Under the Surface of Analytics

"It isn't always the complexity that gets you – often it's the subtlety"

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Amazingly, this one made it back. But where would you strengthen it for future missions?

Reinforce the areas where the World War II bomber sustained the most damage?

The best option was to strengthen the areas where the returning planes had NOT been hit

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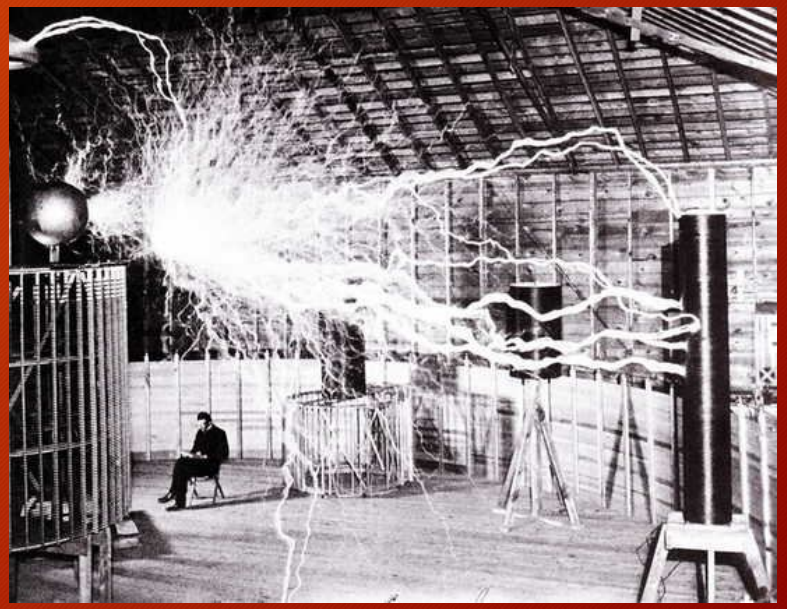
Analytics Bandwagon Rumbles On

DATA – Collect enough of that and the rest will follow.



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Data? Why are there Classifications?

- In essence, data is just people doing stuff
- One of the reasons Data is “classified” involves the activities required to manage and analyze the resources that are involved in generating value from it
- In its crude form, data provides little value.

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Data?

- For most businesses, it's about extracting insights to create value that has the potential to drive innovation to improve products and services

- More companies are shifting their focus from traditional business intelligence (BI) to predictive analytics – using historical data to predict future events by identifying and exploiting patterns

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BIG DATA IS EXCITING – BUT . . .

"SMALL DATA" that already exists within your organization is extremely powerful when used wisely

- Small data is collected with an intended purpose for analysis
- Small data is a sample that is predefined and collected to answer the problem at hand
- Small data is ready and conditioned for analysis once collected

