations can subscribe to Factiva and find actionable insights to enhance their business.
- Data is influencing every aspect of industry, with its importance not only understood in Wall Street boardrooms, but even in professional sports, for example, where data is used to identify players (in soccer for example) who create the most chances, have the highest goals-to-minutes ratios, play the most balls, complete the most passes, and make the most interceptions to name a few, and even to identify based on a player's history how likely he/she is to suffer from an injury, and even what kind of injury.
- Essentially, any information that can be quantified, is used to identify talent, procure valuable information, and, in general, make informed decisions – across all industries. And now, even non-quantifiable information, such as news articles, and even social media posts, are scraped using NLP methods to obtain trending keywords and other valuable information that can be used as positive or negative indicators of a company's direction, and how they should approach future decisions.
- For centuries, people have been trying to “predict” the future, seeking the insight of fortune tellers and looking to nature in analysis of possible omens. Now, for the first time, though restricted to a confidence interval and degree of accuracy, the future *can* be predicted, using relevant, well-collected data.



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Citations

- [Forbes](#)
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