



Dr. Potasio (Dr.K.) un Nuevo asistente clínico



ASISTENTE VIRTUAL PARA LA TOMA DE DECISIONES

Ignacio Martinez Soriano

Infosicación de App's Médicas

- ▶ Aplicaciones móviles para la toma de decisiones:
 - ▶ App's Calculadoras clínicas.
 - ▶ Apps' Gestión de protocolos.
 - ▶ App's Diccionarios médicos.
 - ▶ Apps' Documentación Clínica



Nuestra propuesta: Dr.Potassio (Dr.K)

- ▶ Crear un Nuevo entorno UX.
- ▶ Generación de un ChatBot o asistente virtual, que englobe todas las App's
- ▶ Poder interactuar con el bot , para agilizar el trabajo diario
- ▶ Que el Bot, aprenda nuestras necesidades y nos ayude
- ▶ Nos guie, durante la búsqueda de la solución.

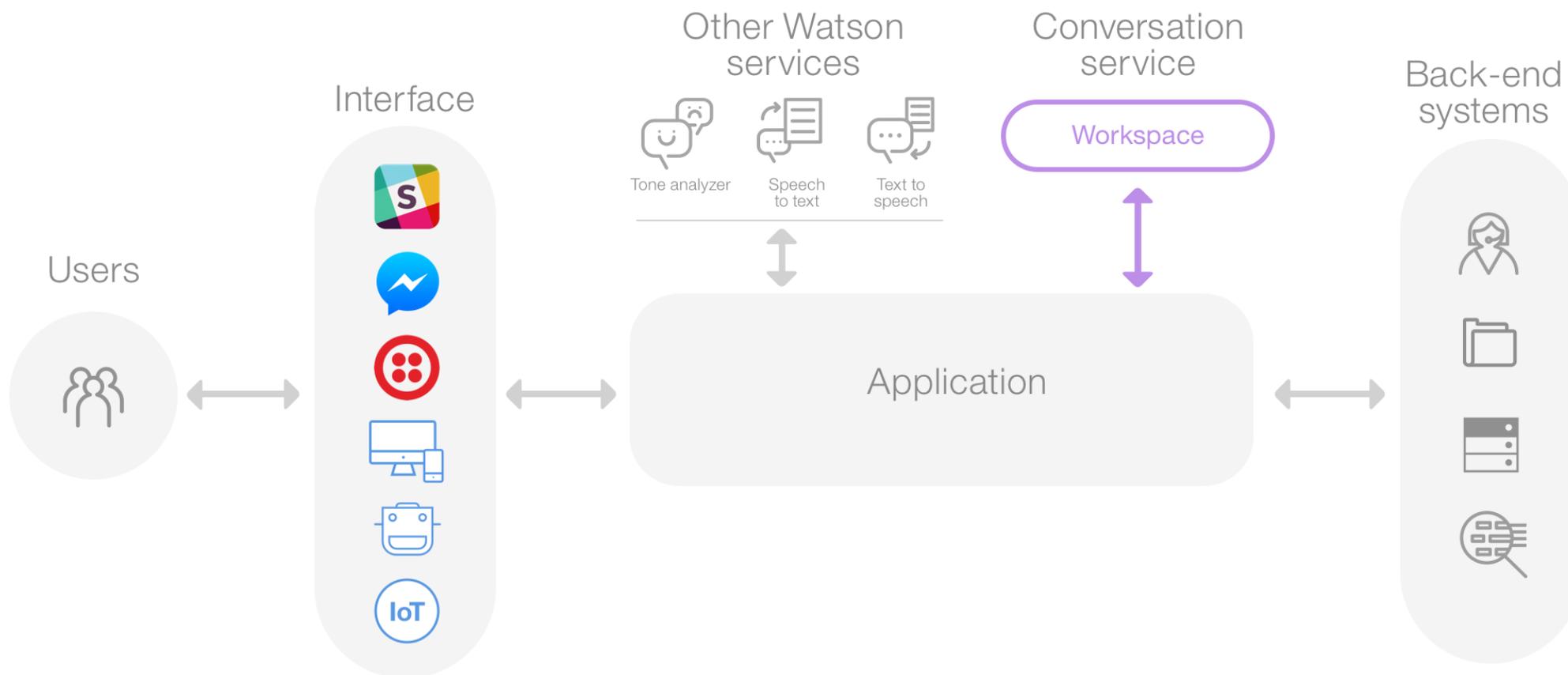


Metodología desarrollo del ChatBot

- ▶ Utilización de un CORE principal:
 - ▶ IBM Watson conversation
- ▶ Cliente Final, pudiendo elegir distintos sistemas de chats:
 - ▶ Slack
 - ▶ Messenger Facebook