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BIG DATA TSUNAMI

90% of the world's data has been created in the last two years

Big Data may mean more information, but it also means more false information

"Information is not knowledge" – Albert Einstein

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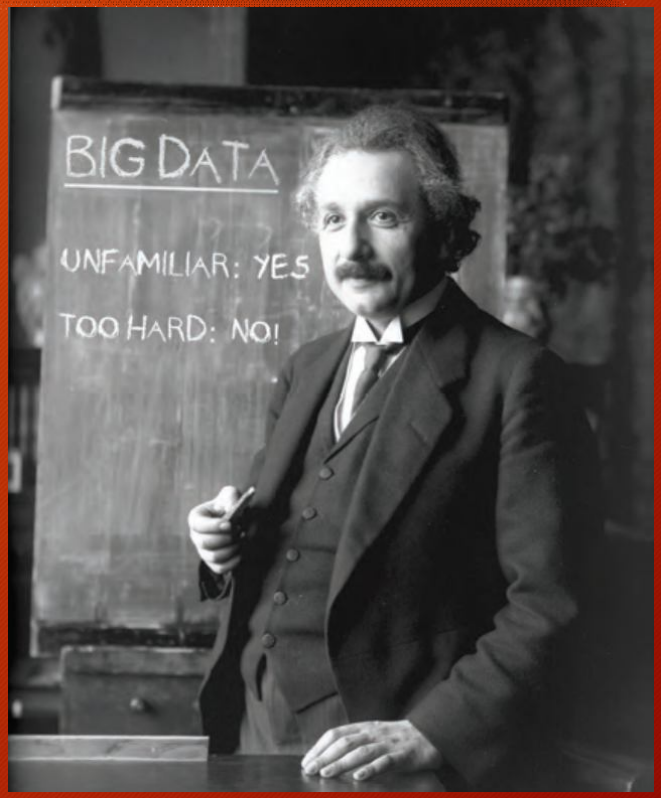
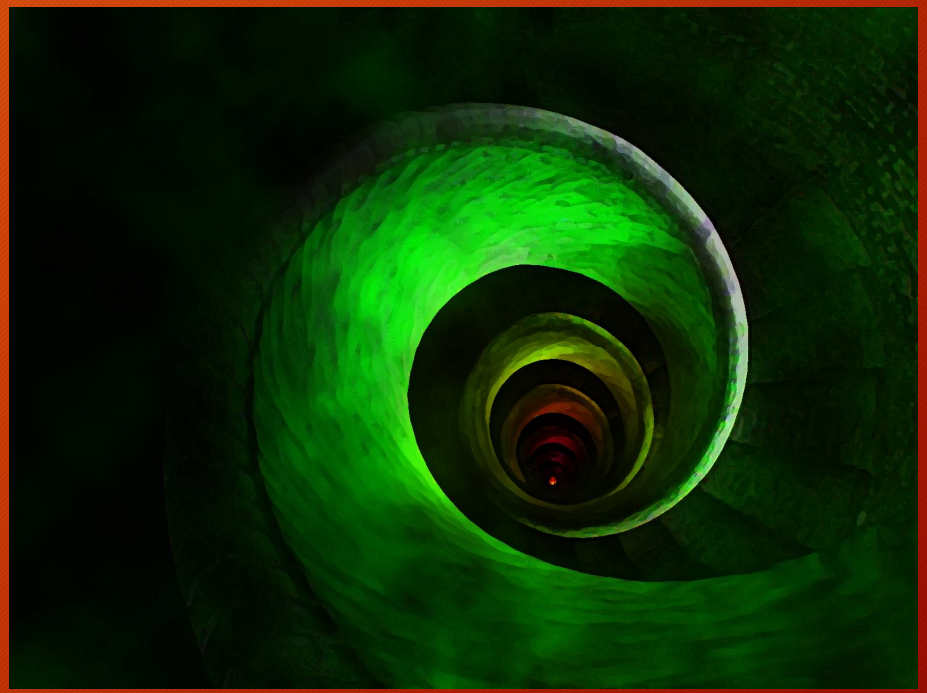


Down a ‘Rabbit Hole’

Use “BIG DATA” to help you find what is real, not to prove points, and you will find it powerful in improving strategic and operational decisions



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Down a ‘Rabbit Hole’

- Big Data does not have an intended purpose other than data mining
- Big Data takes a long time to clean and process
- Big Data allows businesses to assess emerging trends, identify correlations and take meaningful actions

