Chat bots and virtual assistants
Journal

Aritz Bercher

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Abstract

I find the topic of chat bots and virtual assistants really cool. I will try to gather here some information found on the web.

1 Limitations of current bots

In this section, I will try to list current limitations that the bots seem to have. Typically things that humans would do right but that bots do wrong:

1. (01.03.19) I'm not sure that a bot can easily understand that it has done a mistake and not repeat it again. If there is a term which is ambiguous, like "backhoe" in the riggs app and the computer tries to react to meaning 1, and the user says "no, I meant meaning 2", I wonder how the bot could understand.

2. (01.03.19) I wonder if a bot can learn to fit its user need while talking with him/her.

2 Journal

30.04.18 ∼ Chat bots: Tai, Xiaoice, Named entity recognition, A nice blog about NLP
It seems that some fairly advanced chatbots already exist:
Wiki: Xiaoice
Wiki: Tay

01.05.18 ∼ Google assistant, Dialogflow (API.AI), some french companies making chatbots
I discovered the company **Dialogflow** owned by google:
Wiki: Dialogflow
and also read about **Google assitant**:
Wiki: Goolge Assitant

I also discovered the following french companies/start-ups specialized in chatbots:

- Zelros: `http://www.zelros.com/`

- recast ai: `https://recast.ai/`

- golembot: `http://golembot.net/`

02.05.18   ∼ A Coursera course to build your own bot
Roman recommended this course about NLP:
`https://www.coursera.org/learn/language-processing`
In the description of the course, they say that the final project consist in building your own chatbot.

09.01.19   ∼ 5 levels of Chat bots

This page explains what are the 5 levels of chat bots. For now we are currently reaching level 3 (Google is at least):
`https://www.oreilly.com/ideas/the-next-generation-of-ai-assistants-in-enterprise`

01.01.19   ∼ Conversation One: The anatomy of a modern conversation application

Vijeta shared this link which gives an idea of concepts like **ontology** (which from my understanding comes down to the definition of intents and entities related to the domain), and how to implement a DM using the context:
`https://conversation.one/2017/10/25/anatomy-modern-conversational-application/`

06.01.19   ∼ Rasa Core and Interactive learning

In this article:
`https://blog.rasa.com/a-new-approach-to-conversational-software/`
it is explained that Rasa developped a way to create a DM using "interractive learning" which is a kind of reinforcement learning with feedback at every message, to build a good probabilistic model. I guess that it is good for the intent classification. It seems to be quite easy to use.