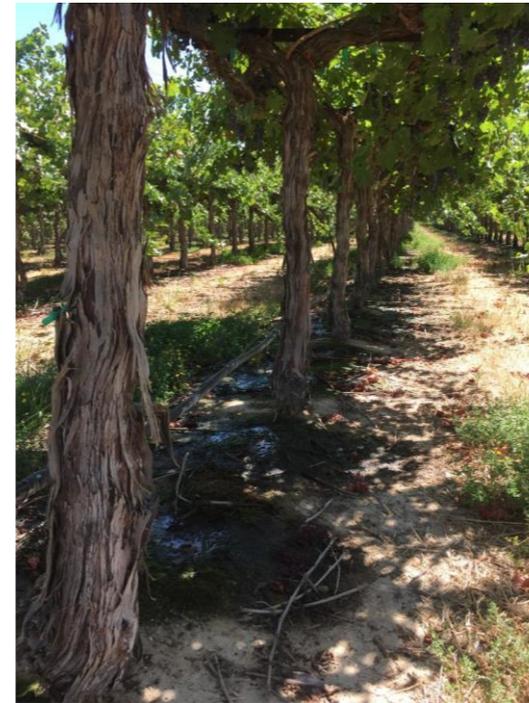


E&J Gallo Water into wine



Product
improvement and
recude the water
consumption

2013

Up to 30% more
yield
16% more efficient.

The IBM Watson™ Analytics service is used by E&J Gallo to improve the way the crops are irrigated.

It uses satellite imagery, information of the soil, water and weather forecast to personalise the needs of water and nutrients of individual sections of 15X15 metres with vines. The aim is to eliminate variability in the satellite image and control the particular requirements of the crops. The implementation of the system has reduced the consumption of water by 25% and improved the year in more than 25%. However, the principal target is to produce better wine at big scale.

