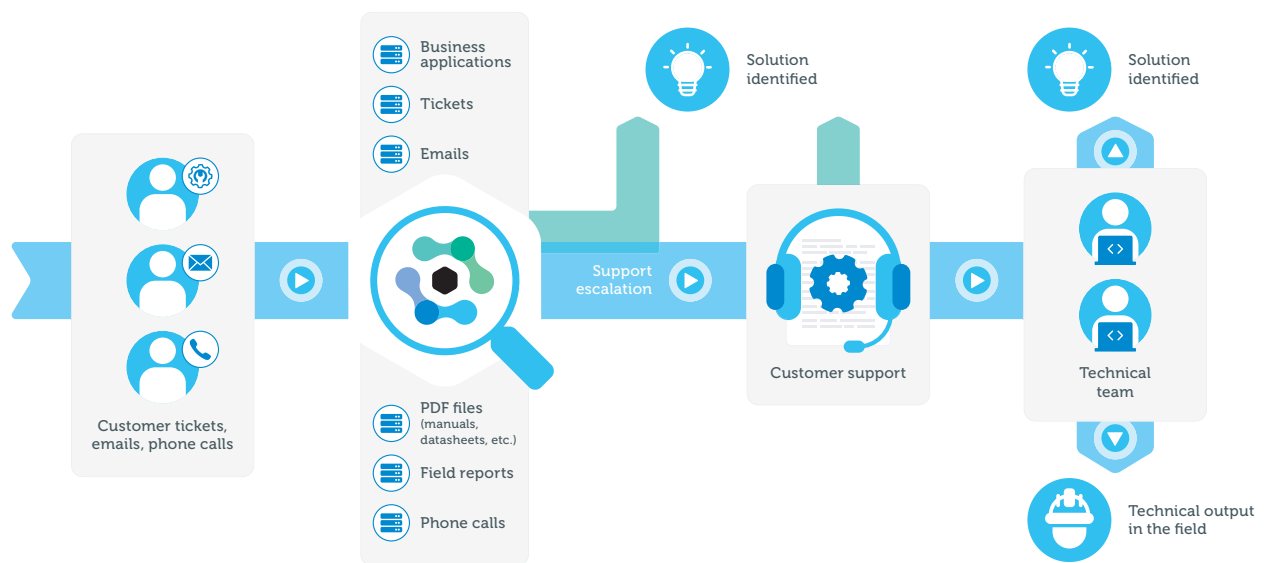# Optimize Technical Support by Applying Artificial Intelligence to Language

Improve data sharing, increase productivity and reduce service costs with expert.ai's advanced solutions for natural language understanding and analysis.

Today companies face a myriad of daily issues as they work to increase efficiency, reduce operating times and costs and improve service activities. These issues include:

- **supply chain and operations disruptions;**
- **the need to constantly monitor system performance; and**
- **urgent service and maintenance requests.**

All of these issues are aggravated by the increasingly high expectations of customers.

This complex and rapidly evolving environment requires companies to develop innovative and high-performance technology solutions that ensure full availability and shareability of data at the highest standards of quality and accuracy.

Most of this data is in unstructured form from documents expressed in natural language (e.g., reports, emails, service requests, technical manuals and internal documentation). A company's ability to process and analyze this data quickly, accurately and on a large scale enables them to extract useful business information and gain a competitive advantage.

Artificial Intelligence for Technical Support

Expert.ai's artificial intelligence solutions for language understanding and analysis enable companies to:

- **improve application and distribution of available knowledge,** making information of interest (e.g., to detect any anomalies and intervene promptly on plants) easily and immediately accessible;
- **increase productivity** of machine operations with better management of service processes; and
- **optimize support for customers, installers and the sales network** with significant savings on on-site service interventions, enabling quick and remote handling of requests which leads to improved customer satisfaction.

Why Choose expert.ai?

Unlike other platforms that analyze unstructured data, expert.ai's artificial intelligence leverages a hybrid approach, based on a unique combination of machine learning and language understanding, to power any process or application that requires the processing of unstructured data.

It replicates human comprehension capabilities on a large scale to analyze any type of text, classify documents, extract useful data and automate processes based on large amounts of information with the accuracy needed to meet any organizational need.

Primary Benefits

With our artificial intelligence solutions, companies realize the following customer service benefits:

Improve Sharing of Business Knowledge

Collect, analyze and structure in a single knowledge base all the feedback collected in the field (e.g., maintenance history, free text reports, etc.) to create in-depth troubleshooting procedures for each type of machine, product or system that are continuously enriched and updated with new cases.

You can also create systems where assistance networks verbally communicate maintenance reports (through a call or WhatsApp) to the system for it to analyze, understand and classify them in the knowledge base.

Efficient Response Times

Intelligent systems (search engines or FAQ management, chatbots) that are available 24/7 allow you to quickly process standard requests or, for more complex issues, guide customers and installers through first-level support. This ensures better service times and problem resolution, and also reduces customer downtime.

By structuring the knowledge, you can significantly increase the number of emails and tickets you manage in the same time interval. As a result, you can satisfy a greater number of requests on items such as failures, spare parts, non-conformities and malfunctioning parts — all with the same resources. It is also possible to reduce the average resolution time by optimizing the entire workflow from taking charge ("picking") to ticket closure.

Increase Efficiency and Cost Containment

The improved management and use of technical information, which is segmented by machine functionalities, components or fault types, facilitates remote assistance. This minimizes the need for operator travel and increases performance in the field.

When a service technician is faced with a problem, instead of calling in to customer service, they can query the knowledge base for best practices on how certain issues have been resolved in the past, reducing the need to escalate the issue to field services technicians engaged in other activities.

Optimize Repair Processes

The information gathered in the knowledge base about the performance level and operation of machines and components can provide insights for design and production departments. In turn, those teams can use that information to improve the design of certain components and keep the fleet under control.

Increase Customer Satisfaction

Leveraging business knowledge assets enables service providers to optimize service delivery and respond quickly to highlighted issues. This leads to greater customer satisfaction and a stronger corporate reputation.