

IBM Watson



# IBM Watson Group

A New Era of Computing

February 2014



# The Mega Trends

Cloud



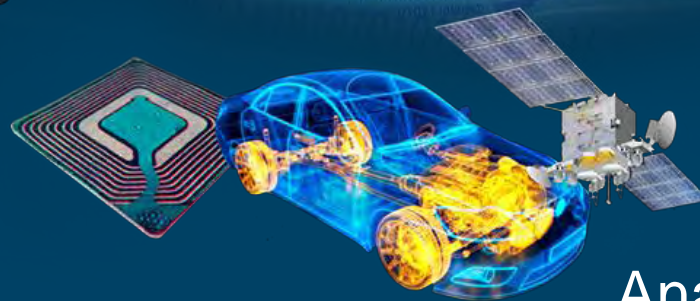
Mobile



Social



Big Data



Analytics

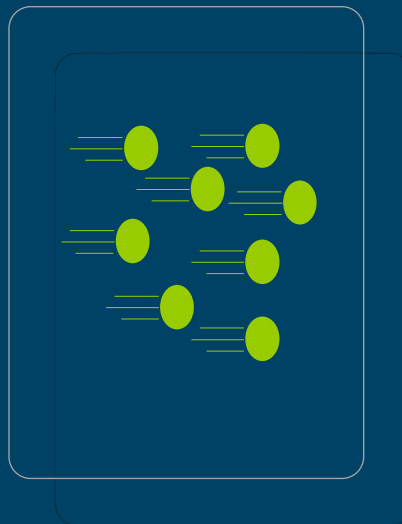
# Big Data: More than just volume

## Volume



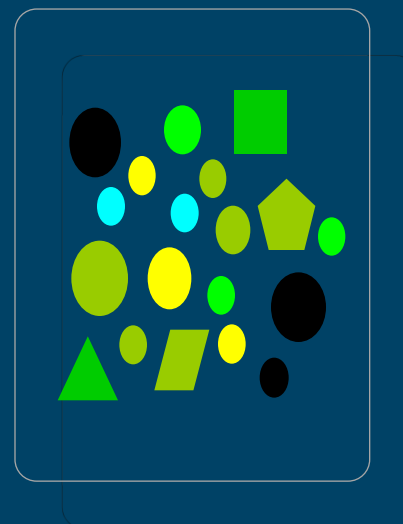
Terabytes to exabytes  
of existing data to  
process

## Velocity



Streaming data,  
milliseconds to  
seconds to respond

## Variety



Structured,  
unstructured,  
text & multimedia

## Veracity



Uncertainty from  
inconsistency,  
ambiguities, etc.

# Watson is ushering in a new era of computing

Tabulating  
Systems Era

1900

Programmable  
Systems Era

1950

Cognitive  
Systems Era

2011



# Watson is cognitive computing

Watson understands me.

Watson engages me.

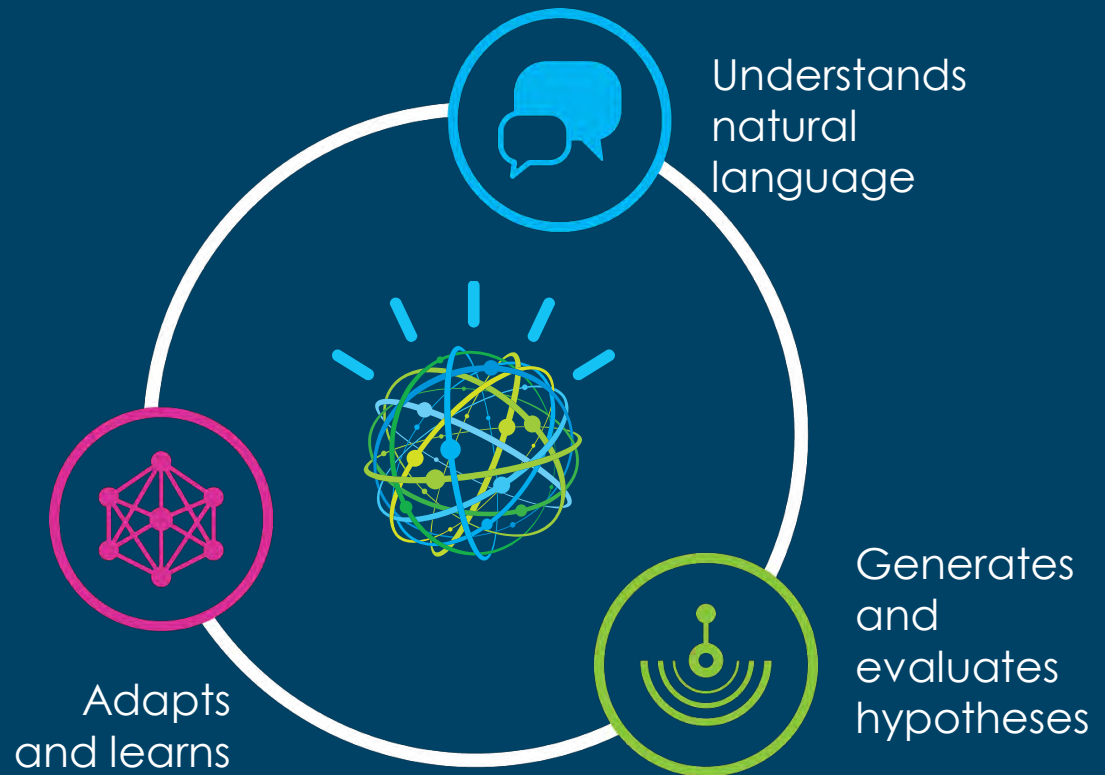
Watson learns and improves over time.

