

Leveraging the power of **AI** to
serve the next generation
customer interaction applications



We've all had a job where monotonous tasks got in the way of more enjoyable, meaningful work. Maybe it was updating monthly report data or manually recording inventory. Whatever it was, it was time-consuming, not much fun, and did not drive meaningful business outcomes. And even **customer interaction** gets repetitive, at some point – there are specific procedures and tasks that need to be executed in different cases.

Thankfully, there are technology solutions that can take these tasks off our hands. This is where **artificial intelligence (AI)** comes into play.

AI enables software applications to learn how to read, write, listen, recognize patterns and make complex decisions. AI, together with machine learning (ML) and other advanced technologies, expands automation capabilities and accelerates decision making.

In this **whitepaper**, we'll explore the challenges and benefits of applying AI to applications focused on customer interaction and how it can serve the next generation applications that will boost customer interaction, save costs and eliminate human error.

First, what is AI?

We know AI is a new topic for many people, so let's start off by defining it. **AI refers to decision-making capabilities displayed by computer programs.** This intelligence can take a variety of forms. AI can be as simple as a spam filter for your mailbox or as complex as an algorithm that detects potential health complications in patients.

While we often think of AI as a futuristic technology for revolutionary changes to our personal lives, such as autonomously driving cars or virtual assistants, AI also has many uses in business.

Uber uses AI to determine rideshare fares. Netflix uses AI to decide what movies you see in your recommendation queue. BMW uses AI for quality inspection. According to a 2017 survey by Deloitte, 51% of business executives cited, "Enhancing the features, functions and performance of our products" as a benefit of AI in their business.



How AI and Cognitive Services is changing customer interaction?

Customers today are connected more than ever before and are moving most of their personal and business conversations to messaging apps and social media.

Customers on mobile apps and the web prefer self-service over having to wait to speak with a customer service representative. They want minimal friction, the ability to navigate and interact effortlessly. They want catered experiences that are relevant to them. They expect that apps are intelligent enough to know their intent and desires with less input and fewer taps.

An increasing number of customers are comfortable speaking with an AI-powered bot, given the adoption of services like Siri, Alexa and other friendly assistants. Customers want choices — while at their kid's soccer game, they may prefer to tweet a question about a feature on their smartphone, but when they are at home connecting their new entertainment system to a cable box, they may prefer to speak with a live expert.

Cognitive Services are changing the face of customer service by enabling applications to serve customers better, serving up answers in advance based on “deep listening” to the customers’ voice, level of potential unhappiness or even anger, based on the customers’ perceived tone and connected with the customers’ account and history of previous contacts.

Smart companies see the long-term potential to improve everything they do by harnessing the data that comes out of customer engagement software solutions. This data enables them to build relationships, make recommendations, increase social capital and take advantage of “earned media” through reviews, referrals and more.



adaptive.identity.verification

Customers on mobile apps and the web prefer online registration over having to waste time going to the bank or other institution to do so. They want minimal friction, the ability to navigate and interact effortlessly. They want catered experiences that are relevant to them.

With **adaptive.identity.verification**, we offer a comprehensive suite of tools that redefine the customer onboarding experience.

id.extractor

An intelligent document processing system that extracts relevant information from various identity documents, such as passports, driver's licenses, and ID cards

face.verification

Analyzes facial biometrics and compares them against the provided identification document.

liveness.detection

Determines whether the individual in front of the camera is a live person or a static image.



Data accuracy

Data is automatically extracted with high rate accuracy.



Customer experience

Dramatically reduce customer friction and verification time while increasing conversion rates.



