Cities in the Cognitive Era

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May 19, 2016
Madrid uses analytics to cut costs and support outcome-based maintenance contracts

- Service providers paid for quality, not activities
- 1,500 daily inspections tracking 300 KPIs
- Incentive to innovate and optimize resource deployment
- 6% reduction in cost of city services
- 10-20% reduction in IT costs
- Citizen collaboration
Since 2010 IBM has deployed 800+ executives and top experts to 130+ cities around the world in pro bono Smarter Cities Challenge program.
In 1997 IBM Deep Blue made history by defeating Garry Kasparov in chess.
In 2011 IBM Watson made history by defeating two best players in Jeopardy! Ken Jennings and Brad Rutter.
Watson has grown since winning *Jeopardy!* in 2011

2011

- Questions & Answers
  - Language Detection
  - Personality Insights
  - Relationship Extraction
  - Keyword Extraction
  - Image Link Extraction

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Natural Language Processing
Machine Learning
Question Analysis
Feature Engineering
Ontology Analysis

Visual Recognition
Natural Language Classifier
Text to Speech
Author Extraction
Tradeoff Analytics
Speech to Text

Concept Expansion
Concept Insights
Dialog
Concept Tagging
Language Translation

Concept Insights
Dialog
Concept Tagging
Language Translation

Language Tagging
Retrieve & Rank
Tone Analyzer
Entity Extraction

Sentiment Analysis
Feed Detection
Message Resonance
Taxonomy

Image Tagging
Text Extraction
Face Detection

28 APIs now

Decision Optimization
Knowledge Graph
Emotion Analysis
Knowledge Studio Service

Usage Insights
Risk Stratification
Decision Support
Statistical Dialog

Fusion Q&A
Policy Classification
Knowledge Canvas
Case Evaluation

Factoid Pipeline
Video Augmentation
Q&A Qualification

Watson News
Watson News

Answer Generation
Answer Generation

50 APIs by end of 2016
Ken Jennings + IBM Watson on competition
“In fact, the business plans of the next 10,000 startups are easy to forecast:

Take X and add AI.
This is a big deal, and now it's here”

- Kevin Kelly (founding executive editor of Wired magazine)
Bob Dylan + IBM Watson on language