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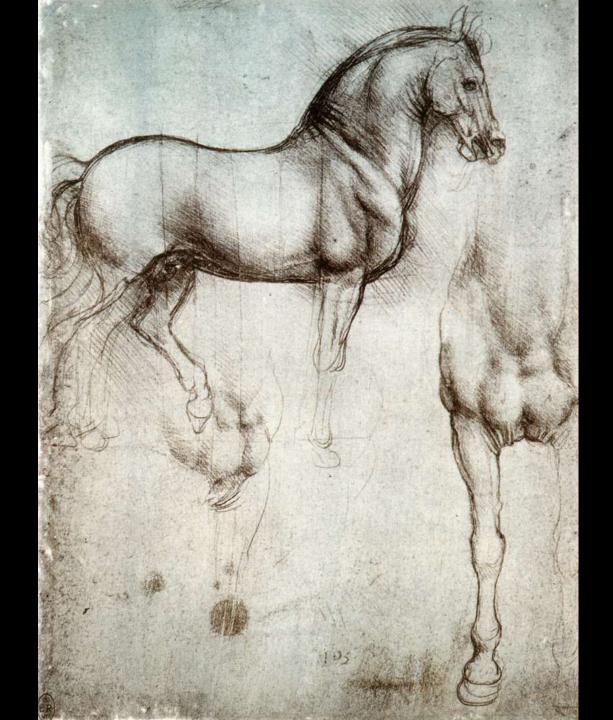
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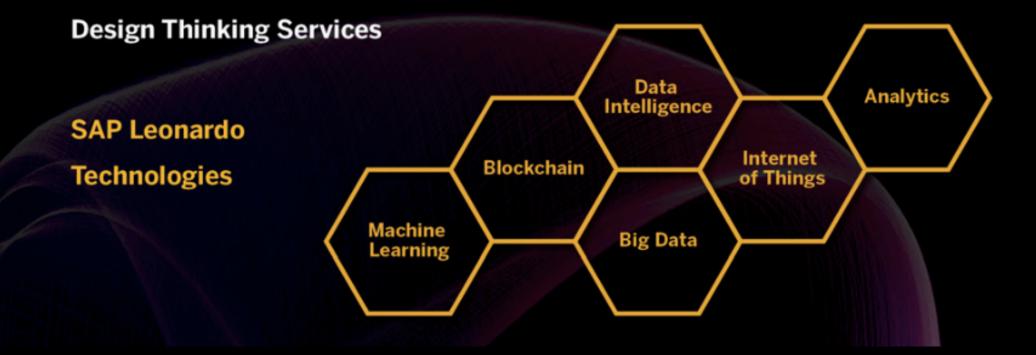
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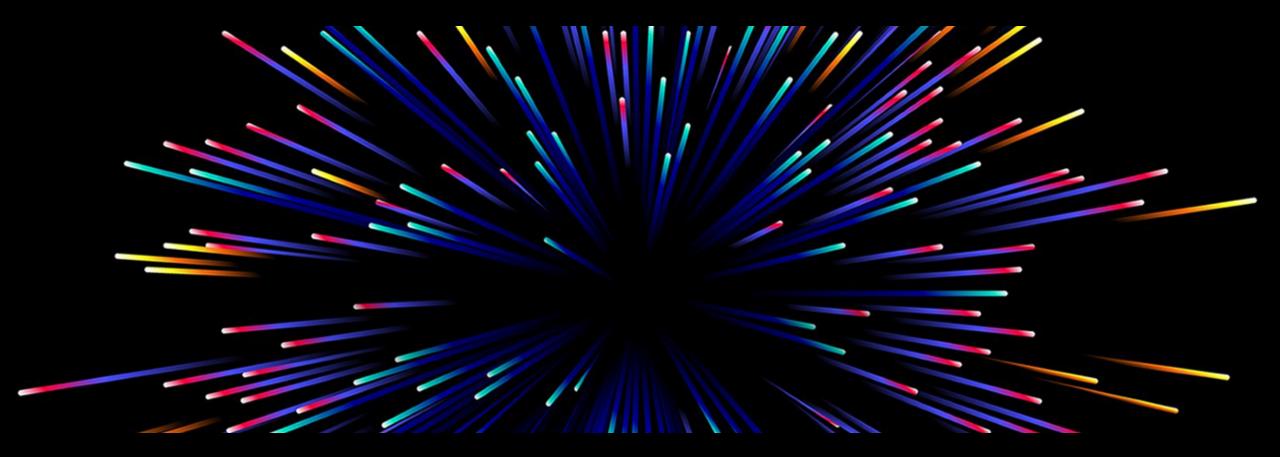
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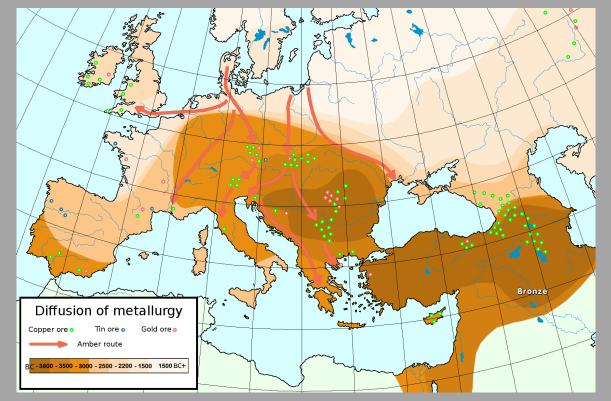






