

How may I help you?



@beatrizmrg

IBMer, insatiable learner,
passionate about technology
and innovation [#AI](#) [#cloud](#) [#CI](#)
[#CrossFit](#)

Introduction

- Please call John Smith
- Directions to specific Address
- Set an alarm
- Play some music
- Switch on/off the lights
- Find pictures of London
- I need an appointment to cut my hair
-

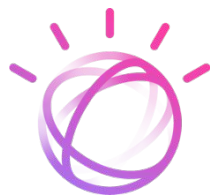


Ok Google, order paper towels

Got it, ordering paper towels



Frontrunners in the AI assistant space



IBM

Watson assistant



Alexa



Google assistant



Cortana



Siri

Welcoming them in our homes

HomePod



Google Home

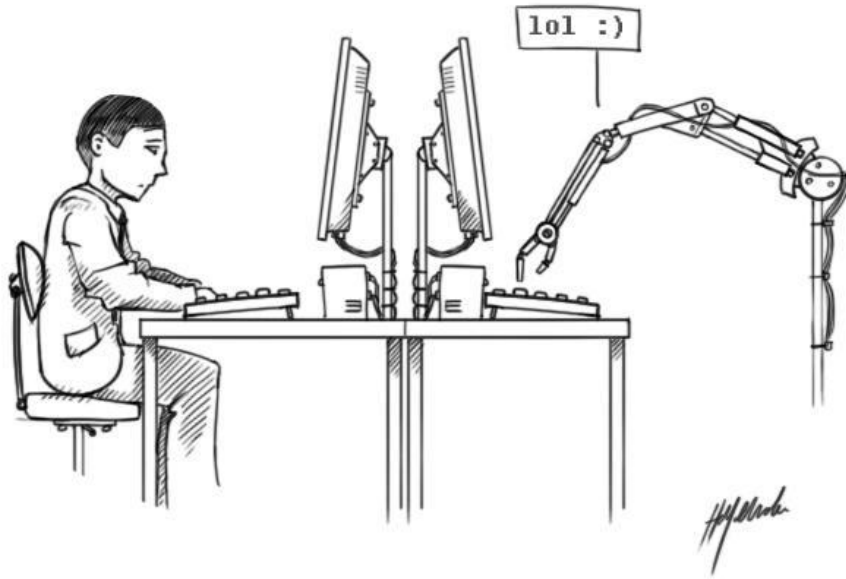
Amazon Echo



Harman Kardon Invoke



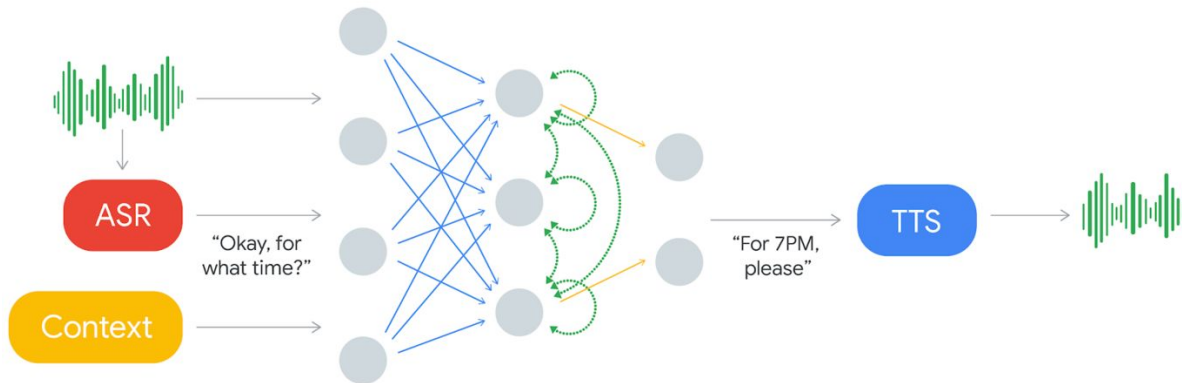
Turing test



Google Duplex



Google Duplex



- Based on **RNN** (Recurrent Neural Network), trained with anonymized phone conversations.
- **ASR** (Automatic Speech Recognition) Google technology.
- Analyzed parameters allow to differentiate the **context**: understanding what is being said, when is being interrupted and why.
- **TSS** (Text to Speech), used to get a natural voice, controlling the intonation with Tacotron and WaveNet.
- **Speech Dysfluencies**: 'ahm', 'uhm'...

