

# CHATBOTS 101



In the "Mobile-First" world, what type of app is used most widely and most often?

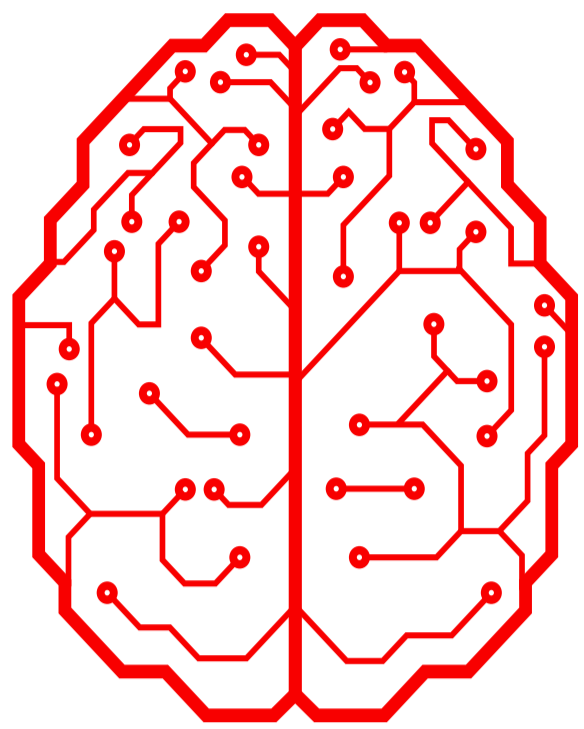
**Messaging apps!**

**4.1 Billion** users on messaging apps<sup>1</sup>

**6 of the Top 10** most used apps globally are **messaging apps!**

Intelligent conversational chatbots are the new interfaces for these apps, and they are changing the way businesses and customers interact.

## NOTABLE ARTIFICIAL INTELLIGENCE MILESTONES



1950

### THE TURING TEST

Alan Turing proposed "intelligent" machines would be indistinguishable from humans in text-only conversations

1997

### DEEP BLUE

Defeated Garry Kasparov, Chess World Champion

2011

### WATSON

Defeated Ken Jennings & Brad Rutter, the two most successful contestants ever, in Jeopardy, but struggled on clues with few words

2016

### ALPHAGO

Defeated Lee Sedol, "Go" World Champion, runner-up for Science's "Breakthrough of the Year"

### LIBRATUS

Defeated four professional poker players in a No-Limit Texas Hold'em tournament; learned how to bluff

## MESSAGING APPS: THE PERFECT CHANNEL FOR CHATBOTS



**65%** Consumers prefer using a messaging app when contacting a business<sup>2</sup>



**50%** Consumers would make a purchase through a messaging app<sup>2</sup>



Over **50%** Customers expect a business to be open 24/7<sup>3</sup>

### BUSINESSES ARE FOLLOWING CUSTOMERS ONTO MESSAGING PLATFORMS

**90%** of businesses use Facebook to respond to service requests<sup>4</sup>

**5X:** How much more often customers message a company than posting on its Facebook page<sup>4</sup>

The average messaging conversation is **66%** longer than the average page conversation<sup>4</sup>

**10 Hours:** The average time it takes for a company to respond to a message<sup>4</sup>

### BUSINESSES UNDERSTAND THE VALUE OF SOCIAL MESSAGING CHANNELS

Already **30,000** bots on Facebook & Kik<sup>5</sup>

**56%** say engagement through messaging is ROI positive; **58%** say it reduces costs<sup>4</sup>

Chatbots could save **\$174 Billion** across Insurance, Financial Services, Sales, and Customer Service<sup>6</sup>

## CHATBOTS & AI: TWO TYPES OF ENGAGEMENT

### TASK ORIENTED (DECLARATIVE)

Think of a more robust, interactive FAQ

Most common type of chatbot... so far

User-initiated queries with automated responses and conversational menus

Uses Natural Language Processing, but not much Machine Learning

Integrates with backend systems of record

Highly specialized & structured interactions

Most useful in the Support and Service industries

### DATA-DRIVEN & PREDICTIVE (CONVERSATIONAL)

Similar to Amazon's Alexa or to Google Assistant

Can monitor data, intent, & even initiate conversation; is contextually aware!

Personalized based on user profile and past user behavior

Uses Natural Language Processing & Machine Learning

Predictive Intelligence and analytics based on collected data across use cases Integrates with Big Data sources

## POSSIBILITIES WITH CHATBOTS IN GOVERNMENT

### SOME OF THE AREAS IN WHICH CHATBOTS CAN HELP

When will I get my financial aid? — What energy-saving tax credits are available to me?

What types of jobs are available in my area? — Show me any recalls on items I've purchased in the past 90 days.

Where can I find housing assistance for someone who is HIV positive? — What National Parks are in my state?

I'd like to pay my parking ticket. — I'd like to apply for social benefits.

What time is the next bus? — What's the status of my tax refund?

What events and tours are taking place at the National Archives today? — What are the symptoms of Zika virus?

## FIND OUT MORE



**VISIT: ORACLE.COM/BOTS**

For more information on chatbots

<sup>1</sup> BI Intelligence, January 2016 and Statista, April 2016  
<sup>2</sup> "Fifty Essential Mobile Marketing Facts," Forbes.com, November 12, 2013  
<sup>3</sup> "3 Stats That Show Chatbots Are Here To Stay," Venturebeat.com, August 26, 2016  
<sup>4</sup> "Data: A Massive, Hidden Shift Is Driving Companies To Use A.I. Bots Inside Facebook Messenger," BusinessInsider.com, May 12, 2016  
<sup>5</sup> "Kik Users Have Now Sent Branded Chatbots Nearly 2 Billion Messages," Adweek.com, August 4, 2016;  
<sup>6</sup> "There Are Now More Than 11,000 Bots On Facebook Messenger," TheVerge.com, July 1, 2016  
<sup>6</sup> BI Intelligence, McKinsey & Company, and the US Office of Personnel Management, 2016