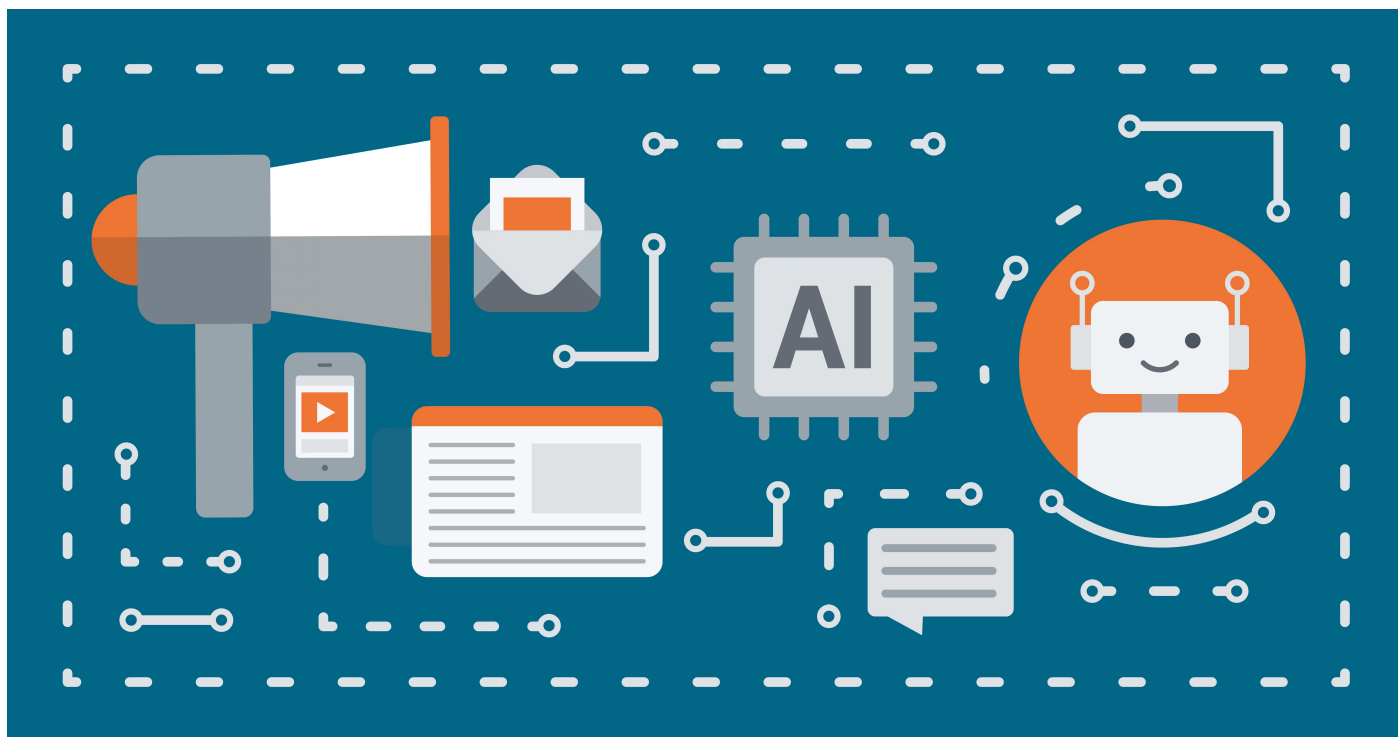# Want to build an AI-powered marketing chatbot? You need the right data

Chatbots are a popular tool for companies in a variety of industries including marketing, healthcare, banking, and travel. Chatbots are popular with businesses and consumers for many reasons. One reason is that chatbots are available to answer questions and provide information to consumers 24/7. Chatbots can also have conversations with thousands of people at once expanding the customer service capacity of an organization significantly.

