Disrupt & innovate with Cognitive

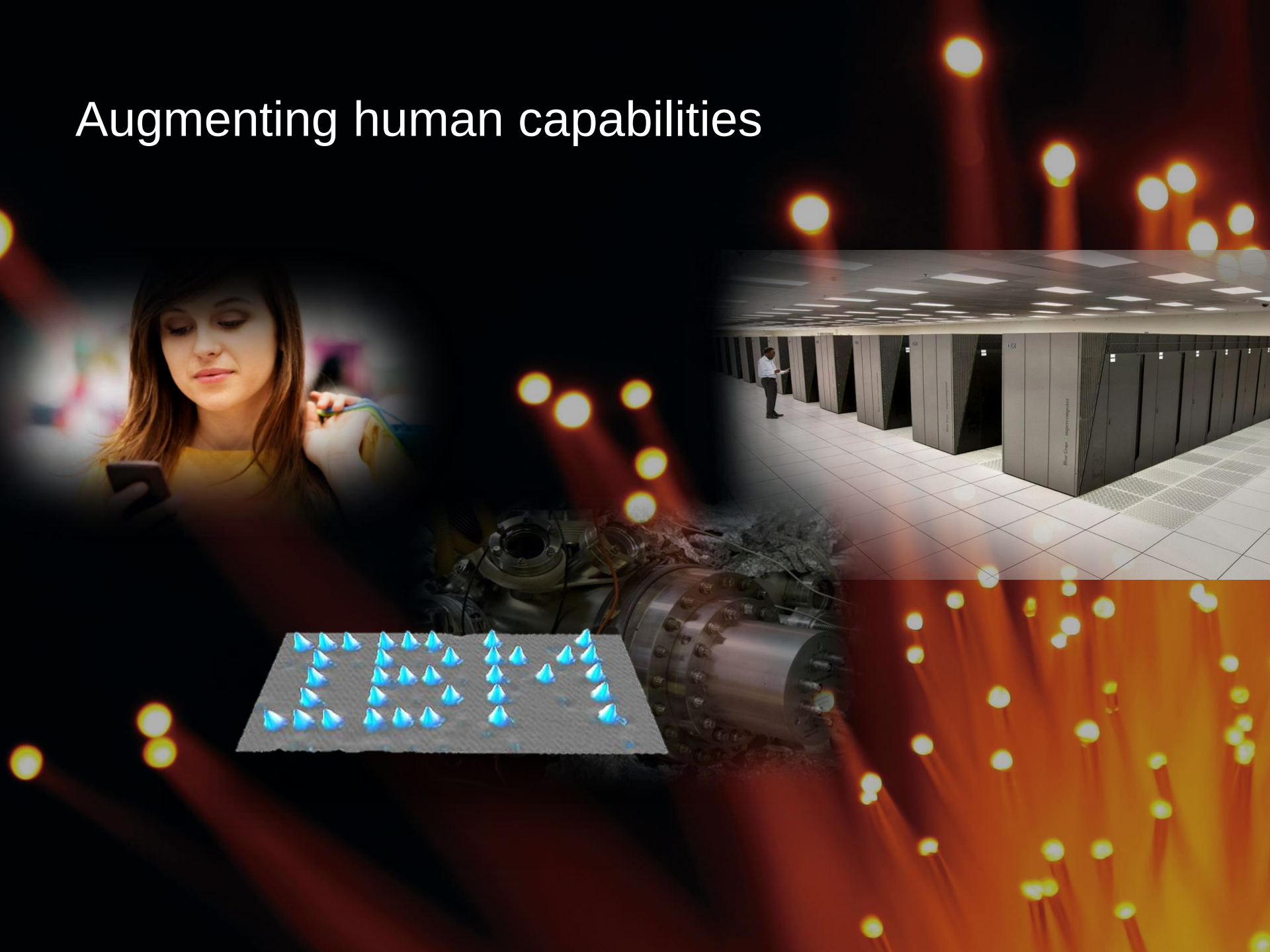
Jeff Rogers

Public Sector Industry Solutions,
IBM Cognitive Solutions

@jbrogersibm

Augmenting human capabilities

Augmenting human capabilities



Augmenting human intelligence

Understand multiple languages

Converse in spoken dialogue

Comprehend complex images

Interpret sensory perceptions

Develop domain knowledge

Derive new insights

Natural Language Processing

Question Answering

High Performance Computing

Knowledge Representation and Reasoning

Machine Learning

Unstructured Information

Overwhelming growth of unstructured data