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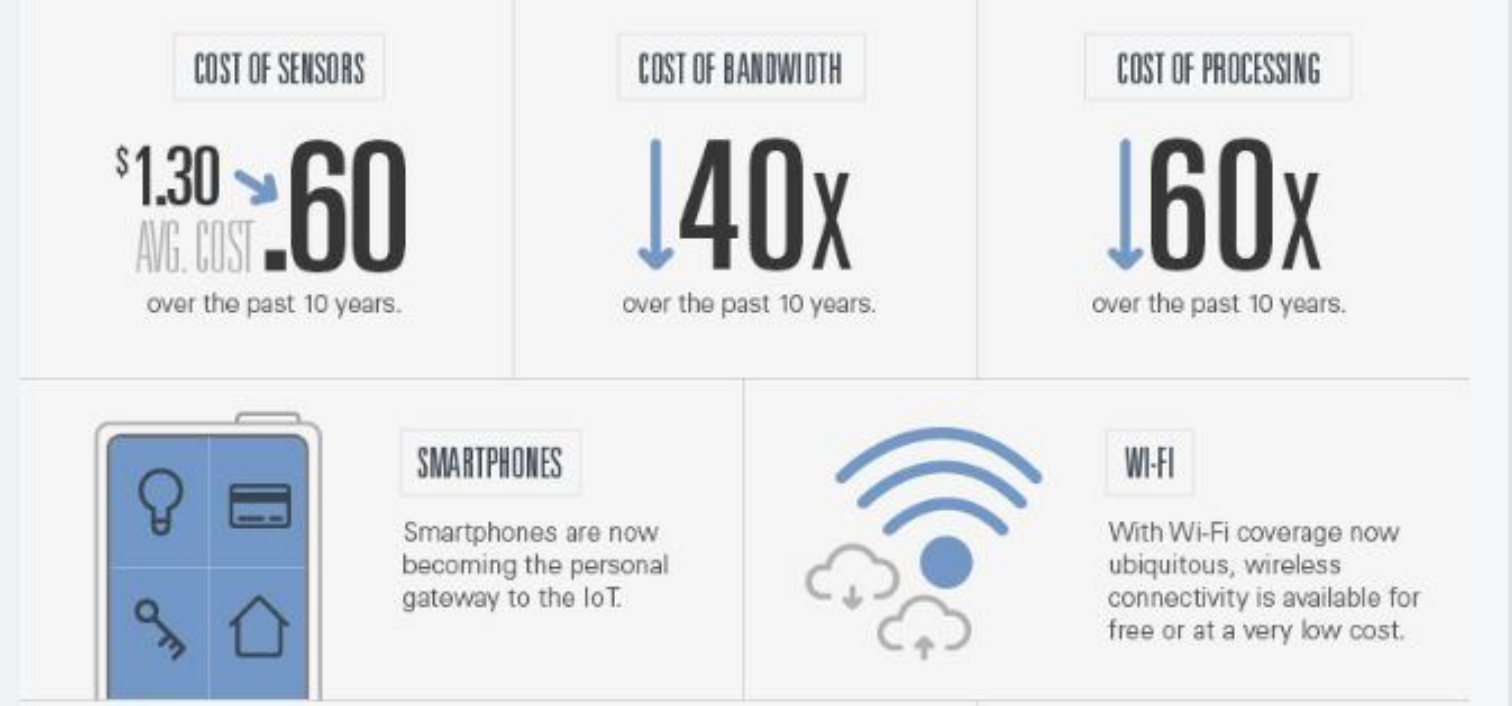
How did we get here?



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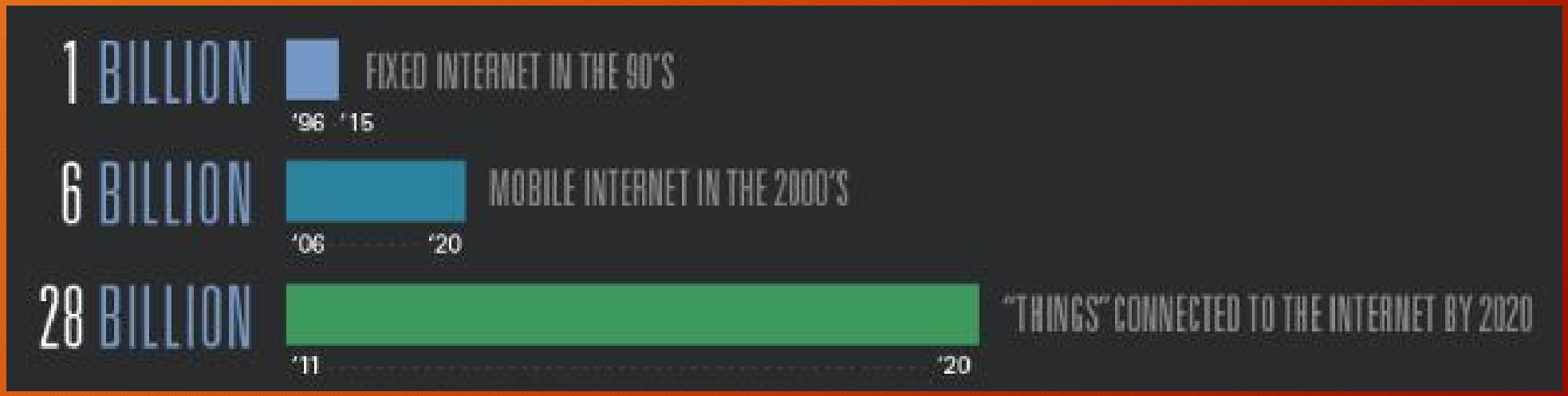
“Things” Connected to the Internet