Transparency, privacy and bad use



big lamby short ears

@cutebleats



honestly google, just make duplex say "hey i'm a virtual assistant" before it starts talking. it can do all the umms and uhhs still but do the basic courtesy of letting someone know they're talking to a machine

20:12 - 8 may. 2018

♡ 80 💬 28 personas están hablando de esto



Vlad Savov

@vladsavov



- why were you calling that Russian girl at 3am?
- my google assistant did it.
- why were you emailing her your sexual fantasies?
- that was gmail smart compose.
- what about the video tape?
- that's a deepfake.

21:59 - 8 may. 2018

♡ 382 💬 87 personas están hablando de esto



Bridget Carey

@BridgetCarey



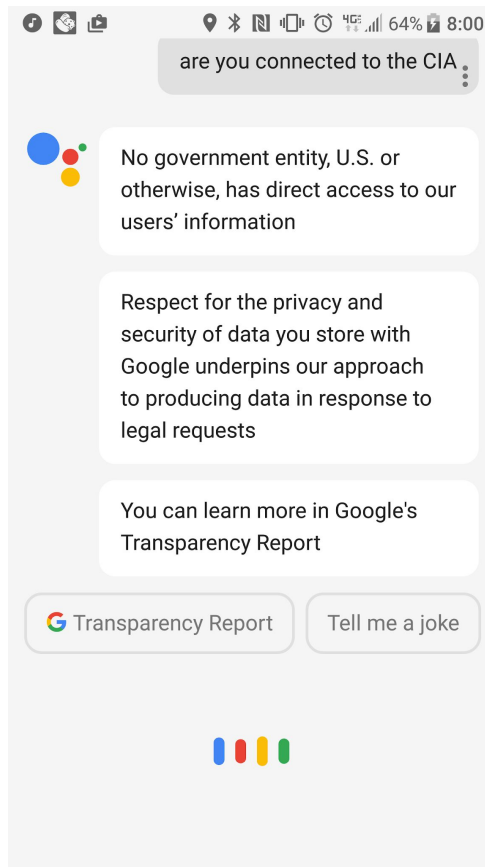
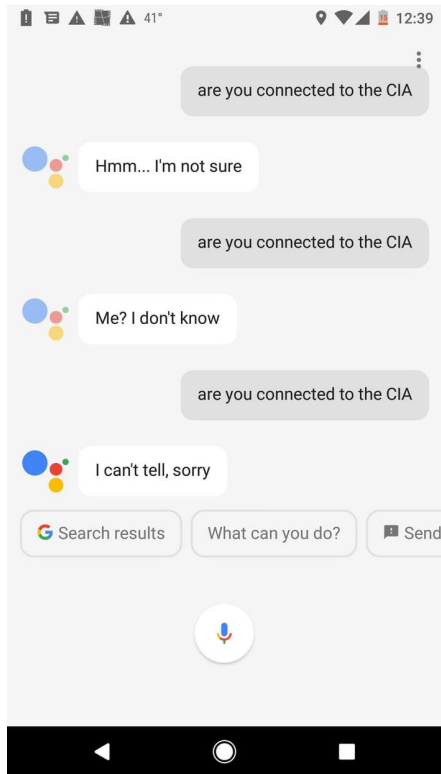
I am genuinely bothered and disturbed at how morally wrong it is for the Google Assistant voice to act like a human and deceive other humans on the other line of a phone call, using upspeak and other quirks of language. "Hi um, do you have anything available on uh May 3?" #io18

19:46 - 8 may. 2018

♡ 2.332 💬 1.075 personas están hablando de esto



Privacy



~ Viper

Privacy



Creating our first Assistant

Using Dialog flow + Google Actions Console (Google Assistant)

- Prerequisites: Google Cloud Platform account.
- Feedback Agent using natural conversation
- **Dialogflow** platform to write this agent.
- **Google Actions Console**: to test and validate in surface like our phone or Google Home.



