



BIG, OPERATIONAL, LEARNING AND LEDGERS: THE FUTURE OF DATA

Presentation subhead

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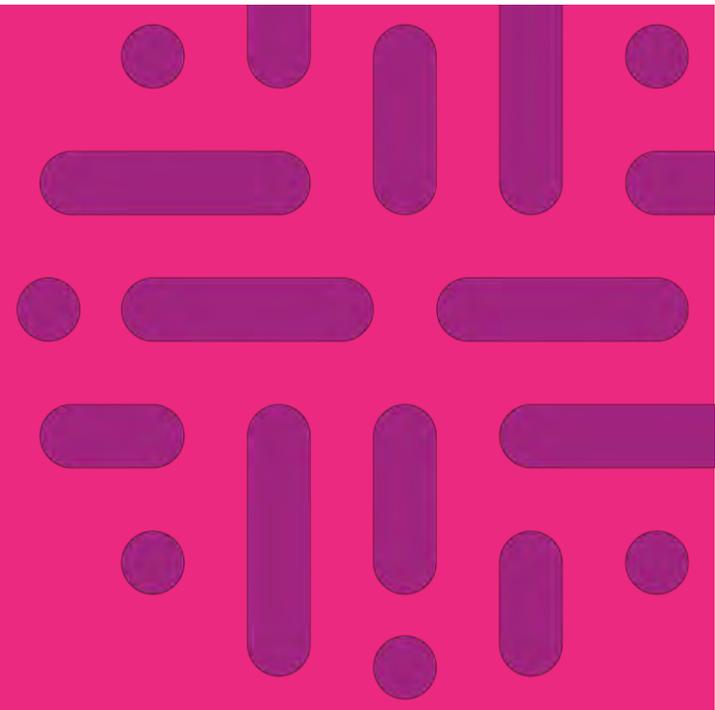
Data in 2019

- Artificial intelligence (AI) opens up a new frontier for digital business. This is because virtually every application, service and Internet of Things (IoT) object incorporates an intelligent aspect to automate or augment application processes or human activities.
- The way we perceive and interact with technology is undergoing a radical transformation. Conversational platforms, augmented reality, virtual reality and mixed reality will provide more natural and immersive ambient experience within the digital world.
- Digital representations of things and organizational processes are increasingly used to monitor, analyze and control real-world environments. These digital twins combined with AI and immersive experiences set the stage for open, connected and coordinated smart spaces.

Top 10 Strategic Technology Trends for 2019 Published: 15 October 2018 ID: G00374252