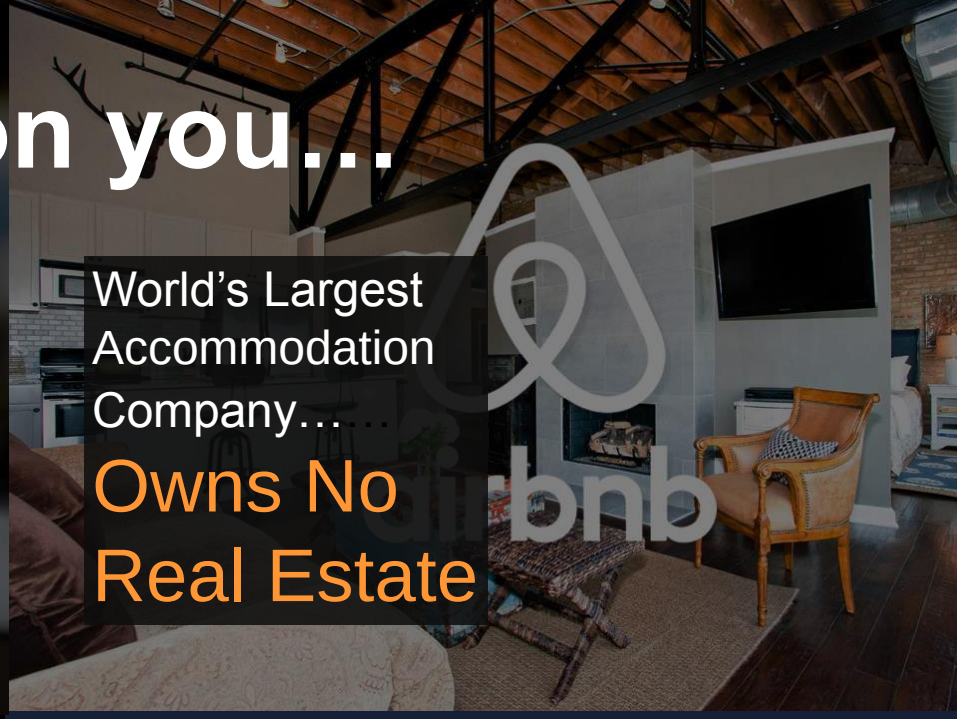
©2016 IBM Corporation

What is Cognitive?

Disruption is upon you…

World's Largest Taxi Company…

Owns No Vehicles



World's Largest Accommodation Company……

Owns No Real Estate

World's Largest Retailer…

Carries No Inventory

World's Biggest Media Company..

Creates No Content

facebook

Photograph by Andrew Harrer/Bloomberg

Oil & Gas

Modern facilities have more than **80,000** sensors in place, and a single reservoir will produce more than **15 PB** of data in its lifetime

Public Safety

New York City surveillance cameras and sensors generate **520 TB** of data per day, largely unstructured