Watson helps me discover.

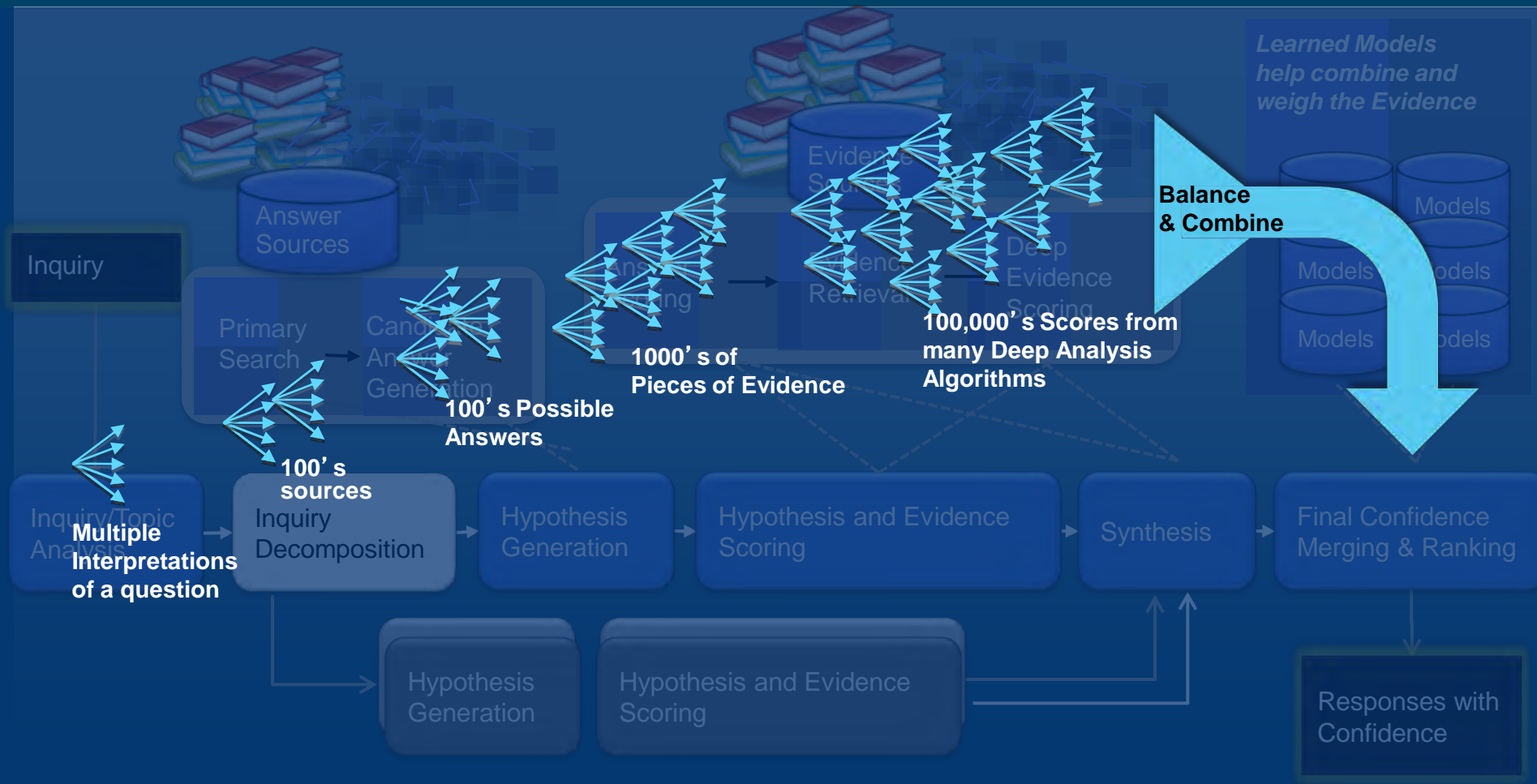
Watson establishes trust.