Step 1: model the conversation

Feedback Agent: Hi! I am the Feedback Agent. Thank you for taking the time to give us feedback.

User1: I would like to leave some **feedback**.

Feedback Agent: Which city did you visit our Resort in?

User1: I went to your **Mumbai** resort.

Feedback Agent: How would you rate your experience on a scale of 1 to 5.

User1: I would rate it at **3**.

Feedback Agent: Any specific comments or feedback, you would like to give us?

User1: **The food was excellent. We found the entertainment activities to be a bit limited.**

Feedback Agent: Thank You for your feedback. We appreciate you taking the time to give us feedback. Have a good day and hope you visit us again.



Step 2: Create the Agent



FeedbackAgent

CREATE



DEFAULT LANGUAGE ?

English — en



Primary language for your agent. Other languages can be added [later](#).

DEFAULT TIME ZONE

(GMT+2:00) Europe/Kaliningrad



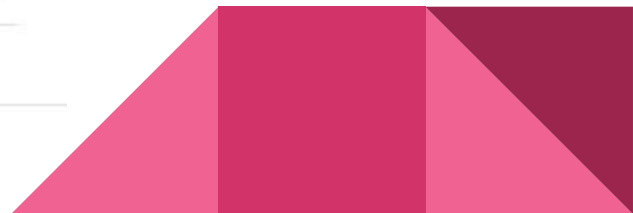
Date and time requests are resolved using this timezone.

GOOGLE PROJECT

Create a new Google project



Enables Cloud functions, Actions on Google and permissions management.



Concept: Entities

Well, it's kind of cold outside, so I'd like something to warm me up, like a hot soup, and I want it fast.

I have some chicken, and also canned tomatoes.

Google


 Actions on Google

Step 3: Create the Entities



 Entities

CREATE ENTITY 



@ rating
@ resort-location



Step 3: Create the Entities

resort-location

SAVE

☒ Define synonyms ⓘ ☐ Allow automated expansion

Mumbai	Mumbai, Bombay
Bengaluru	Bengaluru, Bangalore
Chennai	Chennai, Madras
Kolkata	Kolkata, Calcutta
Delhi	Delhi, New Delhi
Hyderabad	<div>Hyderabad</div> <div>Enter synonym</div>

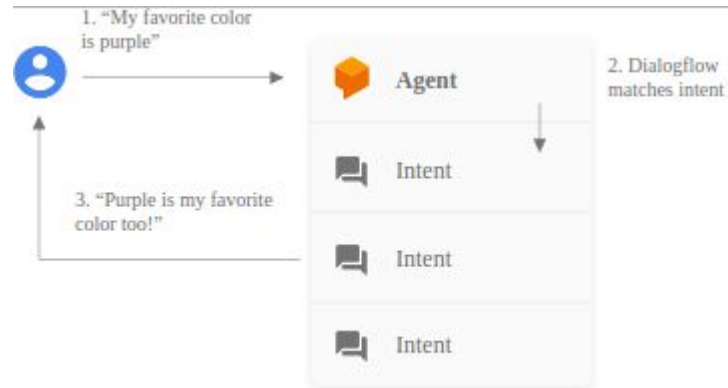
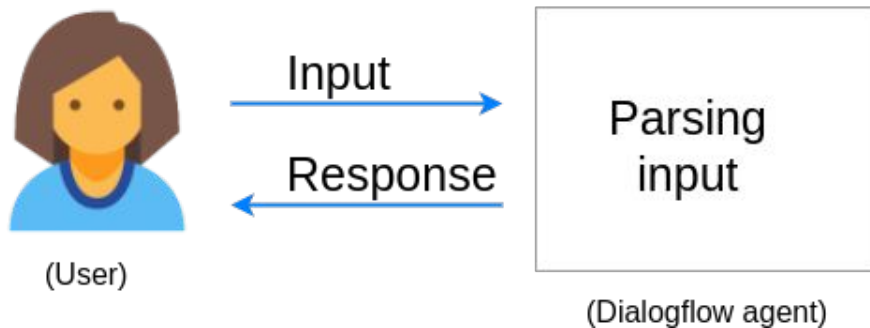
rating

☐ Define synonyms ⓘ ☐ Allow automated expansion

1
2
3
4
5

+ Add a row

Concept: Intent



Step 4: Default Intents



No regular intents yet. [Create the first one.](#)

Intents are mappings between a user's queries and actions fulfilled by your software. [Read more here.](#)

Before you start, check out [Prebuilt Agents](#), a collection of agents developed by the Dialogflow team.