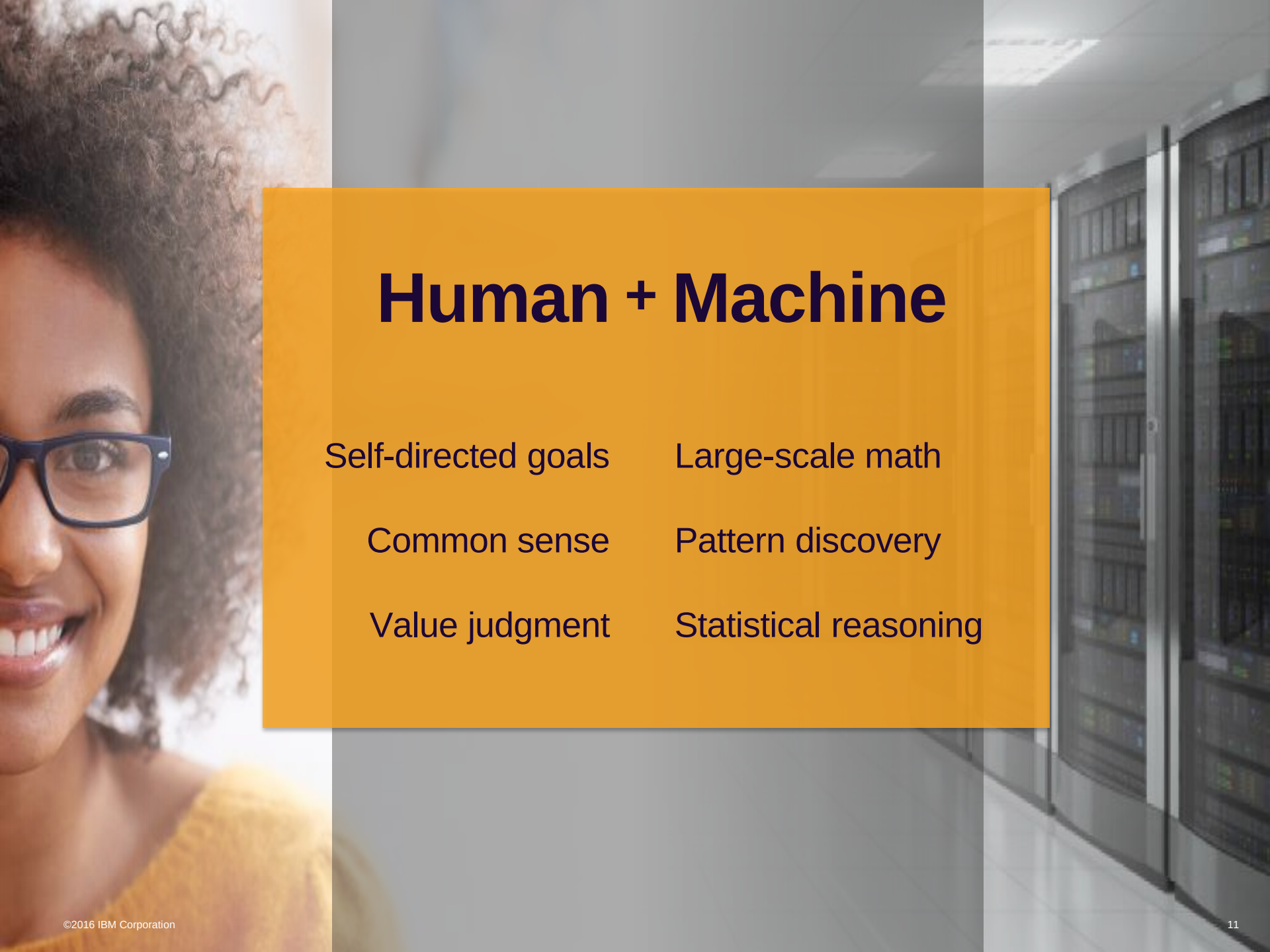
Energy & Utilities

More than **680 million** smart meters will be installed globally by 2017 – producing more than **280 PB** of new data to be analyzed and acted upon

Healthcare

Each person will generate **1 million GB** of health-related data in their lifetime – equivalent to about **300 million** books