### Looking for a New Job?

## **Past is Prologue**



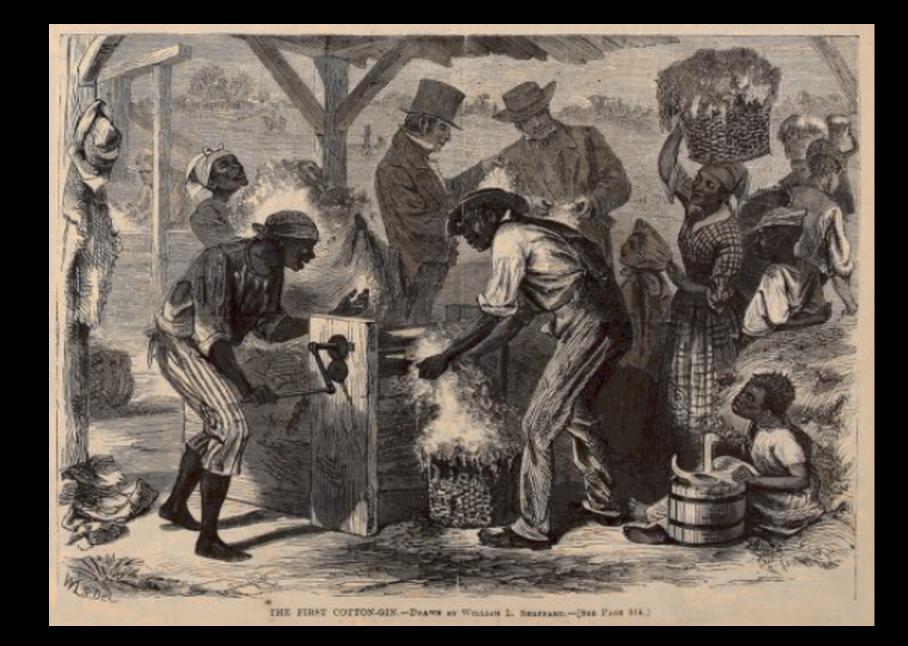
Hamelin de Guettelet



Augustin François Lemaître - Marie-Lan Nguyen (2013)



### Welcome to the Machine!





### Process Makes PERFECT

View of the Entrance to the Arsenal by Canaletto, 1732.