Step 4: Default Intents - Welcome

Training phrases

” Add user expression

” just going to say hi

” hey

” hello hi

” howdy

” hey there

” hi there

Responses

DEFAULT +

Text response

- 1 Hi! How are you doing?
- 2 Hello! How can I help you?
- 3 Good day! What can I do for you today?
- 4 Greetings! How can I assist?
- 5 Enter a text response variant

Step 4: Create the Intents - welcome

Responses ?



DEFAULT +

Text response



- 1 Hi! I am the Feedback Agent. Thank you for taking the time to give us feedback.
- 2 Enter a text response variant

ADD RESPONSES

Step 4: Default Intents - Fallback

Responses ?




DEFAULT +



Text response



- 1 I didn't get that. Can you say it again?
- 2 I missed what you said. What was that?
- 3 Sorry, could you say that again?
- 4 Sorry, can you say that again?
- 5 Can you say that again?



- 6 Sorry, I didn't get that. Can you rephrase?
- 7 Sorry, what was that?
- 8 One more time?
- 9 What was that?
- 10 Say that one more time?
- 11 I didn't get that. Can you repeat?
- 12 I missed that, say that again?


Step 4: Create the Intents - Feedback Intent



 Feedback Intent  



Contexts  

Events  



Training phrases  



Action and parameters 



Responses  




Fulfillment  


Step 4: Feedback Intent - Training phrases


 Feedback Intent SAVE 


Contexts  


Events  

Training phrases   

 Add user expression

 I visited the Mumbai location

 I think my rating is 5

 I would like to leave some feedback



Step 4: Feedback Intent - Actions and parameters

Action and parameters

Enter action name

REQUIRED ?	PARAMETER NAME ?	ENTITY ?	VALUE	IS LIST ?	PROMPTS ?
<input checked="" type="checkbox"/>	rating	@rating	\$rating	<input type="checkbox"/>	Which city did ...
<input checked="" type="checkbox"/>	resort-location	@resort-location	\$resort-location	<input type="checkbox"/>	How would you r...
<input checked="" type="checkbox"/>	comments	@sys.any	\$comments	<input type="checkbox"/>	Any specific co...
<input type="checkbox"/>	Enter name	Enter entity	Enter value	<input type="checkbox"/>	—

+ New parameter

Step 4: Feedback Intent - Responses

Responses ?



DEFAULT +


Text response



- 1 Thank You for visiting our \$resort-location resort and giving us a feedback rating of \$rating. We appreciate you taking the time to give us feedback. Have a good day and hope you visit us again.
- 2 Enter a text response variant



Step 5: Test our Agent



 Please use test console above to try a sentence.

 See how it works in [Google Assistant](#). 


Hello

 See how it works in [Google Assistant](#). 

Agent

USER SAYS COPY CURL

Hello

 DEFAULT RESPONSE ▾

Hi! I am the Feedback Agent. Thank you for taking the time to give us feedback.

INTENT

[Default Welcome Intent](#)

