

INTRODUCTION

Chatbot technology has hit the market recently. This new piece of software enabled brands with a very intuitive way to communicate with their customers conversation. This triggered a range of new ideas coming to creative minds.

Watson is a question answering computer system capable of answering questions posed in natural language, developed in IBM's DeepQA project. The computer system was specifically developed to answer questions on the quiz show Jeopardy! and, in 2011, winning the first-place prize of \$1 million.

Artificial intelligence (AI) is changing the way marketers, commerce and supply chain professionals engage customers. And Watson AI is leading the way with a proven solution to help you extract more value from your data.

Deliver personalized experiences at every step of the customer journey. Enrich interactions, recommend with confidence, and assess and preempt disruptions.

With Watson you can streamline how you engage with customers, partners and employees. Build robust, enterprise-grade chatbots to transform your customer service department and more.

APPLICATION

Visual Recognition

Quickly and accurately tag, classify and train visual content using machine learning.

Natural Language Understanding

Understand the intent behind text passages through custom classifiers, complete with a confidence score.

Speech to Text

Automatically transcribe audio from 7 languages in real-time

Conversation

Build and deploy chatbots and virtual agents across a variety of channels.

Tone Analyzer

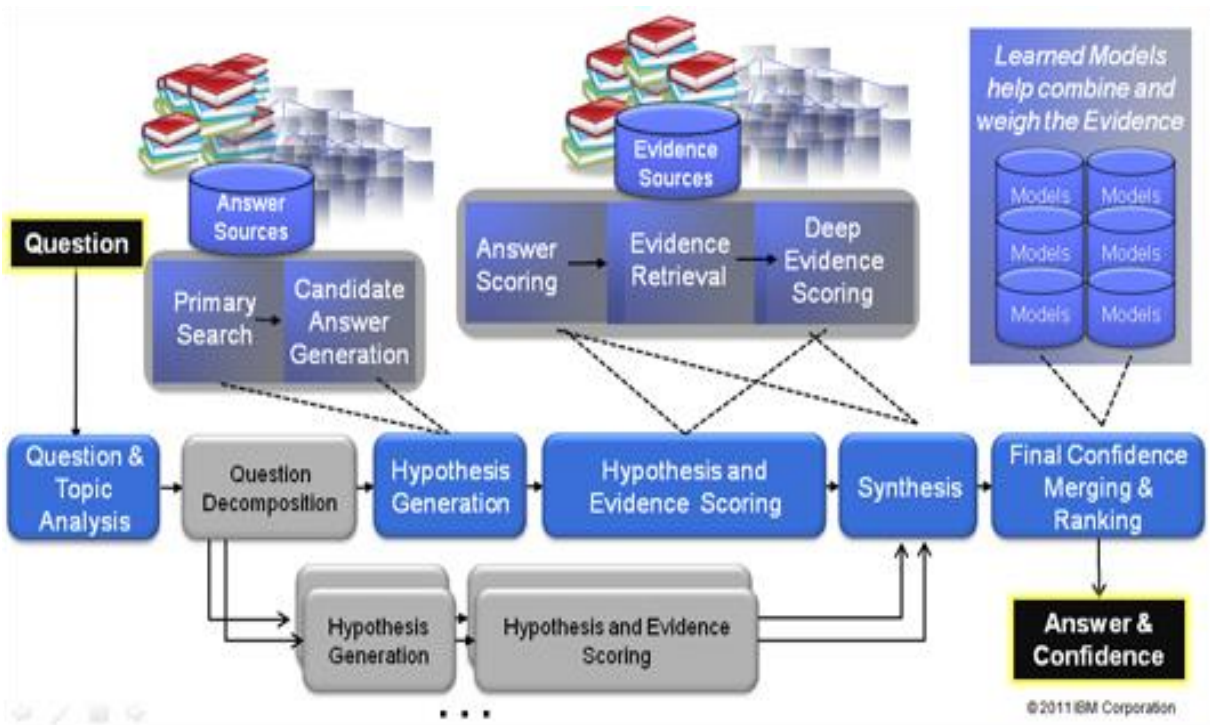
Understand emotions and communication style in text.

IBM Watson Chatbot

TECHNOLOGY SOLUTIONS

Some of Industry Solution are:

- Health
- IoT
- Advertising
- Customer Engagement
- Talent
- Work
- Education
- Financial Services



DeepQA Software Architecture

With Watson Automate and Simplify Processing for Recurring Helpdesk Tickets which enhance User Experience.

Solution Approach

1. Question Analysis

Detailed analysis of the question to determine what it is asking for and how best to approach answering it.

2. Hypothesis Generation

It takes the results of question analysis and produces candidate answers by searching the system's sources and extracting snippets from the search results.

3. Hypothesis and Evidence Scoring

Candidate answers that pass the soft filtering threshold undergo an evaluation process that involves gathering additional supporting evidence for each candidate answer, applying a wide variety of deep scoring analytics to evaluate the supporting evidence.

4. Final Merging and Ranking

The goal of final ranking and merging is to evaluate the hundreds of hypotheses based on potentially hundreds of thousands of scores to identify the single best-

Watson Conversation Tools Overview

	Description
Intents	An Intent is a category that defines a user's goal or purpose.
Entities	Watson's way of handling significant parts of an input that should be used to alter the way it responds to the intent.
Dialog	Dialog uses the intents and entities that has been identified plus context from the application to interact with user and ultimately provides a response.

Transform customer engagement with Watson

BUSINESS IMPACT

Some of the benefits that chatbots provides are:

a. Available 24*7

On an average people spend 7 minutes until they are assigned to an agent. Since chat bots are basically virtual robots they never get tired and continue to obey your command.

b. Handling Customers

Chatbots can simultaneously have conversations with thousands of people.

c. Cost Efficient

Chatbot in your business can be used to cater to simple queries of customers and pass on only the complex queries to customer support agents.

d. Cognitive Computing

Cognitive Computing for creating conversations between apps and users.

e. Handle Automated Tasks

Chatbots can help save time, labor, and money when used to handle easily automated tasks or low-pressure customer-facing situations.

f. Easier Approach to Global Markets

Whether you are already an international brand with customers all over the world, or a local brand who is ready for global business, chatbots can solve your customer care problems in multiple languages and 24/7, 365 days a year. This allows your business to scale up its operations to new markets without having to worry about multiplying incoming requests to be handled.

References

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b. Cognitive Computing

<https://www.ibm.com/cloud/garage/content/architecture/cognitiveArchitecture/>

c. Architecture

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