Xatkit – The Low-code chatbot development platform

What is Xatkit?
Xatkit ([https://xatkit.com/](https://xatkit.com/)) is the easiest way to create advanced (chat)bots. Xatkit is an open source platform that allows anyone to easily create and deploy single chatbots using our high-level chatbot definition languages (textual DSLs). In our approach, chatbots can be defined without writing code (what it’s known as a low-code or no-code approach to software development). Xatkit takes care of translating these chatbot specifications to the actual running bot.

This specification involves a set of **intents** (each intent represents a possible intention the client has when interacting with the bot) and for each intent the corresponding reaction to be executed (either a text reply as part of the conversation, the call/s to an external service or both). Intents are recognized via a Natural Language Understanding (NLU) component that takes as input the user sentences and tries to match them against the expected intents.

The same bot can be deployed over a number of platforms without any rewriting (e.g. a company could first offer the chatbot over Facebook messenger and then decide to add also Telegram support without needing to redefine the bot behavior). A set of predefined platforms are prepackaged with the platform. Once the bot is defined and the client has chosen the set of platforms to deploy the bot over, the Xatkit runtime component “compiles”, deploys and executes the bot.

The following figure tries to summarize this process.

![Diagram](image)

**A More advanced Natural Language Understanding**
Currently, Xatkit is only connected to DialogFlow and a default regular expression matched. Moreover, the platform logs all user interactions with the chatbot but so far does not provide any analysis of those logs in order to improve the NLU component.

Next steps in this area would be:
- Creating a connector for other NLU providers like IBM Watson or Microsoft LUIS
- Developing a visualization for the chatbot logs that helps understanding what sentences were not understood by the chatbot, at what point in the conversation the user gave up,…
- A semi-automated self-learning component that based on the analysis of the logs suggests improvements in the chatbot intents training examples for an optimal matching.

Contact and additional info
Jordi Cabot – Jordi.cabot@icrea.cat
Gwendal Daniel - gdaniel@uoc.edu