Watson has endless capacity for insight.

Watson operates in a timely fashion.

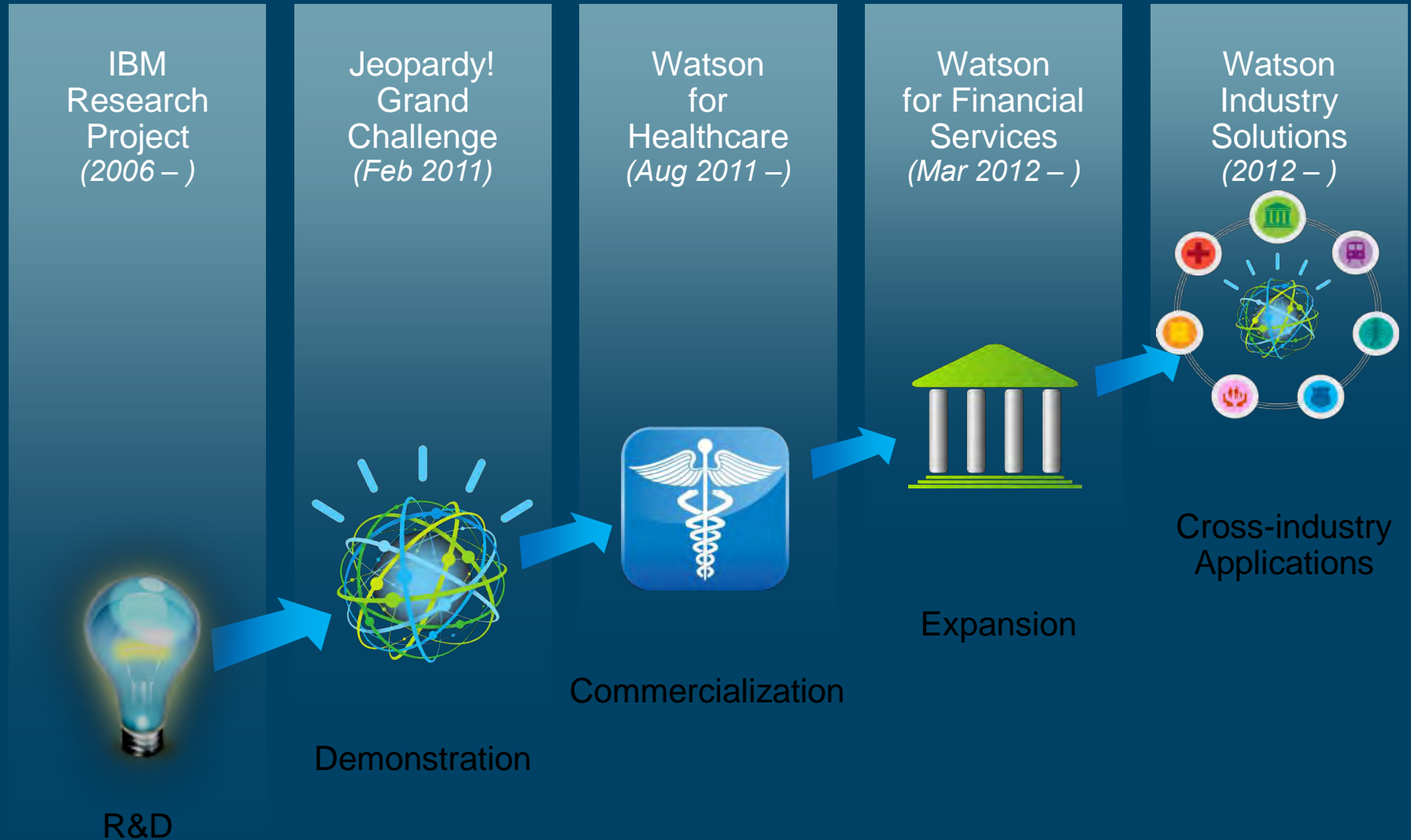


# How Watson Works: DeepQA Architecture

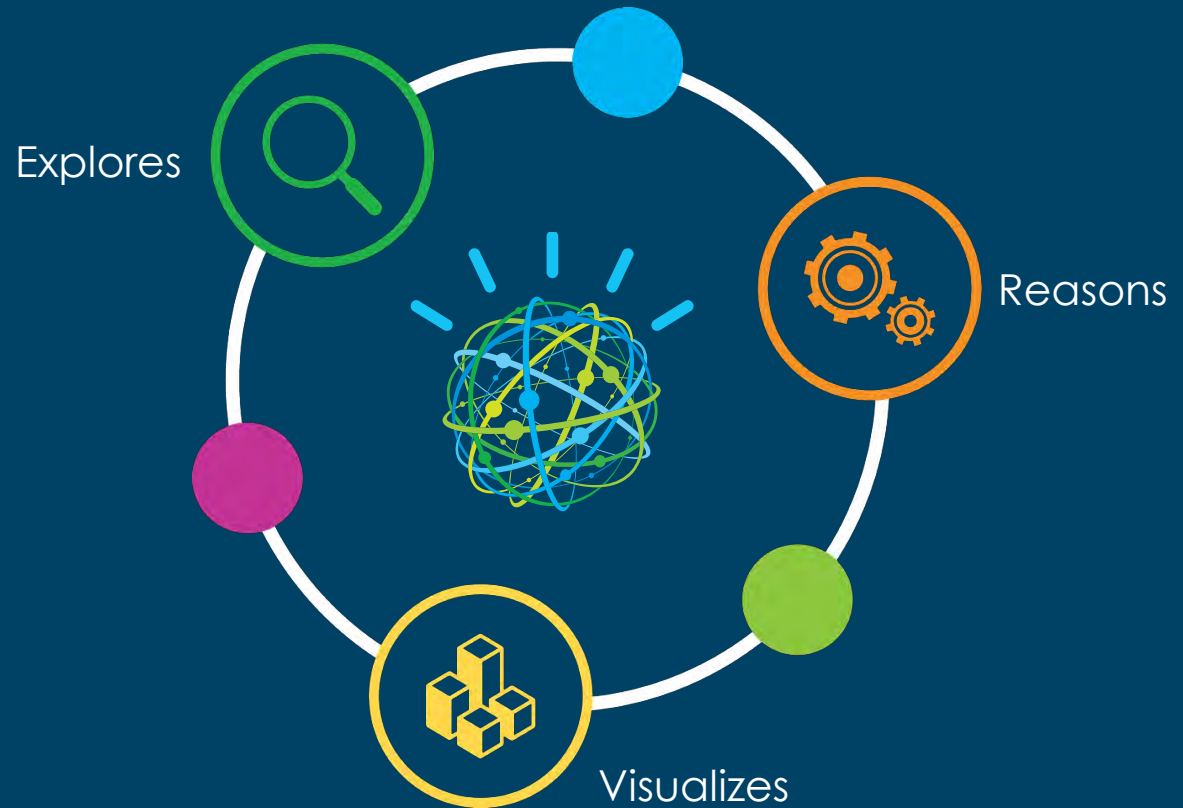




# Putting Watson to work to address the world's pressing issues



# Watson's intelligence and capabilities are expanding





# Watson Engagement Advisor

Helps organizations improve how they answer their clients' needs

- Engage under-engaged clients
- Grow top-line revenue
- Improve bottom line results



# Watson Analytics

Uses natural language, cognitive capability on front end, to help users do math, and ask questions about data

- Enables *anyone* to independently discover new patterns to inform better decisions
- Targeted horizontals: Sales and Marketing
- Cloud-based model supports adoption for departmental groups by enabling quick startup and evaluation



# Watson Explorer

A visualization exploration engine to help people understand what's in their data

- Find, extract and deliver content regardless of format or where the data resides
- Helps improve the return on all types of information including:
  - Structured data
  - Unstructured content
  - Semi-structured



## Watson Advisors in medicine

A data-rich, societally important field helping Watson change how medicine is:

➤ Taught & Researched  
Major Cancer Center

Students learn from and “teach”  
Watson at the Cleveland Clinic

➤ Practiced  
Memorial Sloan-Kettering,  
Community Cancer Care Centers

➤ Paid  
WellPoint & Utilization Management



# Watson Policy Advisor helping streamline pre-approvals



Accelerating pre-approvals from 24 hours to minutes



## Business problem:

Faster review and authorization of medical procedures

## Solution:

- Objective review based on clinical, medical, & patient data
- Actionable, confidence-weighted analysis based on relevant content, policies, and guidelines