Built-in security

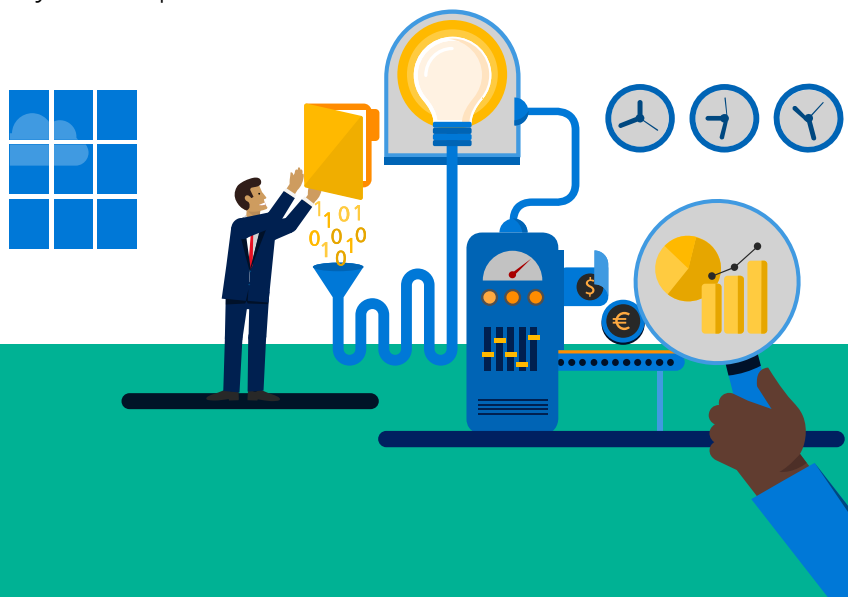
Rely on enterprise-grade security and privacy applied to both your data and any trained models.

adaptive.document.extractor

adaptive.extractor is our AI based solution that helps extract data from real-life images/documents and automatically injects them to any data container. Based on cloud Artificial Intelligence, our solution will help you gain speed and agility in your business processes.

Accelerate your business processes by automating information extraction.

adaptive.document.extractor applies advanced machine learning to accurately extract text, key/value pairs, and tables from documents.



Automate your repetitive processes regarding inputting data from documents

Tired of taking data from physical documents and inputting them in your systems? Are these types of processes causing issues because wrong data is being inputted?

adaptive.document.extractor is the perfect solution for extracting data such as names, personal identification numbers, addresses, invoice numbers, amounts from bills or any other structured or unstructured data that can be identified on almost any document. It is the perfect tool for gathering information about your customers or about your processes in an automated, error free way.

How you manage the data and what you do with it it's completely your choice.



Simple extraction

Easily pull data and organize information with prebuilt and custom features—no manual labeling required.



Customized results

Get output tailored to your layouts with automatic custom extraction, and improve it with human feedback.



Built-in security

Rely on enterprise-grade security and privacy applied to both your data and any trained models.

adaptive.sentiment.analysis

Listening to your customers helps you understand how they perceive your brand and offers insights into market trends and opportunities for improvement.

To keep track of what customers say about your brand, you need **adaptive.sentiment.analysis**, which helps you automatically identify the emotional tone in comments and gain fast, real-time insights from large sets of customer data.

adaptive.sentiment.analysis enables you to:

- Pick up cues that indicate the sentiment attached to a segment of text, showing whether the content is happy or sad;
- Transform an audio file into written text that can be further analyzed;
- Emotion recognition that detects a range of facial expressions like happiness, contempt, neutrality, and fear;
- Monitor metrics such as brand mentions and sentiments associated with each mention;

Marketing insights- Learn what your customers think about your products.



Improve customer service- Ensure employees are following proper customer service etiquette.

Protect brand reputation- Find negative comments and talk to their authors.



Real time detection- Detect in real time human emotions like happiness or sadness.

adaptive.speech

Integrate speech processing into your apps in no-time. Transcribe audible speech into readable, searchable text, convert text to lifelike speech or integrate real-time speech translation.

