

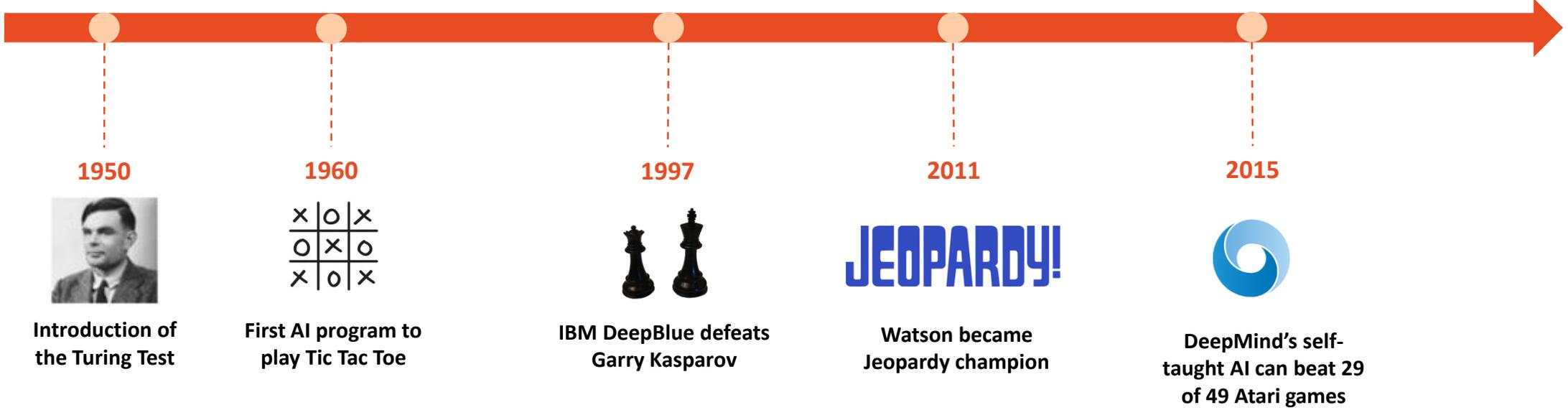


# THE SPRING OF AI IN TELECOM



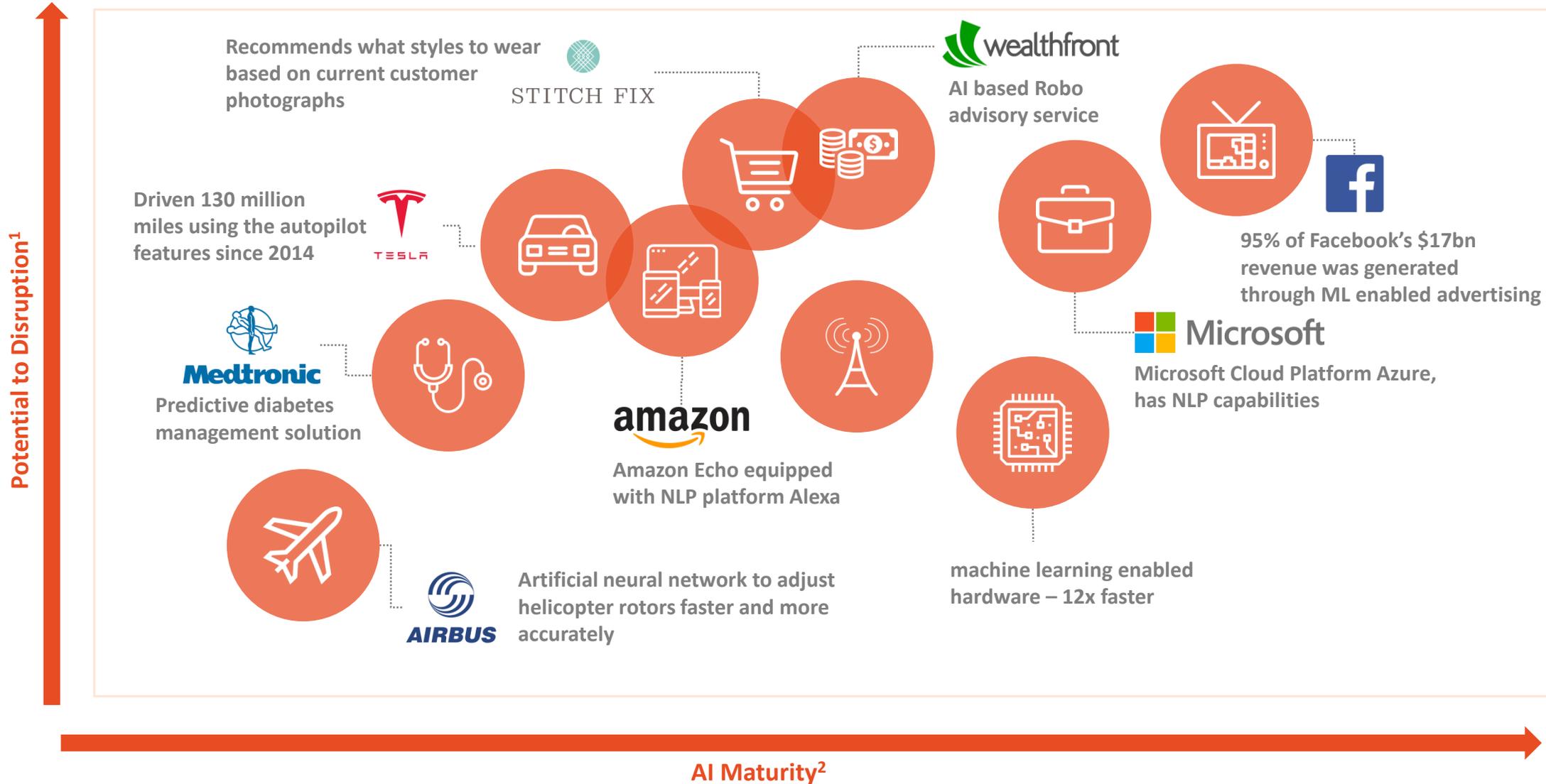
**Dr. Santanu Bhattacharya**  
**Chief Data Scientist, Airtel**