90% of the chatbots available today are rules-based and able to engage in short, limited conversations. If you want to build a chatbot that engages consumers in long, human-like conversations about a specific domain like

marketing or healthcare, you need artificial intelligence (AI). You also need data.

Not all chatbots are powered by AI, but all chatbots are driven by data. You need the right data for nearly every part of the chatbot building process.

You need domain data to build the model

If you want to build an advanced AI-powered marketing chatbot, you need a large volume of marketing domain data. And that data must be normalized so that the chatbot can understand the intents of users. Understanding user intent is crucial for the chatbot to be successful.

For example, if you build a chatbot to help customers throughout the sales funnel, the chatbot must not only be trained on the right domain data but also understand the intent of users as they proceed through the sales funnel. The chatbot could be trained to help consumers discover a new product or answer questions about specific products and services. The chatbot could be programmed to recommend marketing materials and to upsell to consumers. The marketing team could use data collected by the chatbot to figure out which leads are most promising.

If you want to build a chatbot that is conversational and more than a series of canned responses, then you need to incorporate natural language understanding (NLU). NLU allows a chatbot to extract the intents and entities from each user request.
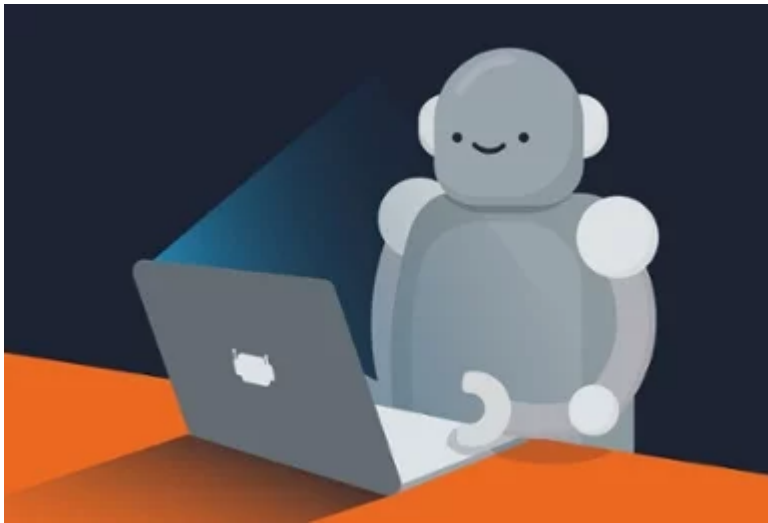
NLU requires data preparation

NLU allows a chatbot to understand a range of user [utterances](#) and intents. NLU involves a great deal of data preparation. Some conversational interface platforms use machine learning and AI to map user phrases (utterances) to programmed intents. Machine learning and AI allow chatbots to understand many variants of how users phrase questions. Conversational interface platforms that use machine learning and AI include [Amazon Lex](#), [Google Cloud Dialogflow](#), and [Microsoft Bot Framework](#) (with the help of [Cognitive Services](#)).

Some chatbots use a [neural network](#) which requires words to be represented as vectors for the network to recognize the words. A word vector represents the meaning of a word and helps applications analyze the relationships between words and sentences. Word vectorization can be achieved a number of ways such as using [Gensim](#) or TensorFlow with the [word2vec](#) model.

Data from chatbot users

The chatbot, if AI drives it, would also learn from data provided by users. AI chatbots learn from user interactions. Which means the quality of the chatbot is directly impacted by the quality of the data inputted by users. One of the most infamous examples of a chatbot going awry from user interactions is the defunct Microsoft Tay. The chatbot was [corrupted](#) by offensive and racist input from users. The quality of data from user interactions must be of high quality for the chatbot to develop properly.

You need the right data

Nearly every aspect of building an AI chatbot requires quality data- from building the model, to incorporating NLU, to training the chatbot to understand user utterances and intents. If you want to create an AI chatbot for marketing or any other industry, you need the right data.

Janet Wagner is a Zylotech contributing writer.

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