Arquitectura IBM Watson Conversation



Servicios IBM Watson



AlchemyAPI

An AlchemyAPI service that analyzes your unstructured text and image content

IBM



Conversation

Add a natural language interface to your application to automate interactions with users

IBM



Discovery

Add a cognitive search and content analytics engine to applications.

IBM



Document Conversion

Converts a HTML, PDF, or Microsoft Word™ document into a normalized HTML, plain text, or JSON

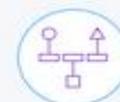
IBM



Language Translator

Translate text from one language to another for specific domains.

IBM



Natural Language Classifier

Natural Language Classifier performs natural language classification on question texts

IBM



Personality Insights

The Watson Personality Insights derives insights from transactional and social media content

IBM



Retrieve and Rank

Add machine learning enhanced search capabilities to your application

IBM



Speech to Text

Low-latency, streaming transcription

IBM



Text to Speech

Synthesizes natural-sounding speech from text.

IBM



Tone Analyzer

Tone Analyzer uses linguistic analysis to detect three types of tones from text

IBM



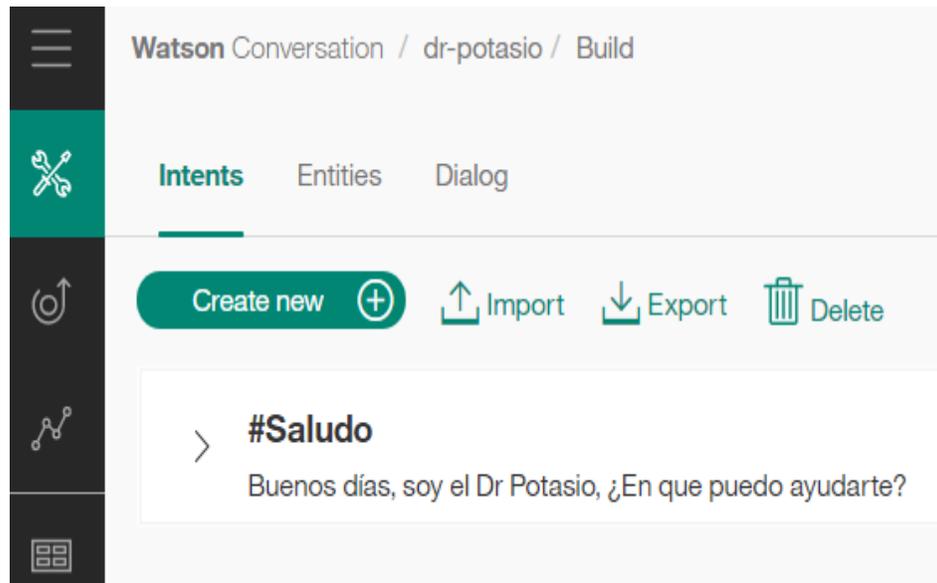
Tradeoff Analytics

Helps make better choices under multiple conflicting goals. Combines smart algorithms with human expertise