# Convergence of innovations is moving AI forward rapidly



<b>Cost of Computing</b>	<b>\$200</b> Per million transistors	<b>\$50</b> Per million transistors	<b>\$0.05</b> Per million transistors
<b>Data Platforms</b>	<b>RDBMS</b>	<b>OLAP</b>	<b>Big Data Platforms</b> HDFS
<b>Better Algorithms</b>	<b>Logic Theorems</b> Single layer learning, Perceptron, Adaline	<b>Neural networks</b> Multi-layer back propagation	<b>Deep Learning</b> Convolved Neural Network

# ...disrupting all industry verticals

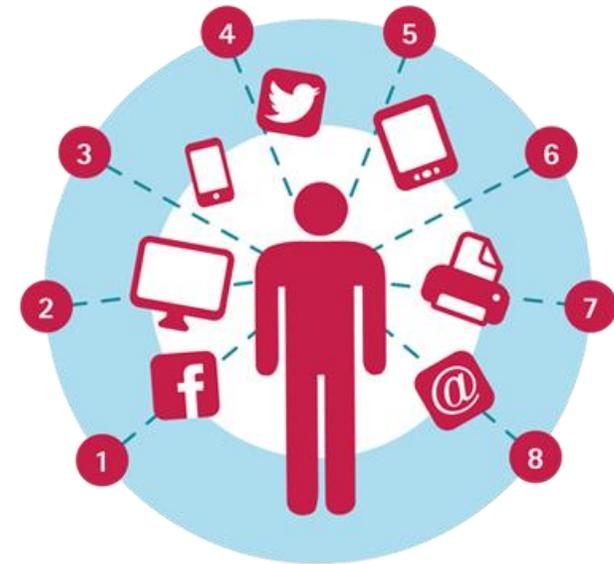


# Digital Disruption is shifting the power to Consumers

Asset/Products “Out”