©2016 IBM Corporation

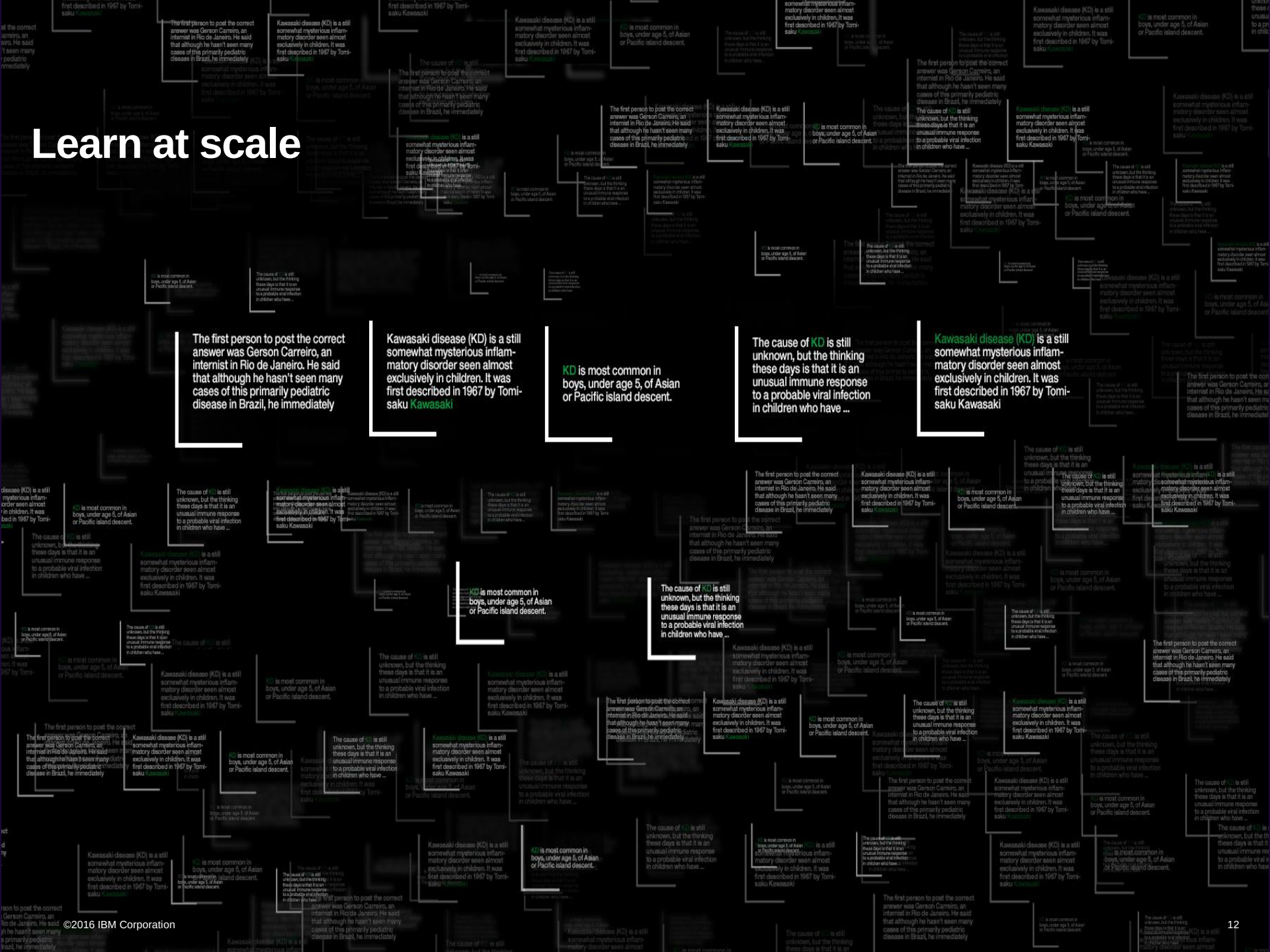


Human + Machine

Self-directed goals	Large-scale math
Common sense	Pattern discovery
Value judgment	Statistical reasoning

