

# IBM Watson

# Natural Language Understanding

---



# Contents

<b>What is IBM Watson NLU?</b>	<b>04</b>
IBM Watson NLU Overview	05
Value Proposition	06
<b>How does it work?</b>	<b>07</b>
How it Works	08
Highlights	09
<b>What are the main features?</b>	<b>10</b>
Features	11
Features (cont.)	12
<b>What are the use cases?</b>	<b>13</b>
Applications	14
Use Cases	15
<b>What are some case studies?</b>	<b>13</b>
Applications	14

# Forrester recognizes IBM's leadership in AI-Based Text Analytics Platforms

“IBM offers a broad portfolio of text analytics products for various buyers. Watson Explorer and Watson Discovery are, respectively, the on-premises and cloud-native turnkey solutions; IBM Watson Natural Language Understanding (NLU) is a cloud-based API service for embedding advanced text analytics into applications.”

FIGURE 2 Forrester Wave™: AI-Based Text Analytics Platforms, Q2 2018

## THE FORRESTER WAVE™ AI-Based Text Analytics Platforms Q2 2018



Source: Forrester Research Inc. “The Forrester Wave™: AI-Based Text Analytics Platforms, Q2 2018, by Boris Evelson with Srividya Sridharan, Robert Perdoni, June 14, 2018.

# What is IBM Watson NLU?

## The Problem:

Inability to mine unstructured data and lack of skills in machine learning

## The Solution

The IBM Watson Natural Language Understanding service enables developers to extract insights from unstructured text to power a new generation of cognitive apps.

## The Result

Lost revenue, missed opportunities, increased costs

# IBM Watson NLU



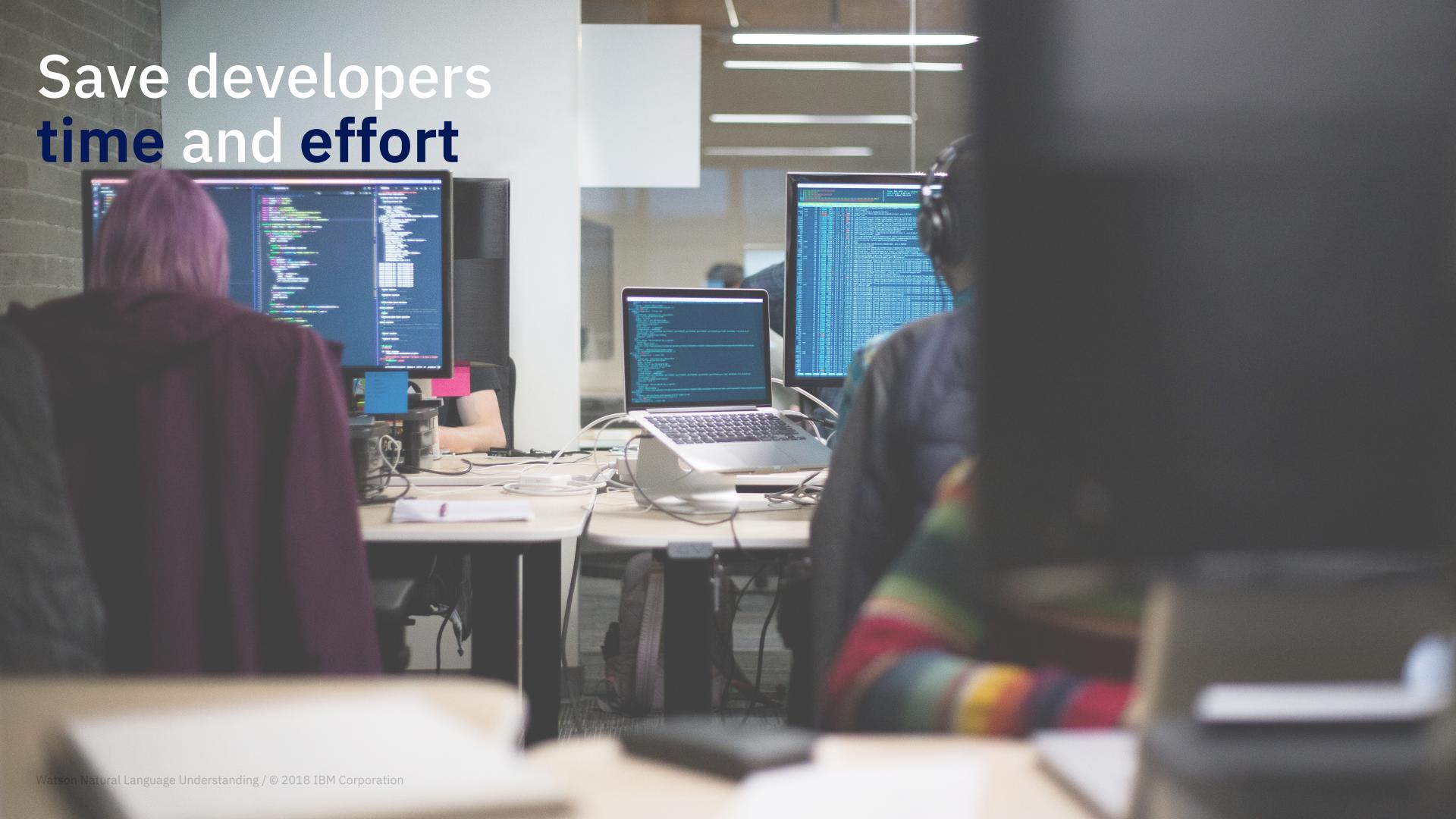
Natural language processing for advanced text analysis

A sophisticated suite of natural language processing capabilities to analyze text and extract meta-data from content such as concepts, entities, keywords, categories, sentiment, emotion, relations, semantic roles, with options for customization to specific industries and domains.