Use **adaptive.speech** to convert audio into text from a variety of sources or to enhance your bots and give them a human voice.

adaptive.speech enables you to:

- Enable fluid, natural-sounding speech that matches the patterns and intonation of human voices;
- Create a unique voice that reflects your brand's identity;
- Get accurate transcriptions with state-of-the-art speech recognition;
- Translate any conference speech or zoom meeting in real time;
- Add specific words to your base vocabulary or build your own models;

Real time engagement - transformations can be done in real time.



Global audiences – More than 456 voices across 147 languages and variants supported.

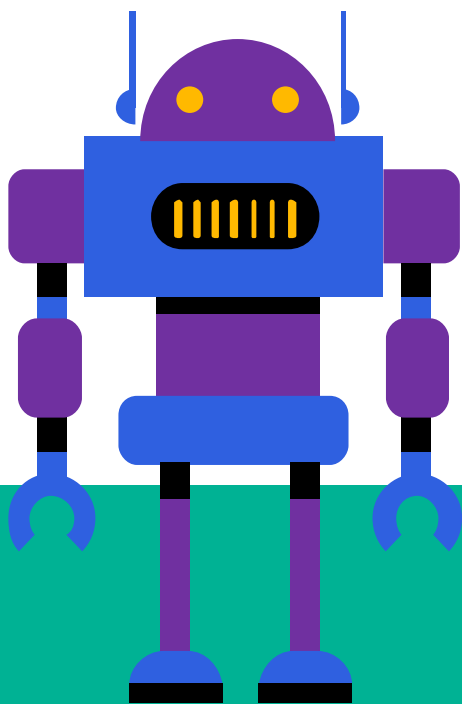
Customized experiences - Build unique experiences tailored for your needs.



Flexible deployment - You can run the AI solutions anywhere you need or like.

adaptive.chatbot

Boost experience for your customers with an AI-driven chatbot that can answer all of their first line of support questions! Extract questions and answers from semi-structured content such as FAQs, manuals or documents and let our **adaptive.chatbot** intelligently respond and manage customers, adapting constantly from user behavior.



Global support

One of the advantages of AI chatbots is that they can provide customers with answers in every time zone and language. Using natural language processing (NLP) our chatbot can determine what language a customer speaks by their input phrases.



Reach your customers, wherever they interact

Integrate Bot Service across multiple communication channels to reach more customers, more often. Apply bots to channels including your website or apps, Microsoft Teams, Skype, Slack, Cortana, and Facebook Messenger.



Extend your bots with skills

Your bot can do much more than talk. Integrate actions and execution flows and transform your bot into a doer!



adaptive.vision

Computer vision is a field of artificial intelligence that trains computers to interpret and understand the visual world. Using digital images from cameras and videos and deep learning models, machines can accurately identify and classify objects — and then react to what they “see.”

adaptive.vision can influence the entire value chain of industrial, manufacturing, retail or many other industries.

image.recognition - Uses computer vision to detect and identify people, items, places, writing or otherwise specific features on an image.

object.detection - Is the task of detecting instances of objects of a certain class within an image.

reports&analytics - Constantly collecting useful data regarding customer behaviour, production line, products movement, equipments and more.



Speed up processes

Perform human tasks with an incredible speed reducing business costs.



Defect detection

Find defects that hasn't seen before and you can train it on images of defect-free objects or materials.



Reduced costs

Reduce operational costs by automatically detect, monitor and track your products or equipments.

Conclusion

Applications that are intended to address customer interaction can provide self-service solutions. Integrating AI in such applications boosts interaction and delivers catered experiences by including cognitive and complex tasks.

Some applications may allow you to have interaction with the end-user, but only in a limited manner. Adding AI and cognitive services takes the experience further, offering in-app live self-service experiences. **adaptive.run solutions** don't just integrate a specific experience in your app, it gives you the ability to draw yourself how the interaction should be.

Supercharge customer interaction applications with **adaptive.run solutions** today by trying out-of-the-box models or let us develop a custom model specifically designed for your business needs.