### **The Overwhelming Internet of Things**

- IoT will cause a data explosion
- Sheer volume will crash old models
- Humans cannot manage this manually
- Machine Learning can tame the beast
- But people must manage the systems
- Untrained ML will lead to chaos
- Measure thrice, cut once



### **The Silicon Age Enables Machine Learning**

Linear Regression **Logistic Regression Decision Tree** Support Vector Machine Naïve Bayes **K-Nearest Neighbors** K-Means **Random Forest Dimensionality Reduction Gradient Boosting** 





### **A Renaissance in Software Engineering**

You can't build skyscrapers with bricks and mortar!

A revolution in material science was required

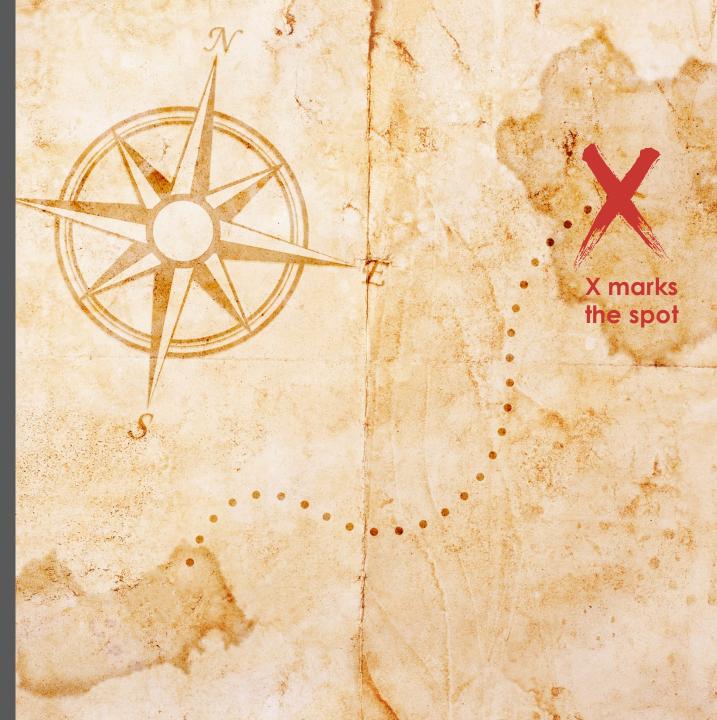
Architectural engineering entered a new era

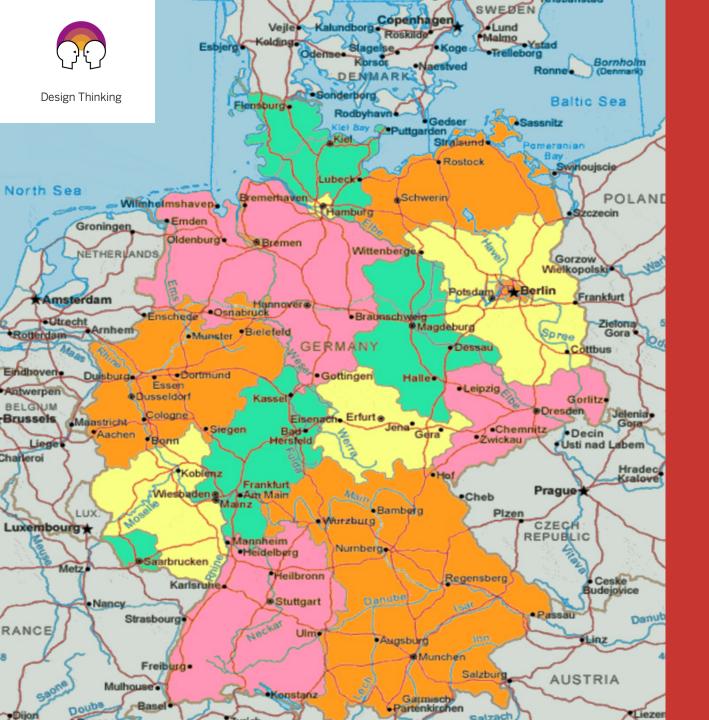
The same holds true now for software development:

- New solutions must be designed to work at-scale
- Traditional database technologies cannot support
- Old habits of ETL will die hard, but must give way
- The demands of IoT and Analytics require more
- Cloud platforms will rule the day soon; already?
- Machine Learning will help support this infrastructure

By Donaldytong – Burj Khalifa

### SAP Leonardo Accelerates the Journey to Your Business Business **DESTINATION**"





# Design Thinking is the "ROAD MAP"



# Cloud Platform is the "OPEN ROAD"

# Big Data is the "FUEL"



### Analytics is the "ROUTE YOU NEED TO TAKE"





### Data Intelligence is the "STREET SIGNS"

### IoT is the "THINGS, EVENTS, & PEOPLE THAT CONNECT THE JOURNEY"



# Machine Learning is the "SELF DRIVING CAR"

48

/Autonomous /Sensing /Communicat /Battery /Nevigation /Mirroriess /Sensing /Communication /Battery /Navigation /Mirrorless /Ecology

100m



Machine Learning

### Blockchain is like your "CAR TRUNK"





### SAP Leonardo Brings it All Together

### Trenitalia: Digital Transformation through IoT Technology

Anticipating events and maintenance operations Reducing errors and maintenance costs, improving processes

Improving customer travel experience



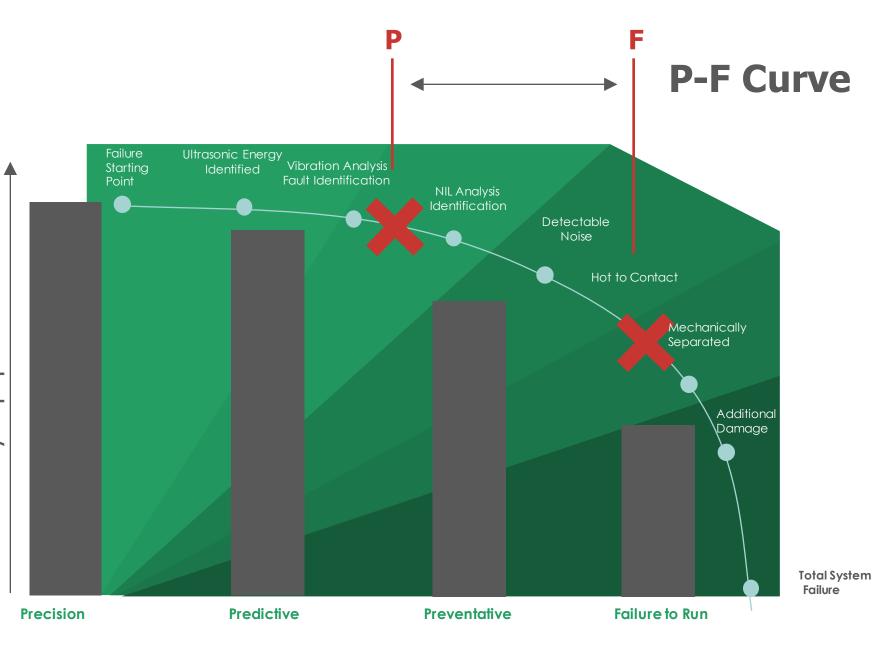




Maintenance cost: Reduced

8-10%

### **Big Data, IoT, Machine Learning** & Analytics Railway Equipment **Empowered** Condition of Maintenance



## **Know Your Customer!**

- In many countries, it's the law!
- Excellent for all customer service practices
- Save time, money and resources for marketing
- Machine Learning can deliver the ~360-degree view
- Highly valuable in pharmaceutical industry
- Great for 'Next Best Offer' solutions
- Useful in customer-facing situations at point-of-sale
- Helpful with call centers to keep customers happy