(Digital) Consumer In



# Consumer choice is Omnichannel and Personalized

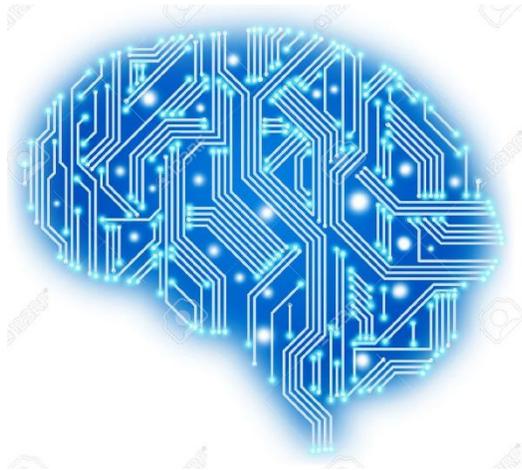
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**Personalization**



**Omnichannel**



**Data & AI**

# Telcos, late in the game, are responding ..

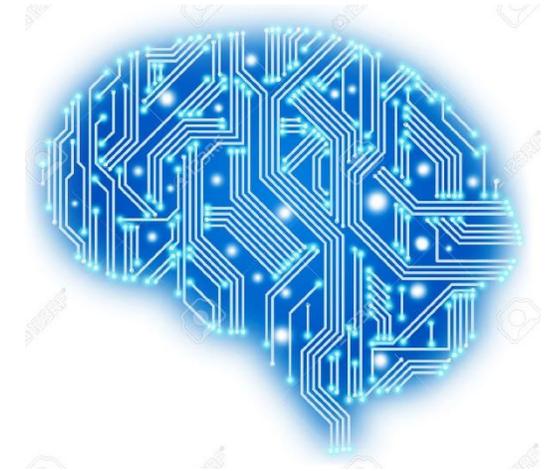
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**Customer 360**



**Live, Work and Play**



**Intelligent Network**

# Top Challenges

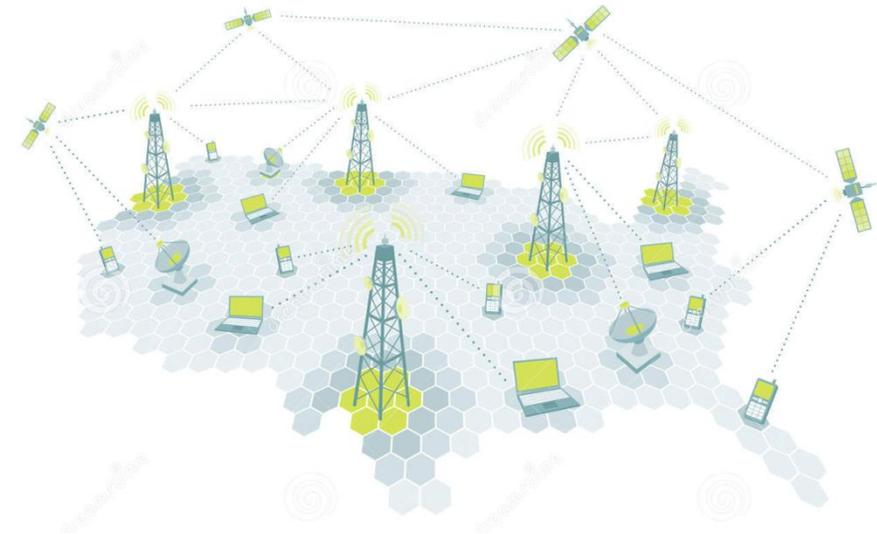
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- 360 views
- Support