A photograph of a woman from behind, wearing a red quilted jacket and a yellow backpack, standing in a bookstore. She is looking at a large stack of books on a shelf. The shelves are filled with books, and a small statue of a figure is visible on one of the shelves. The lighting is warm and focused on the books.

Gain rich insights  
from your  
unstructured data

# Save developers time and effort



# Offers higher accuracy metadata extraction

A blurred background image of a computer screen displaying a large amount of colorful, multi-line code, likely from a web application or framework like React or Angular. The code is written in a programming language like JavaScript and uses various color-coded syntax highlighting for different elements such as keywords, comments, and variable names.

# Scales easily for large solutions



A wide-angle, high-angle photograph of a lecture hall. Numerous students are seated at individual desks, facing forward. The desks are light-colored wood with blue upholstered chairs. Many students are looking down at their work or papers on their desks. Some are using laptops or tablets. The room is large and filled with rows of these desks.

No NLP or machine  
learning expertise  
required

# How does it work?

# How it works

IBM Watson Natural Language Understanding makes value-driven decisions easy by giving you the full story behind all of your data.



# Highlights

**Comprehensive NLP stack:** A rich set of enrichments to extract metadata from unstructured text for deep analysis in various use cases

**Broad Language Coverage:** Depending on the feature, NLU can understand text in thirteen different languages

**Customization:** Industry and domain-specific annotation possible with custom models developed using Watson Knowledge Studio resulting in higher accuracy broader uses

**Improved API:** API Signature is consistent with all Watson APIs enabling quicker development

**Scalability:** Cloud-based service with the infrastructure to support millions of NLU enrichments per month

# What are the main features?

# Features

**Keywords:** Determine the most important keywords in your content.

**Concepts:** Identify general concepts in your content.

**Categories:** Categorize your content into a hierarchical 5-level taxonomy.

**Entities:** Detect important people, places, geopolitical entities and other types of entities.

**Sentiment:** Determine whether your content conveys positive or negative sentiment.

## Features (cont.)

**Emotion:** Detect emotions such as anger, disgust, fear, joy or sadness that are conveyed by your content.

**Relations:** Identify relationships between entities in your content.

**Semantic roles:** Identify the subjects of actions, and the objects that they act upon.

**Metadata:** Get author information, publication date and the title of your text or HTML content.

**Custom models:** Use IBM Watson Knowledge Studio to customize text extraction.

Chrome File Edit View History Bookmarks People Window Help 00:01:23 75% Tue 9:37 AM 00:01:23 Recording...

Natural Language Understanding × IBM Watson Knowledge Studio ×

Secure https://www.ibm.com/us-en/marketplace/supervised-machine-learning

Apps Brain Moriarty Neural Nets Mobile Programming Web Programming NLP General Programming Image Classification C++ AlchemyAPI Cocos2dx Workouts Raspberry Pi AI VirtualBox Marketplace Search IBM Marketplace

IBM

IBM Watson Knowledge Studio

Supervised machine learning

## IBM Watson Knowledge Studio

Teach Watson to discover meaningful insights in unstructured text without writing any code.

Starting at \$150.00 USD per month for one user



Apowersoft Screen Recorder

Overview Details Purchase Resources FAQ

### What it can do for your business

IBM Watson Knowledge Studio is a cloud-based application that enables developers and domain experts to collaborate and create custom annotator components for unique industries. These annotators can identify mentions and relationships in unstructured data and be easily administered throughout their lifecycle using one common tool. Annotator components can be deployed directly to IBM Watson Explorer, AlchemyLanguage and Watson Discovery Services.



# What are the use cases?

# Applications

**Content Recommendation:** How can I recommend content that readers might like?

**Advertising Optimization:** Where and how should I place my ads to the right audience?

**Audience Segmentation:** How can I segment customers to tailor strategies for different audiences?

**Voice of Customer Analysis:** How can I address customer feedback and improve customer experience?

**Data Mining:** How can I search a corpus and discover insights in an efficient way?

# Use Case

## Content Recommendation

Recommend similar content to what a user is interested in viewing or experiencing



# Use Case

## Advertising Optimization

Ensure proper placement of advertisements based on page content and viewer patterns



# Use Case

## Audience Segmentation

Identify key customer groups for market research purposes and to personalize campaigns towards different segments



# Use Case

## Voice-of-Customer Analysis

Spot trends in customer feedback to identify business opportunities, address concerns, reduce churn, and drive revenue



# Use Case

## Data Mining

Search through large content repositories and get answers that are relevant and quick



The IBM Natural Language Understanding Service is available for up to 30,000 units a month at no cost, and allows use of one custom model.

# Thank you