Link: <http://fortune.com/2016/01/09/ibm-bringing-watson-wine/>





91 million of security events

2013

2 trillion of loses

Sparkcognition

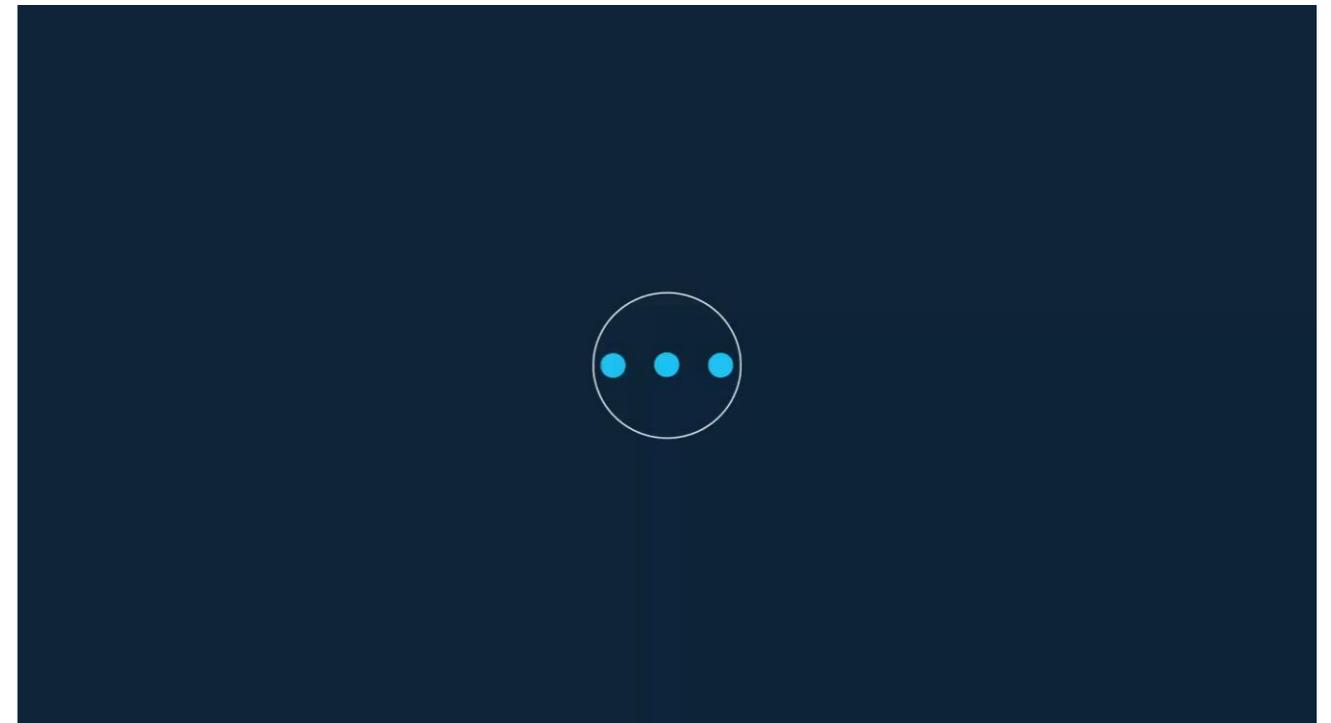
The third way of AI

The IBM Watson™ Natural Language Processing tools are used to change the traditional view of cybersecurity.

It formulates questions, looks for information, read content, analyses confidence levels and reaches conclusions and simulates scenarios about the possible risks within the systems and the public services grids. They trained the Watson app to generate the proper questions to minimise the impact of the attacks.

Sparkcognition finds behavioural anomalies and uses the experience to find uncovered patterns within the systems. It is not a blocking approach but like interior defence. The final aim is threat detection and prevention

Link: <http://sparkcognition.com/>





Visual Recognition

Visual Recognition uses deep learning algorithms to analyze images that can give you insights into your visual content. You can organize image libraries, understand an individual image, and create custom classifiers for specific results that are tailored to your needs.

Resources:

[API Reference](#)

[Documentation](#)

[Fork on Github](#)

[Try](#)

[Train](#)

Try the service

Choose a sample image or upload your own image (max 2mb) to try out Visual Recognition.



Or paste an image URL

Watson sees...



[JSON](#)

Classes	Score
animal	1.00
meerkat	0.92

Type Hierarchy

- /animals
- /animals/meerkat

IBM Watson™ Visual Recognition API

- The IBM Watson Visual Recognition service uses deep learning algorithms to analyze images for scenes, objects, faces, and other content
- Return keywords that provide information about that content.
- Create custom collections of your own images, and then upload an image to search the collection for similar images.

Link: <https://visual-recognition-demo.mybluemix.net/>

Talkspace

The screenshot displays the Talkspace interface. On the left, a therapist profile for Gina Harvey, LMFT, is shown with her name, title, and a circular profile picture. Below the profile, there is a subscription offer for 'Unlimited Messaging Therapy Monthly' at \$32/week, with a 'SUBSCRIBE' button. A disclaimer at the bottom left of the profile section reads: 'If you are in a life threatening situation - don't use this site. Call +1 (800) 273-8255 or use [these resources](#) to get immediate help.'

The main chat area on the right shows a conversation. At the top, a teal message bubble says 'I have problem' with a timestamp of '2 minutes ago'. Below it, a white message bubble from Gina says: 'Welcome to Talkspace. I'm Gina, your Consultation Therapist. I'll be explaining how Talkspace works and guiding you through our process for identifying a therapist who is best suited to your specific needs. I'm also a professional licensed therapist - so you can feel comfortable openly sharing your concerns with me. I want to let you know that I am here to assess your needs and give you a chance to see how Talkspace works. Once you subscribe I can match you with a therapist that specializes in the area of help that you need. Can I help you with a problem or a concern?' with a timestamp of '2 minutes ago'. The next white bubble from Gina asks: 'What makes you think that you are weak and how long have you felt this way?' with a timestamp of '2 minutes ago'. This is followed by two teal message bubbles from the user: 'Lack of Food' (timestamp: 'a minute ago') and 'any solution !' (timestamp: 'a minute ago'). Then, a white bubble from Gina asks: 'We provide mental health therapy, have you reached out to your local food pantry?' (timestamp: 'a minute ago'). The final white bubble from Gina asks: 'Do you not have enough money for food?' (timestamp: 'a few seconds ago'). At the bottom of the chat area, there is a text input field with the placeholder 'Write Gina a message...', a microphone icon, and a 'SEND' button with a right-pointing arrow.