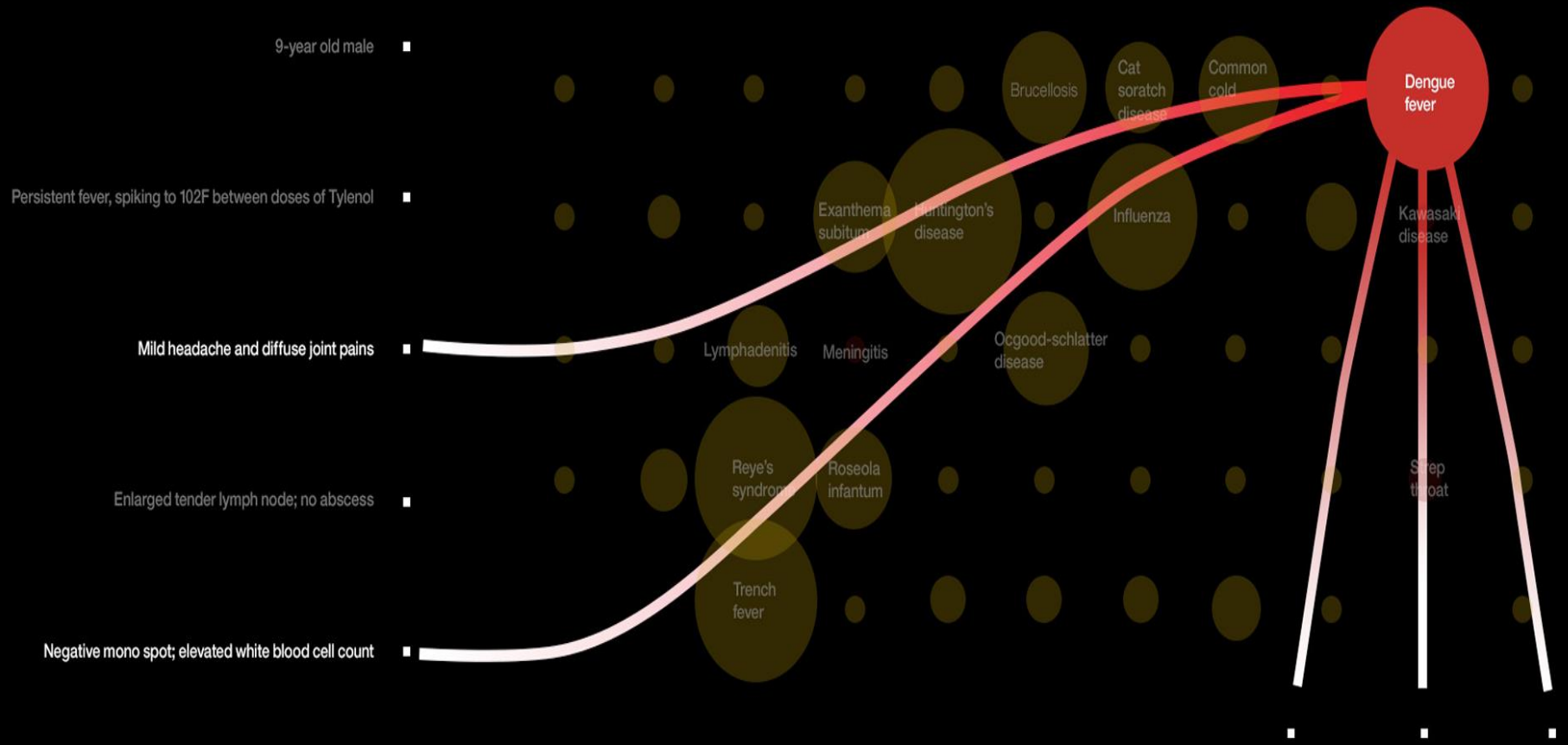
©2016 IBM Corporation

Learn at scale



©2016 IBM Corporation

Reason with purpose



©2016 IBM Corporation

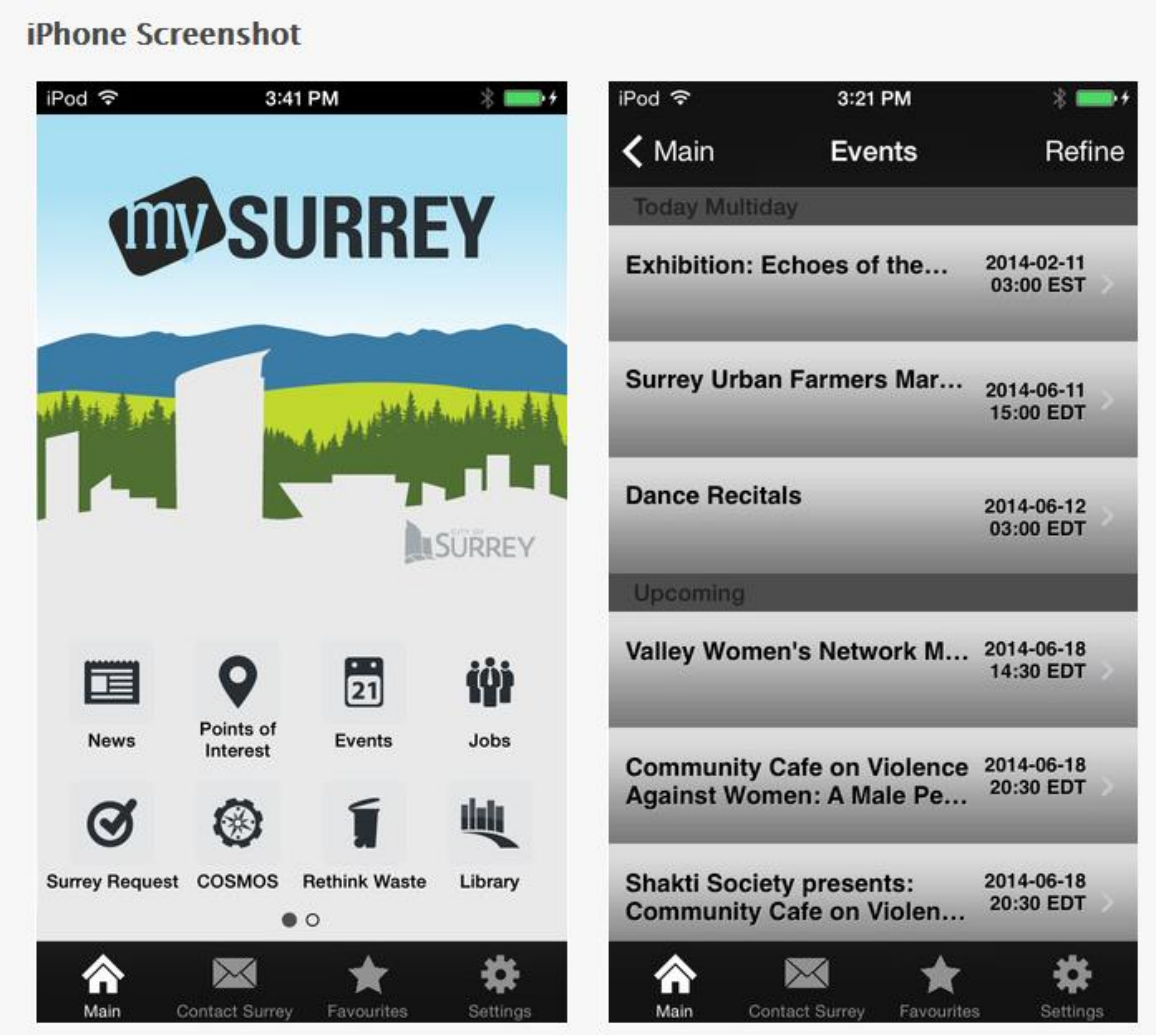
Cognitive IoT

"Pepper"
IBM + SoftBank

© 2015 International Business Machines Corporation

My SURREY

powered by Watson



IDavatar – Nurse Sophie

powered by Watson

Government related solutions

powered by Watson

Security
- Threat Prediction and Prevention
- Cognitive Cyber Defense
- Law Enforcement
- Emergency Response

Sentiment
- Sentiment Analysis of open source data
- Personality Insights

Infrastructure
- Building Management
- Water Management
- Transportation Management
- Bridge Safety

IBM Acquisition of The Weather Company

IBM's "*moon shots*"

powered by Watson

- Healthcare
  - Watson Health
  - Watson for Oncology
  - Watson Clinical Trial Matching
  - Apple HealthKit
  - Medtronic Diabetes Monitoring
  - Under Armour Digital Fitness
- Education
  - Student Recruitment and Retention
  - Fundraising Campaigns
  - Personalized Learning

Advantages of Cognitive

Intelligent exploration and discovery.

Deeper human engagement.

Elevated expertise.

Cognitive processes & operations.

Cognitive products and services.

© 2015 INTERNATIONAL BUSINESS MACHINES CORPORATION

Becoming a Cognitive Government

1. Get educated

   http://www.ibm.com/cognitive/outthink/

2. Select one area where cognitive might apply

3. Try it out in the cognitive cloud

   https://www.ibm.com/smarterplanet/us/en/ibmwatson/developercloud/

Start your journey

Jeff Rogers, jbrogers@us.ibm.com