IBM

Estructura de un Chat-Bot. Partes 1/2

Intents: Intenciones



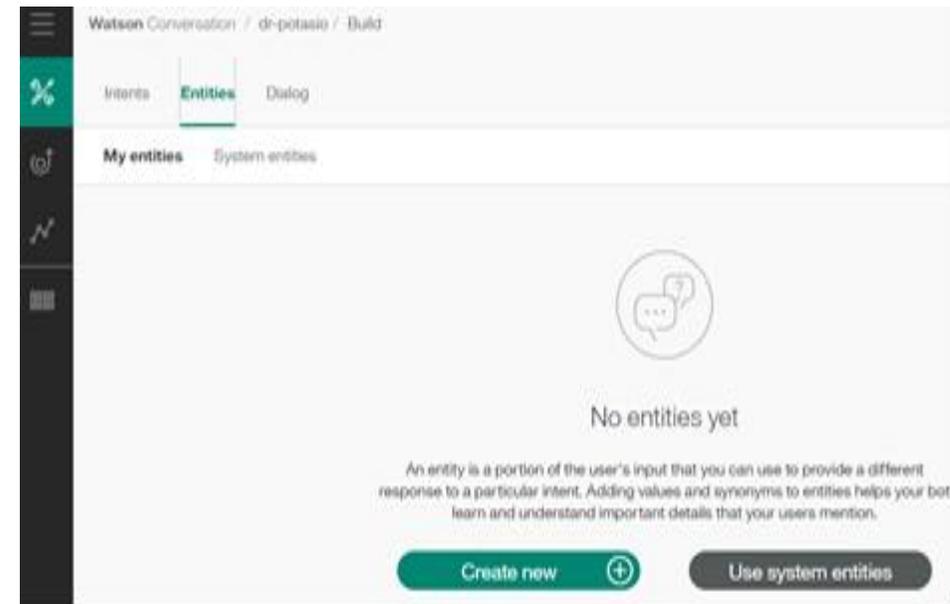
Watson Conversation / dr-potasio / Build

Intents Entities Dialog

Create new (+) Import Export Delete

> #Saludo
Buenos días, soy el Dr Potasio, ¿En que puedo ayudarte?

Entity: Entidades palabras clave



Watson Conversation / dr-potasio / Build

Intents Entities Dialog

My entities System entities

No entities yet

An entity is a portion of the user's input that you can use to provide a different response to a particular intent. Adding values and synonyms to entities helps your bot learn and understand important details that your users mention.

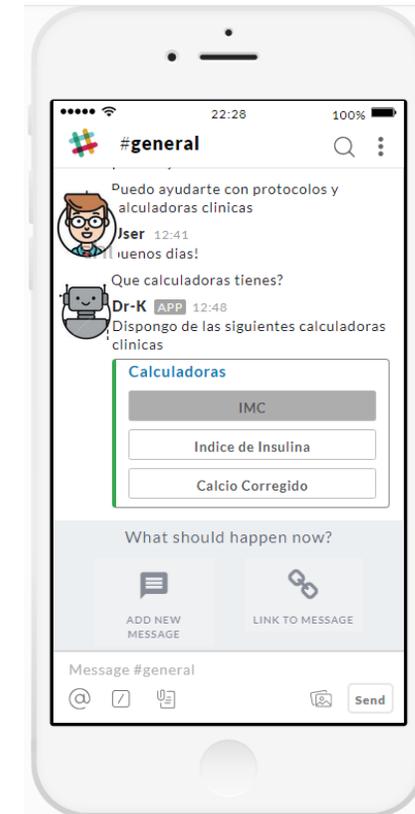
Create new (+) Use system entities

Estructura de un Chat-Bot. Partes 2/2

Dialog - Flow

The screenshot shows the 'Dialog' tab in the Watson Conversation Builder. The interface includes a sidebar with navigation icons and a main workspace. At the top, it says 'Watson Conversation / DR-Potasio / Build'. Below this, there are tabs for 'Intents', 'Entities', and 'Dialog'. Two buttons are visible: 'Add node' (blue) and 'Add child node' (grey). The main workspace shows a dialog flow for 'DR-Potasio' with two nodes:

- Node 1:** 'Bienvenido' with the response 'welcome'. It has '1 Response / 0 Context set'.
- Node 2:** 'En otras cosas' with the response 'anything_else'. It has '1 Response / 0 Context set'.