- [Talkspace](#) is a global online platform that allows users to chat with a licensed therapist confidentially and anonymously.
- It is using IBM Watson to better match users with therapists in their network using a self-learning system that seeks to better understand the traits of individual user
- The integration relies on Watson's Personality Insights API. After analyzing text, the tool helps better understand personality, social characteristics, thinking style, and emotional stress of the patient. Using these insights, it can help match the patient to the best therapist for his or her situation.

Sesame Street

Develop educational platforms and products that will be designed to adapt to the learning preferences and aptitude levels of individual preschoolers.

Examples of concepts IBM and Sesame Workshop have sketched out include:

- A. Super-smart toys, like a plush Elmo that engages directly with a child, listening and using the information to create playful activities. The toy adapts to children's developmental skills over time using cognitive-computing capabilities. For example, after kids master counting to 20, Elmo can start practicing counting to 30 together with them.
- B. A learn-to-read app that reads along with a child, creating interactive play experiences that use his or her own words (like "let's play ball with the dog"). Using Watson's capabilities, the app analyzes a child's response in real time and dynamically adapts content based on a child's interests.
- C. A classroom tool that helps teachers create educational experiences tailored to needs of individual students, as well as create activities tailored to the unique interests of groups of children.

Link: <http://www.ibm.com/internet-of-things/iot-news/announcements/sesame-street/>



Watson for healthcare

Oncology:

- partnership with New York's Memorial Sloan Kettering Cancer (MSK)
- interpret cancer patient's clinical information and identify individualized, evidence-based treatment options
- > 130,000 cancer patient
- MSK oncologists training Watson over a year
- Bumrungrad Hospital : 5 years commitment to using IBM Watson for Oncology
- <https://www.mskcc.org/about/innovative-collaborations/watson-oncology>

Medtronic :

- predict hypoglycemic episodes in diabetic patients nearly 3 hours before its onset

Apple (ResearchKit) :

- SleepHealth app : monitor connection between sleep habits and health outcomes
- introduced by IBM and American Sleep Apnea Association (ASAA) for apple watch
- <http://www.03.ibm.com/press/us/en/pressrelease/49275.wss>

Watson for healthcare (con..)

Johnson & Johnson:

- prototype app to coach patients after knee replacement surgery
- mobile app
- <http://blogs.wsj.com/cio/2015/09/25/johnson-johnson-looks-to-ibms-watson-to-predict-patient-outcomes>