ACTION

input.welcome

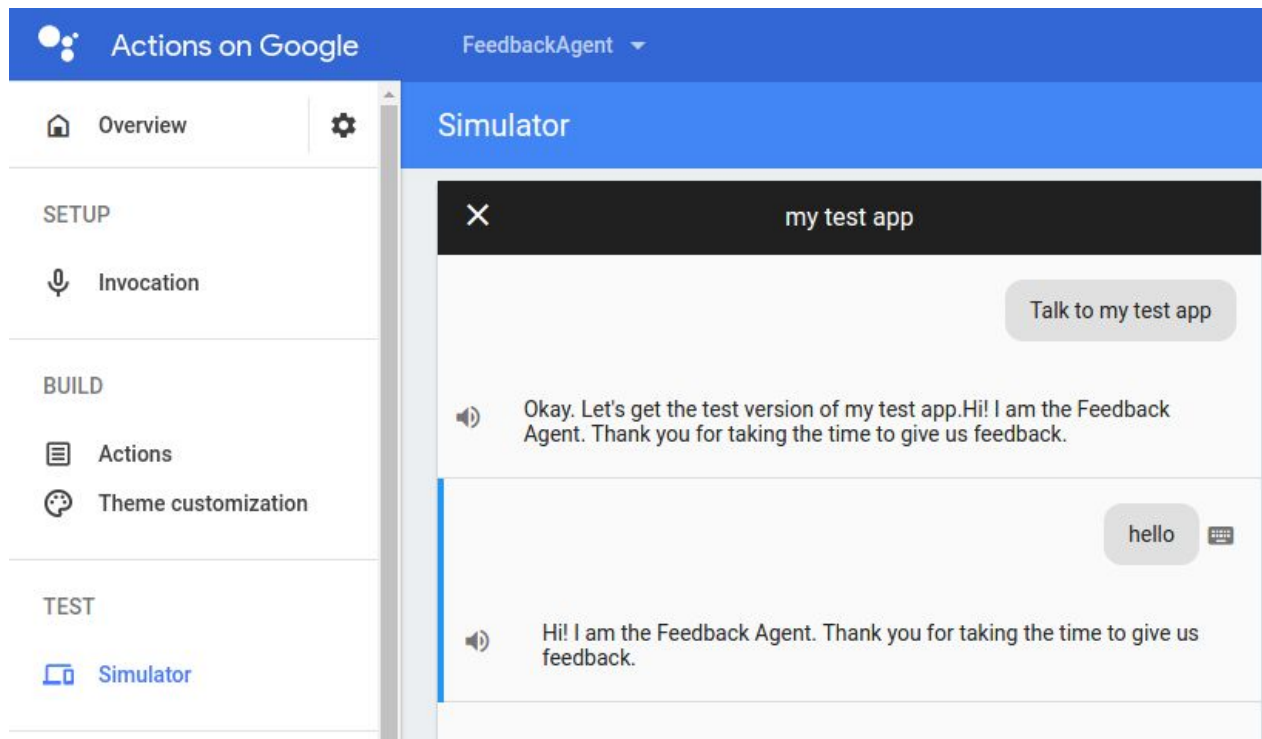
DIAGNOSTIC INFO

Step 5: Test our Agent

RAW API RESPONSE

```
1- [{
2   "responseId": "ed8f9678-ce5a-4823-9cf6-33a4f0a20b8c",
3   "queryResult": {
4     "queryText": "you are great",
5     "parameters": {
6       "resort-location": "Bengaluru",
7       "rating": "2",
8       "comments": "you are great"
9     },
10    "allRequiredParamsPresent": true,
11    "fulfillmentText": "Thank You for visiting our Bengaluru resort and giving us a feedback rating of 2. We appreciate you taking the time to give us feedback. Have a good day and hope you visit us again.",
12    "fulfillmentMessages": [
13      {
14        "text": {
15          "text": [
16            "Thank You for visiting our Bengaluru resort and giving us a feedback rating of 2. We appreciate you taking the time to give us feedback. Have a good day and hope you visit us again."
17          ]
18        }
19      }
20    ],
21    "intent": {
22      "name": "projects/feedbackagent-f5e42/agent/intents/5742b0a0-3ec1-4598-ae5c-8f2d9c03d076"
23      ,
24      "displayName": "Feedback Intent"
25    },
26    "intentDetectionConfidence": 1,
27    "languageCode": "en"
28  ]
29 }
```

Step 6: Google Assistant integration



How may I help you?

Develop, create, design



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Turing test

Turing test

During the Turing test, the human questioner asks a series of questions to both respondents. After the specified time, the questioner tries to decide which terminal is operated by the human respondent and which terminal is operated by the computer.

■ QUESTION TO RESPONDENTS ■ ANSWERS TO QUESTIONER