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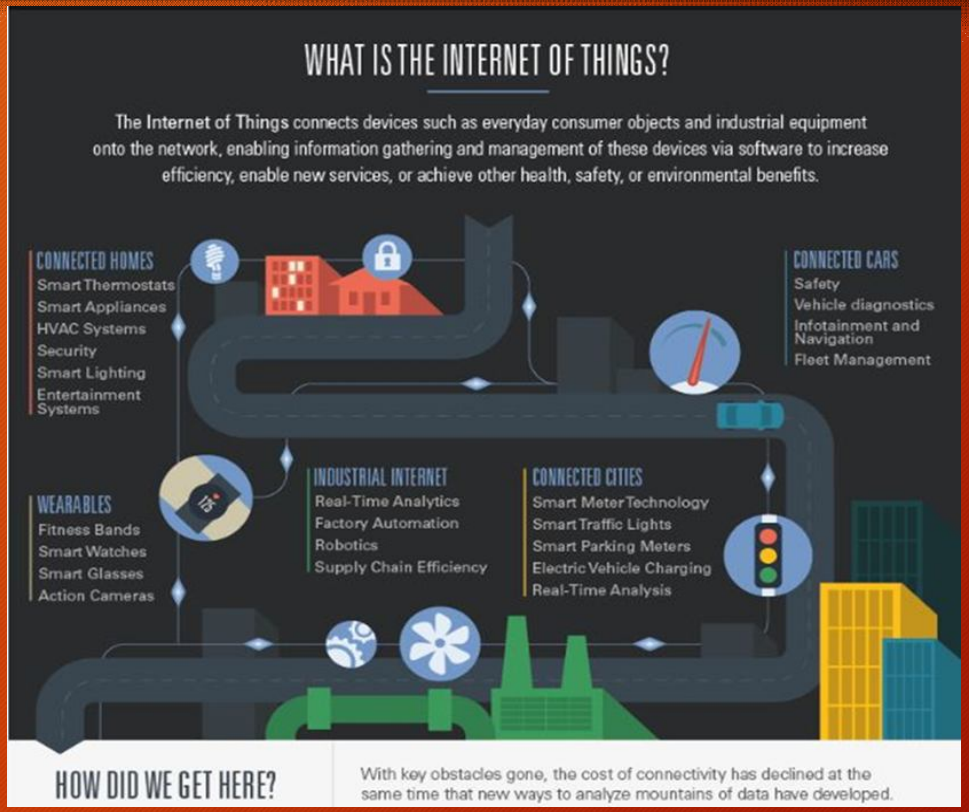