BIG



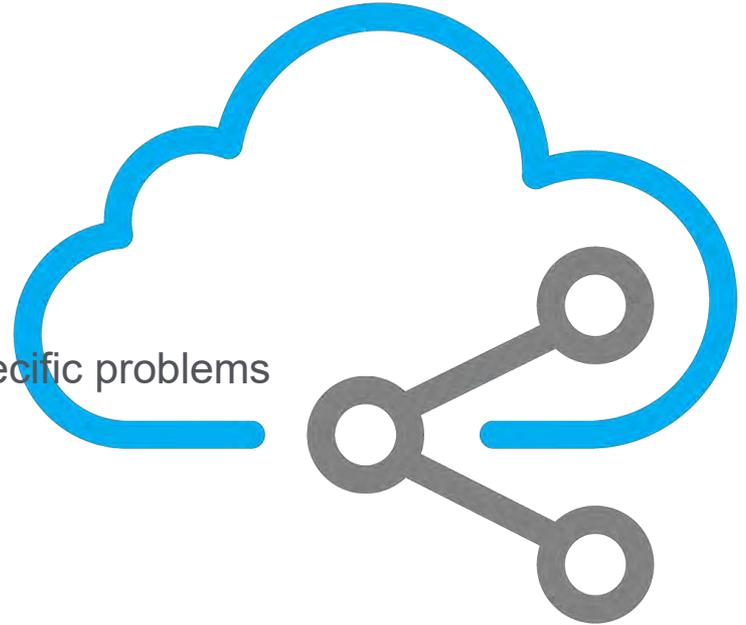
Big data is moving to the cloud

Cloud today

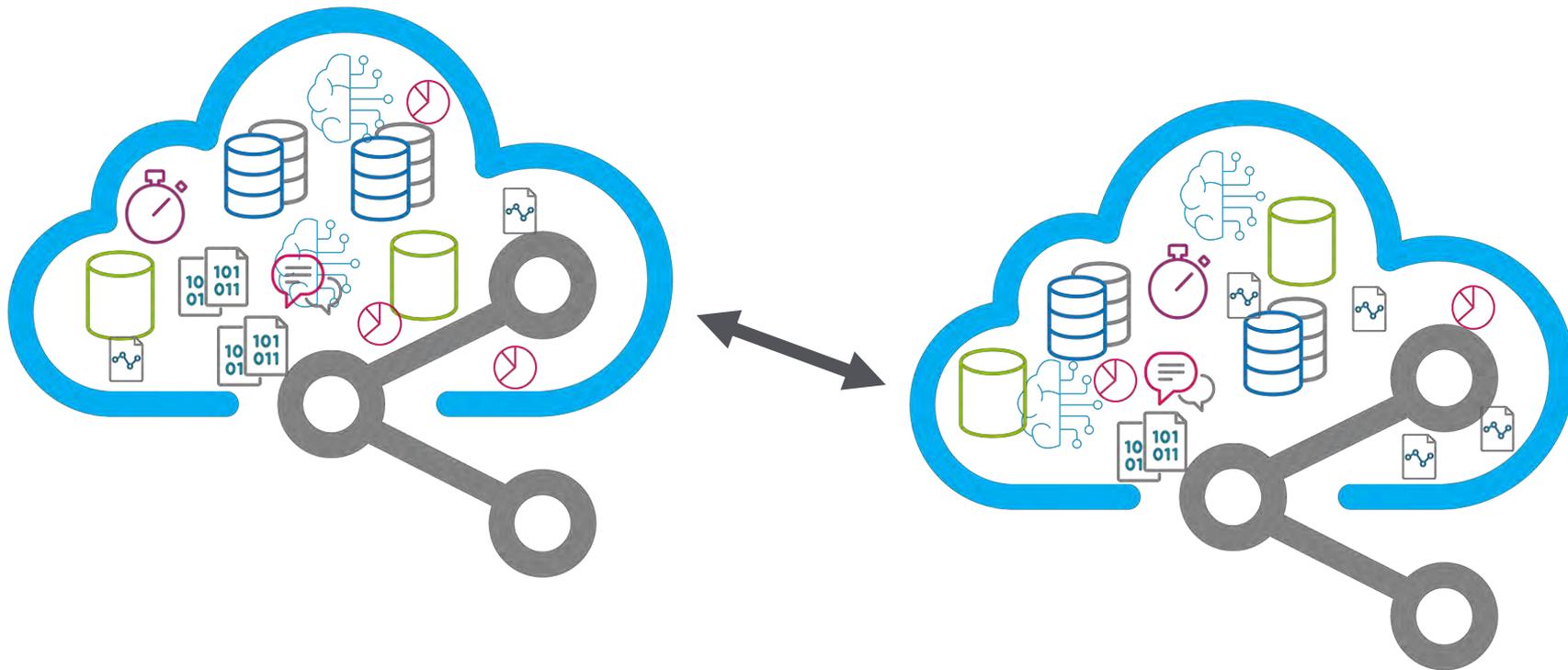
- Increasing at 35% per year
- Cloud storage increases dynamism
- Move to serverless
- Multiple data formats

Cloud tomorrow

- Databases chosen for price-performance on specific problems
- AI service proximity
- Operational system proximity/cost
- Cloud service layering



The Future Cloud



Its all a hybrid



OPERATIONAL

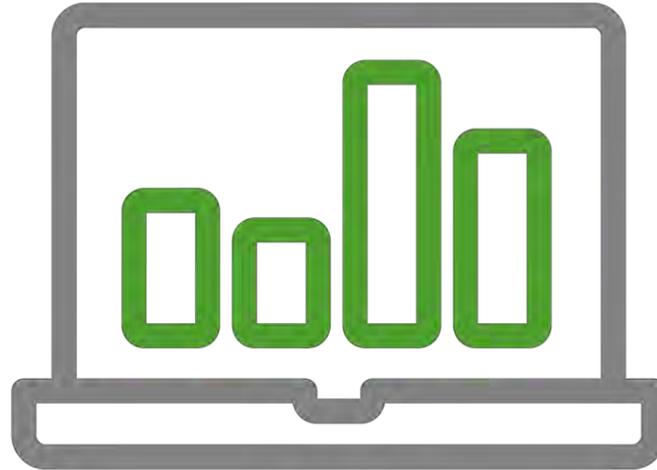
Operationalizing decision making

Operational systems will produce and consume big data

- Automated Processes (RPA)
- Predictive analyses
- Second order analysis (ethics, bias)
- Pervasive dashboards and data centric culture

IOT

- Stream data and time series analyses
- Things operate on data, and produce data, which is input to things that operate on data, and produce data, that is input.....