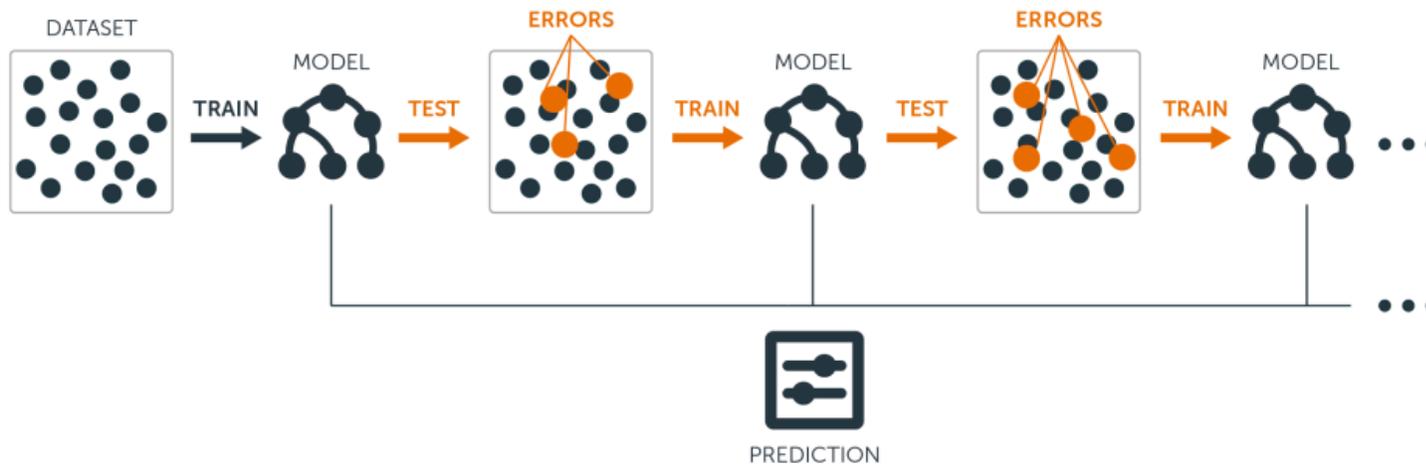
- “Live, Work & Play”
- Recommendations



- Planning
- 5G, self optimized

# Example: User Propensity to Upgrade or Churn

- Input: 70+ signals from customers, device and network
- Output: Propensity to upgrade or churn

