



Botium

Natural Language Processing (NLP) Training & Testing

Achieve Speed & Quality with Automated Functional & Regression Testing



Analyze Your Chatbot's Ability to Understand

Core to any chatbot is the Natural Language Understanding (NLU) engine behind it. Botium delivers rich, static, and dynamic analytics on the training data, enabling you to pinpoint flaws immediately, and giving you the opportunity to improve your chatbot's performance.



Annotate and Augment Testing and Training Data

The importance of training data – and specifically clean training data – in getting that NLU engine to work is essential. It is both a question of quality as well as quantity. If you identified issues in your NLU performance it's time to augment that training data to improve the NLU performance.



Train Your NLU and Validate Improvements

For your convenience and faster feedback cycles, Botium features a built-in Test Case Wizard to enrich your training data and sync it back to your NLU engine of choice so you can start the training process quickly. This Test Data Wizard allows you to easily launch new test sessions that incorporate refined and retrained NLP models so you can determine if your changes have improved your chatbot's performance.

In the process of improving human to machine communication, a new generation of NLP-powered chatbots has emerged, with the sole purpose of understanding and serving customers better. This new breed of chatbots keeps track of information throughout the conversation, and - perhaps most importantly - they learn and adapt their behavior as they go. This ongoing development is amazing and sophisticated, but it has also posed new challenges for chatbot quality assurance.

To ensure that an NLP-powered chatbot doesn't go awry, you must systematically and continuously train and test its understanding of customer intents using real-world conversation data being generated across channels. In order to deliver higher accuracy rates, you need to understand how your NLP text, or voice-based chatbot operates and implement an effective testing strategy.

Botium tests and analyzes your chatbot training data, and provides guidance and resources that continuously improve your chatbot's ability to understand, as customers pose new questions and requests in fluid, flawed, and unexpected ways.



Static and dynamic analytics are an essential part of Botium to generate in-depth insights and identify flaws in the training data

Static Analytics

Get insights on how the NLP engine is performing with the data it has been trained on without execution. In other words, static analytics show you any flaws that exist within the training data itself.

Dynamic analytics

This type of analytics gives you analysis and evaluation of the chatbot's NLP metrics during runtime. It's testing both the fundamentals, while also revealing any chatbot-specific defects.

Botium visualizes the NLP performance metrics, then analyzes and benchmarks your chatbot training data to understand where it does or doesn't work and why. With these insights and guidance on how to improve, you can make informed decisions about how you develop and enhance your chatbot's performance.

Botium NLP Testing Includes



NLP Benchmark Analysis

Botium is able to compare and assess the performance of different NLP/NLU models to ease the choice between vendors for your specific use case.



Intent Confidence Distribution Chart

This histogram tells if there are poorly-performing user examples in a test session. For example, this chart will show you if the NLP engine returned a low confidence score.



Confusion Matrix

Botium's Confusion Matrix shows an overview of the confusion between predicted intent vs. the expected intent.



Suggestions

Botium will detect issues with the test results and suggest actions, which will improve the overall NLU performance.



Download NLP Results

All NLP results are downloadable, which contains a summary of all test activities and final test results of your project.