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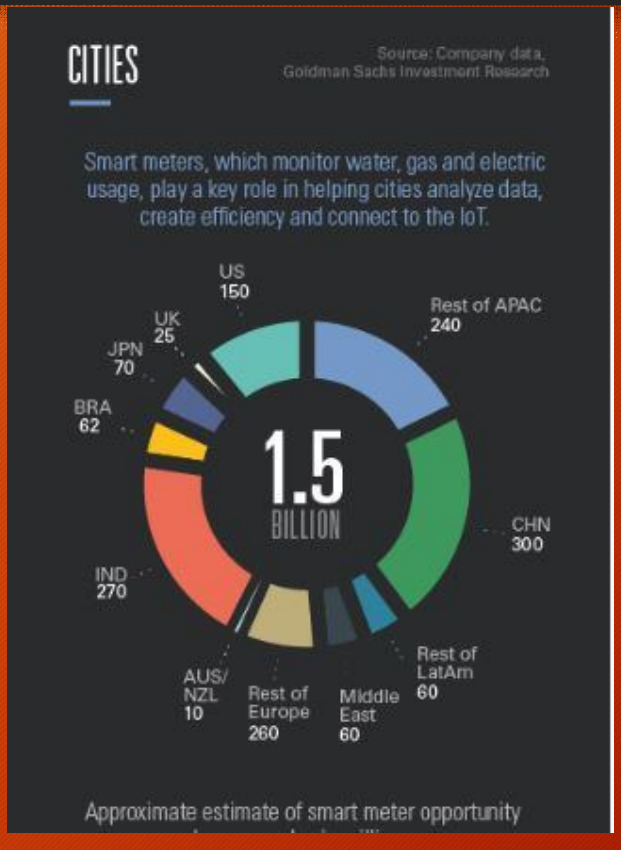
Smart Meters Connected to the IoT



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What is analytics?

The processing of measurement data in order to generate a greater level of insight into, or understanding of, the process or ‘thing’ being measured than could be obtained from the individual data points.

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Structured Analytics Plan

- Identify, characterize and prioritize the most important problems

- The design analytics systems that squeeze the most additional insight or knowledge from the data, to deliver the biggest impact on solving those problems

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Structured Analytics Model – Three Pillars

1. **Right Decision**
2. **Right Balance**
3. **Right Execution**

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Structured Analytics Model – Five Tiers

1. What Was
2. Why Was
3. What Now
4. Where Next
5. Where's Best

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Structured Analytics Model

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Structured Analytics Model

- the right people
- with the right skills
- and the right experience
- and give them the right tools
- to generate the right insight from the right data

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Focus on Business Objectives

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Focus on Business Objectives

- Don't collect data because you can, collect data because it's **necessary**
- Speak the right language to the right people as different stakeholders in business have different goals – Learn to translate your data into terms that's tailored for your audience

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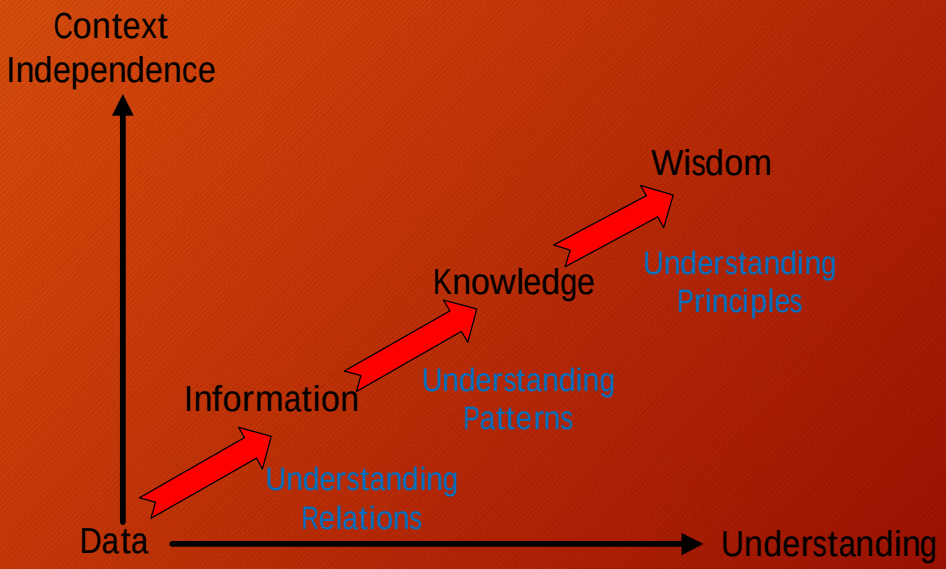
The Basis for Thought - Data to Wisdom

- A collection of data is not information
- A collection of information is not knowledge
- A collection of knowledge is not wisdom
- A collection of wisdom is not truth – *Neil Fleming, Coping with a Revolution*



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Questions?

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