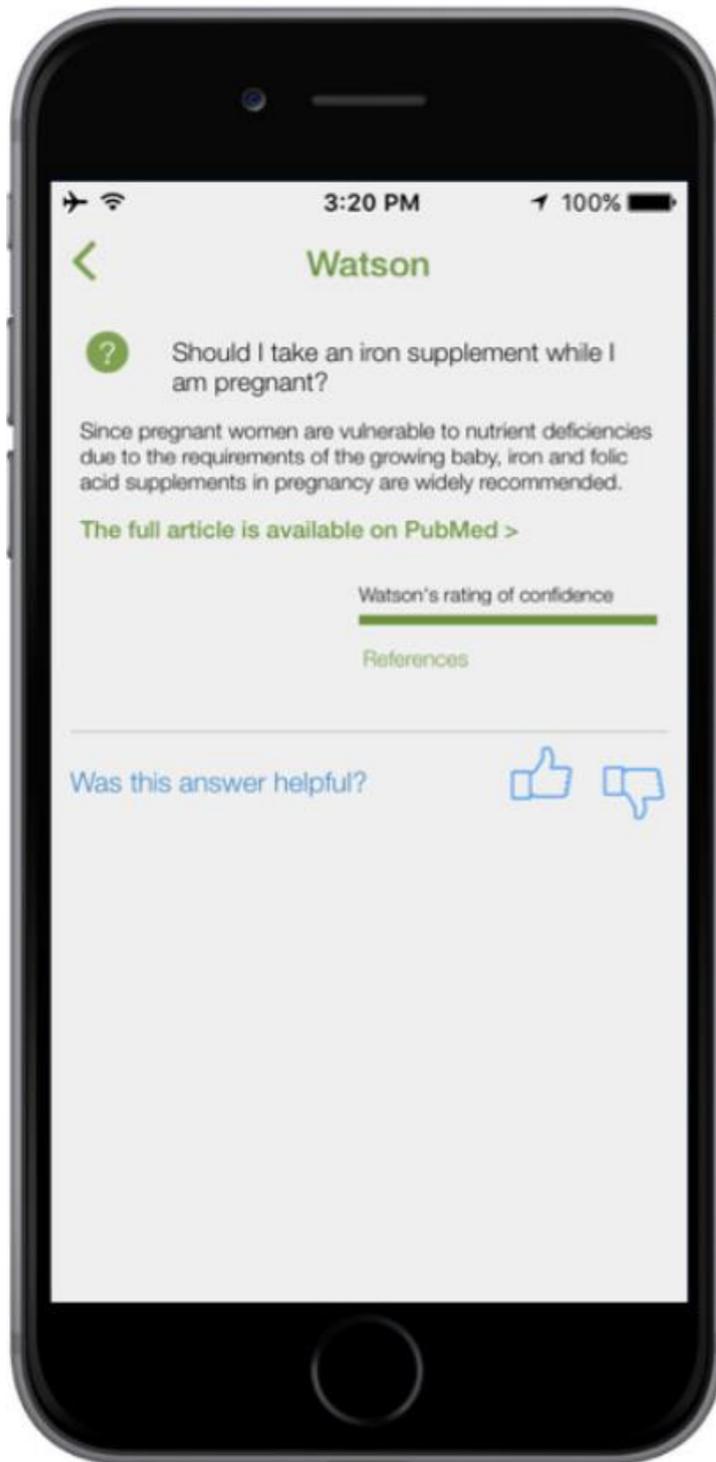
Under Armor:

- Focused category: SLEEP, FITNESS, ACTIVITY and NUTRITION
- Behavioral and Performance management – customize programs
- Food intake tracking & overall nutrition management – visual recognition of food
- Weather and environmental factors – modify fitness program
- <https://www-03.ibm.com/press/us/en/pressrelease/48764.wss>

Medical Imaging (projected plan):

- 15 leading health systems, academic medical centers, ambulatory radiology providers and imaging technology companies. (22-June-2016)
- extract insight from ‘invisible’ unstructured imaging data
- start with training Watson (congestive heart failure/myocardial infarction evidence-based clinical decision for ophthalmologists and optometrists)

IBM is changing healthcare!



Interpreting Medical Images

- IBM bought [Merge Healthcare](#) for \$1 billion
- Access to more than 30 billion medical images from over 7,500 hospitals
- Feed Watson these images in hopes that it'll spot important information

Treating Rare Forms of Childhood Diseases

- Watson will learn nephrology — a form of study that focuses on kidney function
- Reading medical literature on the subject and pulling together more information
- Boston Children's Hospital will then give Watson genomic information

Treating Cancer Patients Where Doctors Are Scarce

- IBM and Manipal use Watson for diagnosing and treating cancer
- Called Watson for Oncology, the new software was designed
- it'll constantly be learning more about oncology as more textbooks and journals are published

Powering An App That Gives Nutrition Advice To Pregnant Women

- IBM unveiled the Nutrino App Powered by Watson in December
- Science-based, personalized, and contextual nutrition advice
- Watson answers the questions by searching through Nutrino's database