LEARNING

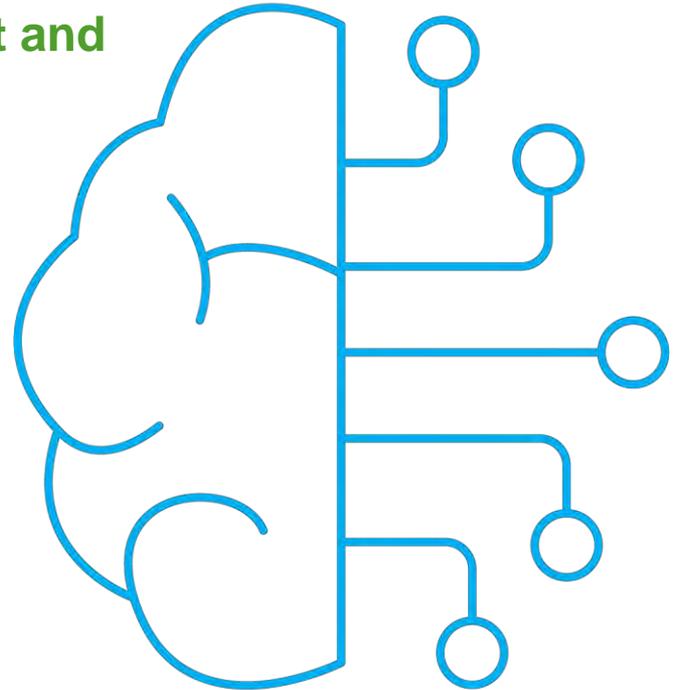
Intelligent systems that learn

AI for improving data quality, management and understanding

- AI assistance in finding data, creating metadata
- AI assistance in linking business and technical metadata
- Natural language interfaces with autonomous functions

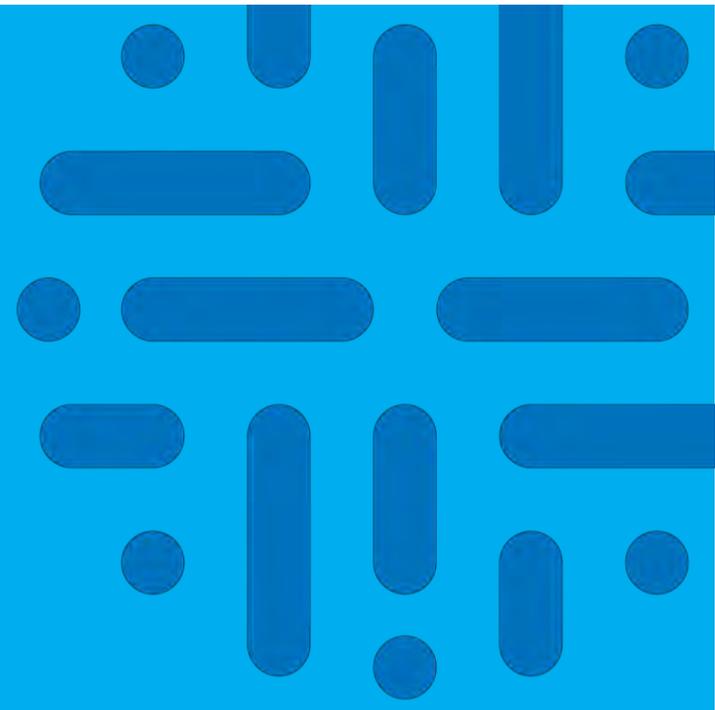
Improving data for AI

- Trustability of data
 - Measurements of value, coverage, bias
- Model-training data relationship management
 - Using AI to create training data and tune models





LEDGERS



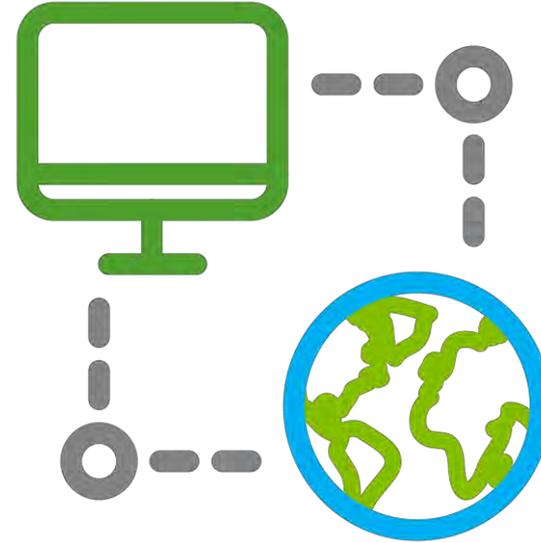
Managing data across the value chain

Value management of data

- Infonomics
- Attribution models
- Data Supply chain
- Value at Risk

Data Value Chain

- Trustworthy intermediaries
 - Blockchain
- Trusted relationships
- Open data



The future of the data lake

- **Big** – data is located in various places, and collocated with processing (AI). Data Consumers are completely unaware
- **Operational** – Data analysis is increasingly incorporated into operational workflows. IOT forces organizations to deal with substantial volume, time series and other challenging analyses.
- **Learning** – Big data will be the foundation of machine learning, and this in turn will produce more big data, And AI's will govern AI's leading to more data
- **Ledgers** – Distributed data will be shared across value chain participants. Blockchain will be the foundational technology for sharig