WellPoint's Interactive  
Care Guide & Reviewer  
powered by IBM

Watson



WELLPOINT™



# Watson Oncology Advisor helping oncologists treat cancer

Attacking the cause of  
 $\frac{1}{4}$  of deaths



## Business problem:

Need better individualized cancer treatment plans

## Watson Oncology Advisor



Memorial Sloan-Kettering  
Cancer Center

## Solution:

- Evidence-based suggestions to inform oncologists' decisions
- Analyzes patient data against massive volumes of medical literature
- Evolves with the fast-changing field



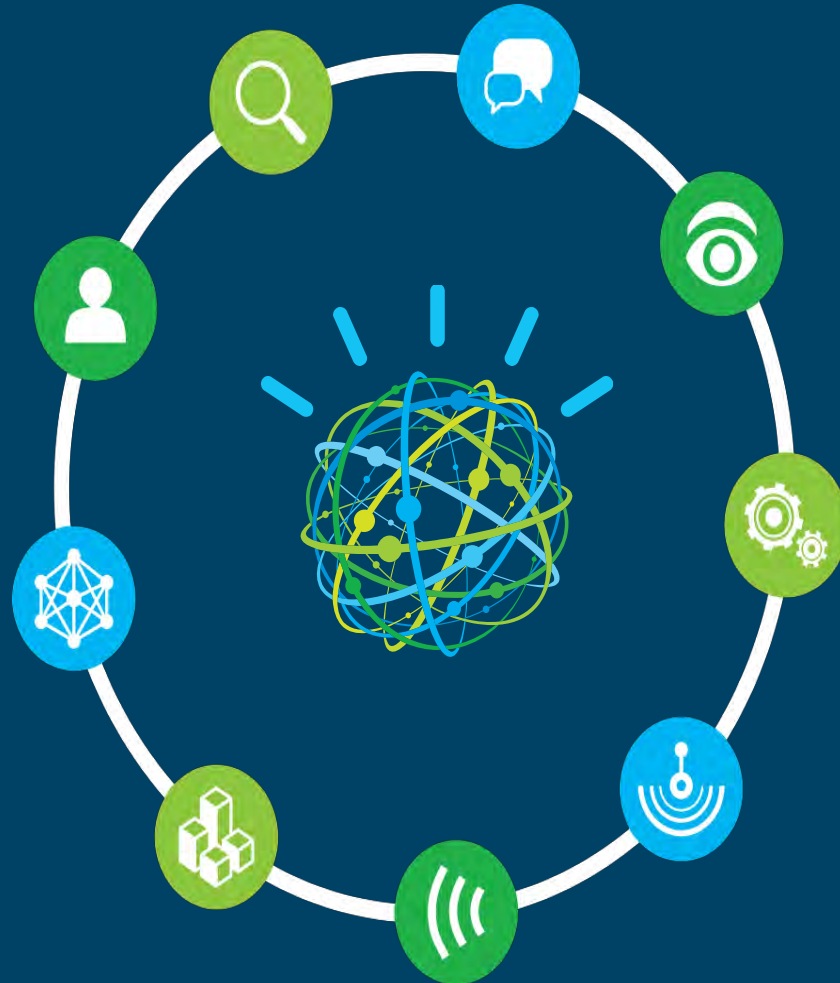
# DEMO

## Watson Oncology Advisor

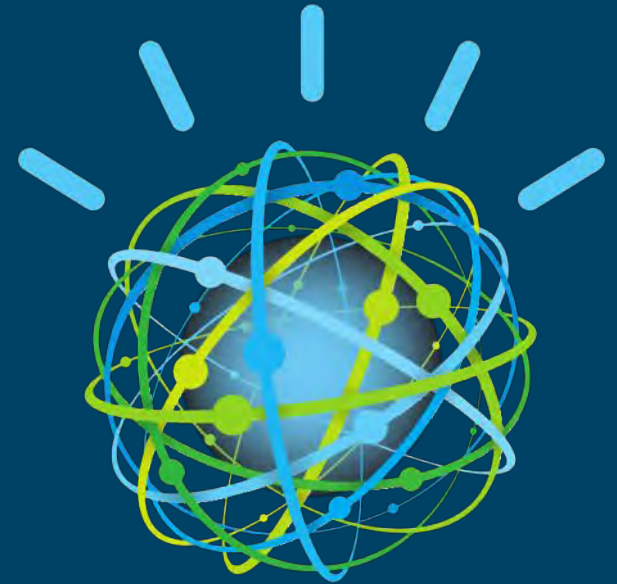


## This will be Watson

- Understands natural language  
Generates and evaluates hypotheses  
Adapts and learns
- Reasons  
Explores  
Visualizes
- Sees  
Hears  
Experiences



Thank  
You



[www.ibm.com/watson](http://www.ibm.com/watson)