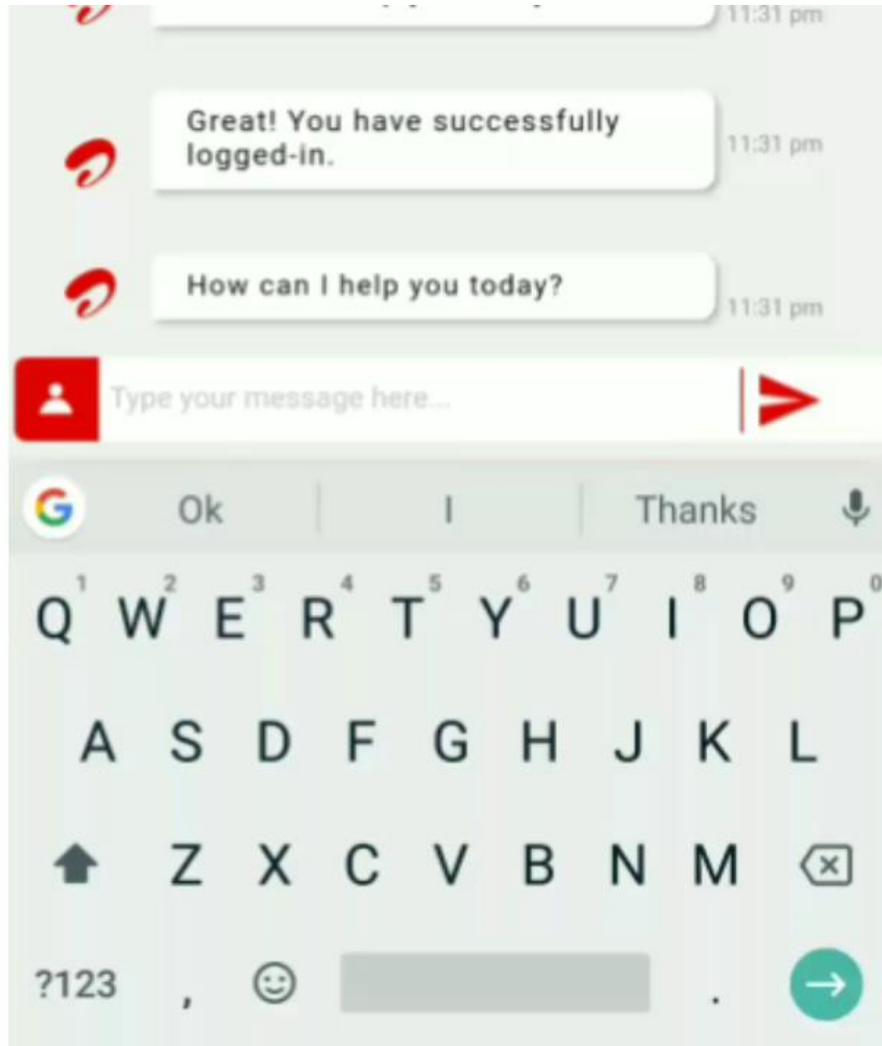


**10<sup>21</sup>**  
Combinations

- Compute: 1,000 iteration, trillions or computes for better accuracy

# Example: Chatbot for Customer Support

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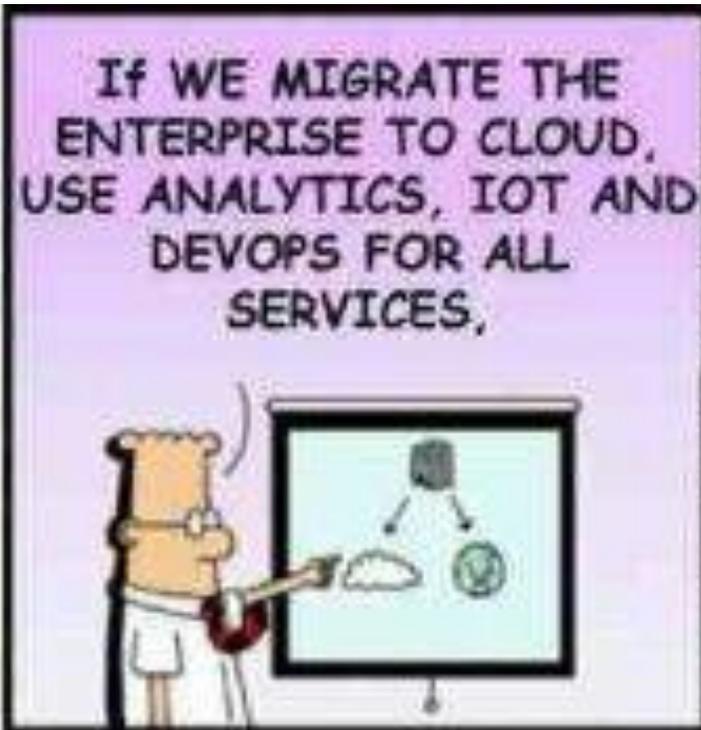
Hindi, English and Hinglish today!

Next: Vernacular, Voice!

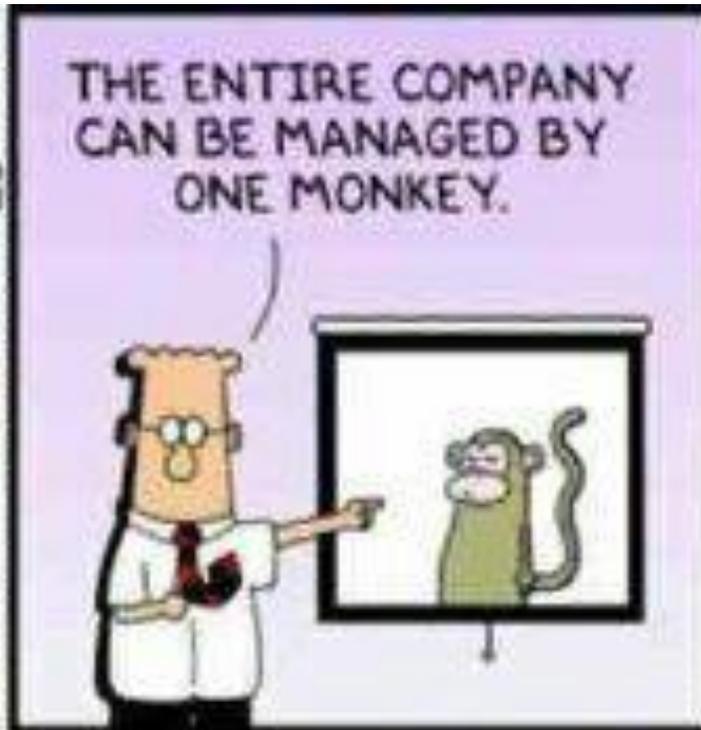
# Key to Success

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- Big Data and AI
- “Customer In” Focus
- Real time, multi-channel reach
- Smart networks
- Innovation culture



Dilbert.com DilbertCartoonist@gmail.com



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