



# Self Service is Artificial Intelligence

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# History

- From game playing applications in 1960's
- To Speech Recognition in the late 1980's
  - In 1987 is cost \$500 per word to create a speech recognition vocabulary
- Automated workflows in the late 1990's
- Natural Language Processing allows for conversational AI that understands context - today

# Definitions

- “Artificial intelligence” was first coined in 1956 as the topic for the Dartmouth Conference, which became the first conference devoted to the concept of AI
- Customer self-service is a type of electronic support that allows end users to use technology to access information and perform routine tasks without requiring the assistance of a live customer service representative.

# Basic Concepts

- Natural Language Processing (NLP)
- Natural Language Understanding (NLU)
- Machine Learning
- Robotic Process Automation (RPA)
- Chatbots
- Voicebots



# Challenges

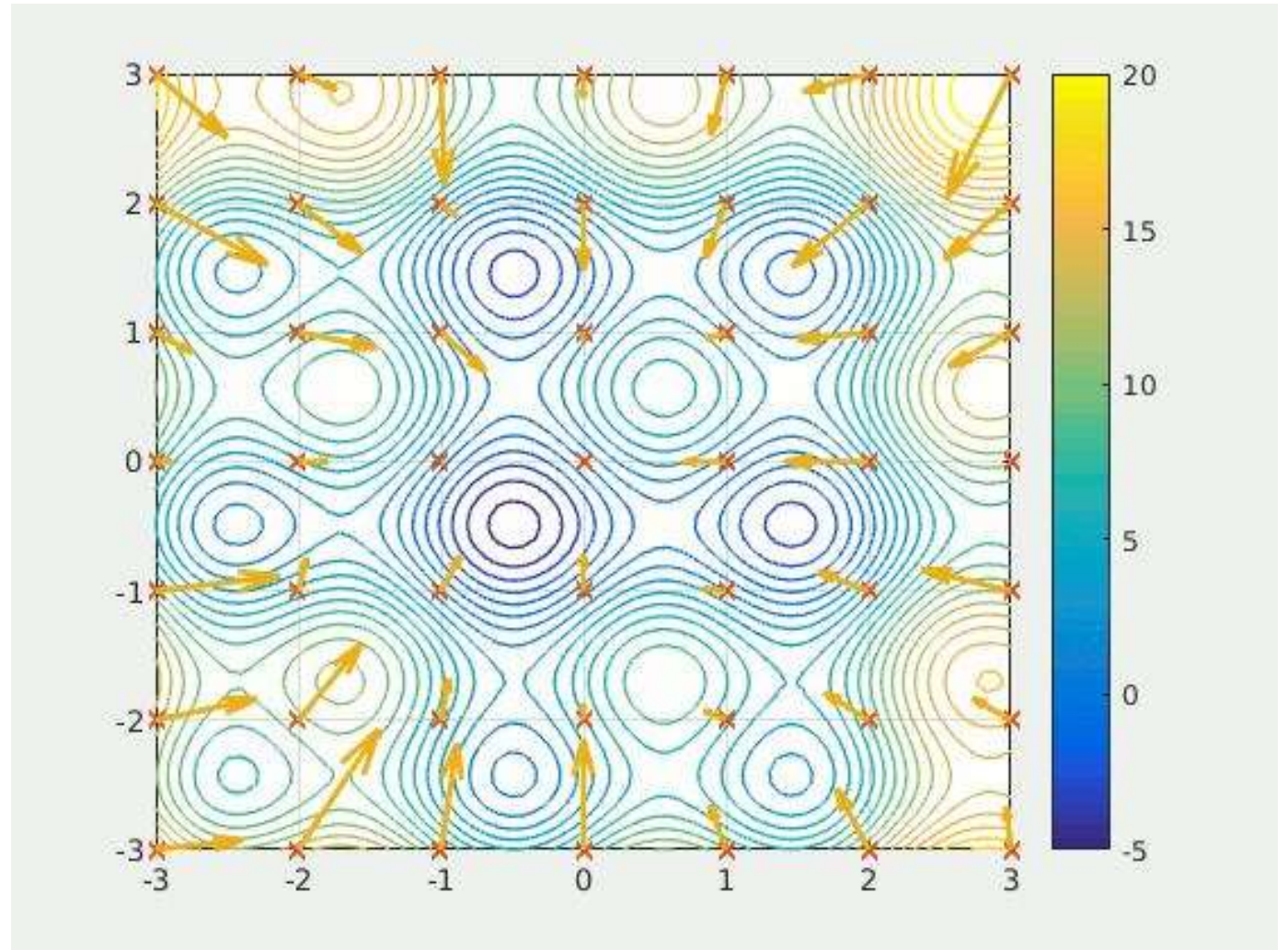
- High Volume, Low Complexity are expensive to support with a live agent
- Time to serve can be long as these contacts are in the live agent queue
- Customers expect to be able to get quick answers to basic questions

# Approaches

- Self-Service tasks originated on the web-site and IVR
- Early examples includes telephone and on-line banking and order tracking
- Today we are seeing more complex capability thanks to NLP, Machine Learning and RPA

# Getting Started?

Successful Contact Centre Self-Service design required a structured and formal process





# Applications

- Improve IVR containment, call routing
- Reduce Handle Time through improved contextual understanding
- Increased FCR
- Caller Authentication can save 90 seconds a call, but requires high repeat contact volume to make a compelling ROI
- Agent side automations such as Single Sign On, real time coaching and procedure guides can have dramatically ROI's
- Chatbots can solve basic queries and extend service availability to 7x24
- Chatbots can be voice enabled (T2S) to become voicebots

# Typical Evaluation Process

Review	Review your contact centre process for automation candidates (High Volume – Low Complexity) <ul style="list-style-type: none"><li>•Identify frequency of use</li></ul>
Understand	Understand the data sources required to automate these tasks
Determine	Determine the data source and; <ul style="list-style-type: none"><li>•Data Quality - high quality data is required to be effective</li><li>•Confirm if APIs exist to access this data</li><li>•Ensure adequate speed and refresh rates locally</li><li>•Ensure data source can support increased volume</li></ul>
Identify	Identify target audience, automation opportunity frequency, cost of current process and expect cost of the automation to determine expected ROI
Document	Document Use Case stories to confirm your understanding of who, where and when this automation will be employed
Rank	Rank your automation opportunities and develop Proof of Concept (POC) pilots to prove the effectiveness and ROI
Launch	Launch Pilot and iterate to improve performance, roll out and move onto the next POC pilot



# Technology Partners

There are hundreds of automation technologies and partners on the market

Major players include;

- Amazon- Alexa has a vocabulary of more than 500,000 known words and phrases
  - Amazon Lex can voice enable your chatbot
  - Transcribe and Comprehend can drive sentiment analysis
- Google Dialogueflow is available through a number of telephony platforms such as Nice InContact, Open AI approach
- Nuance a pioneer in voice processing, powers many of the Fortune 100 digital and voice solutions



# Key Strategies

- KISS principle, Keep it Simple
  - Start Simple and Start Small
  - Don't build one chatbot to do everything, you may never finish developing it
- Look for those contact types that are high volume but low complexity
- Context can inform interactions, understand where the contextual data resides, CRM, etc.
- Visual IVR can reduce customer effort and speed resolution

# Thank You



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