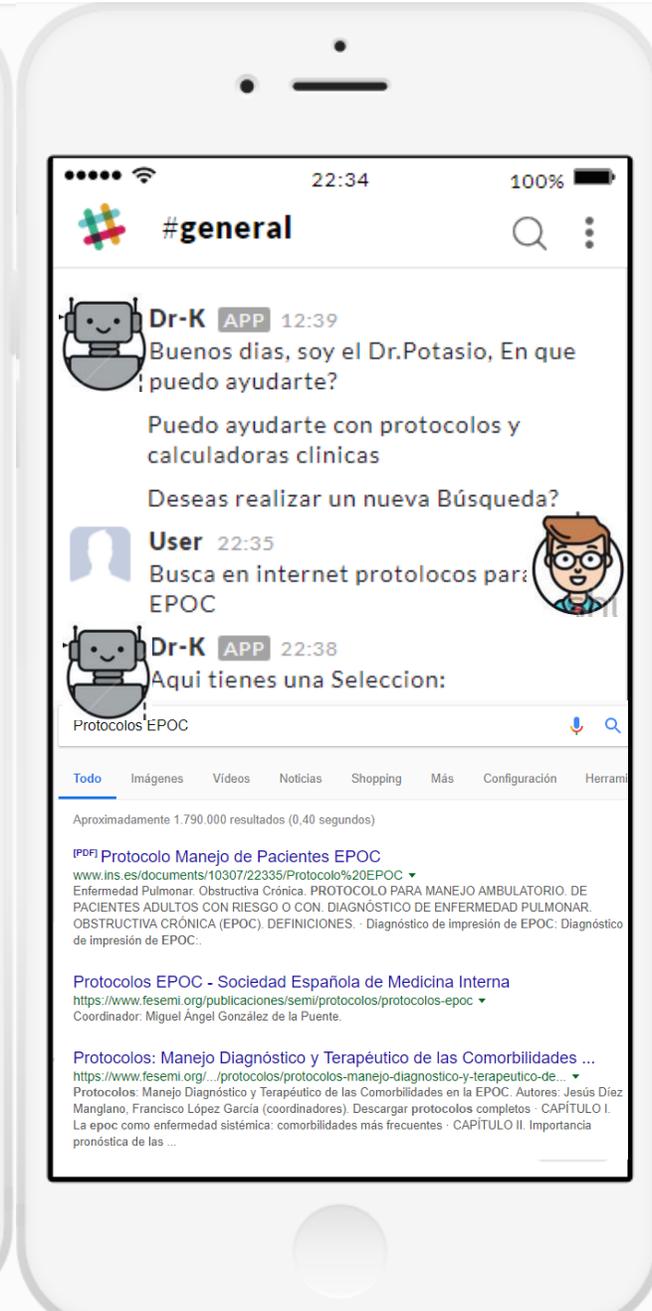
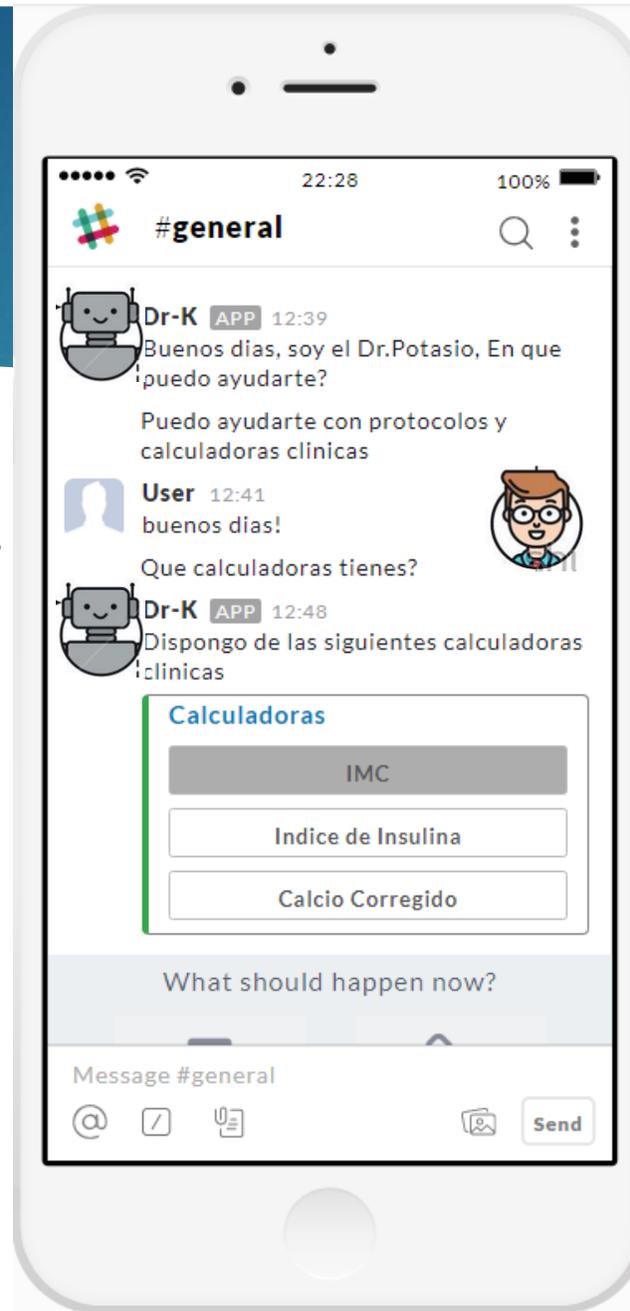


Resultados:

interacción con el Bot amigable

Resultados directos y rapidos

Facilidad de USO



Bibliografía:

- ▶ Imagenes Creadas por: (Creado por Photoroyalty - Freepik.com)
- ▶ IBM Cloud Watson Conversation

[1] <http://www.merckmanuals.com/es-us/hogar/resourcespages/self-assessment-tools>

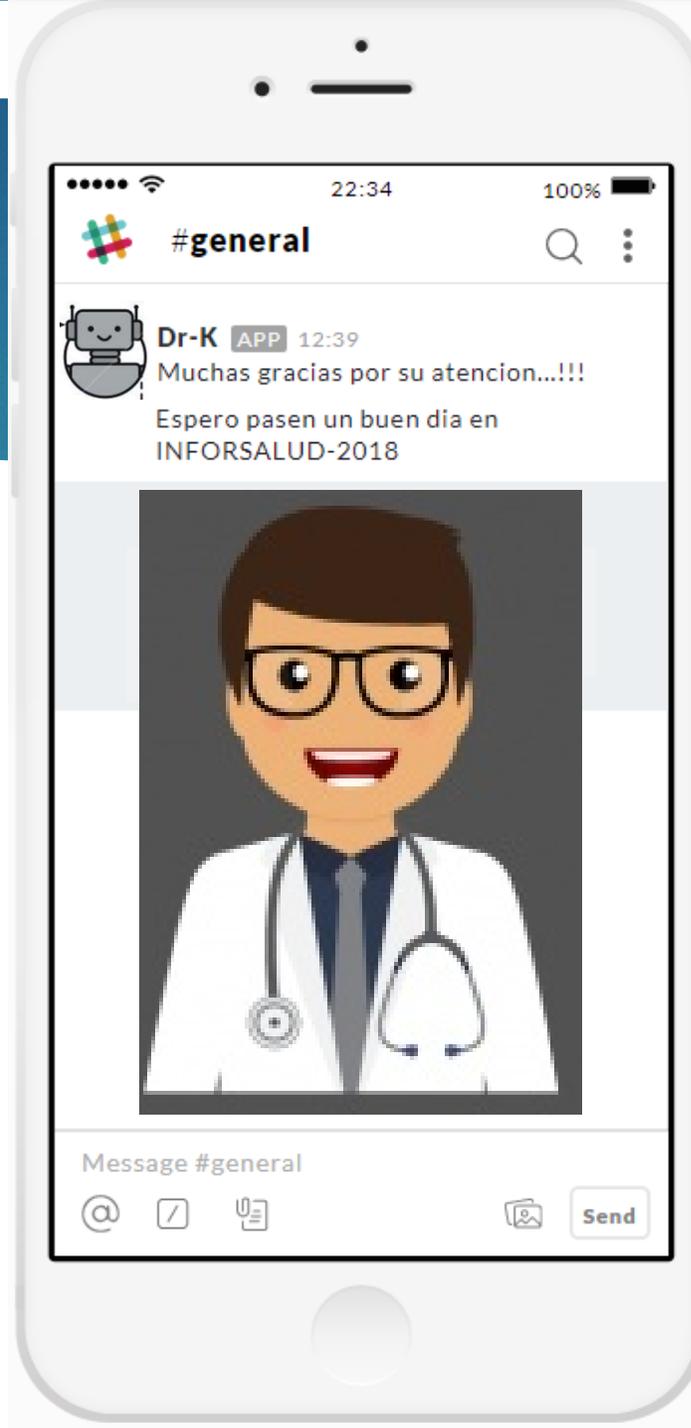
[2] <http://www.semergencantabria.org/calculadoras.htm?17>

[3] Guia de desarrollo ChatBot con IBM Watson

(<https://console.bluemix.net/docs/services/conversation/getting-started.html#gettingstarted>)

Muchas gracias por su Atencion

Gracias
Por Su
Atencion



Ignacio Martinez Soriano
Ignacio.Martinez@carm.es