

AI IN BUSINESS: FROM THEORY TO PRACTICE

HOW COMPANIES CAN OVERCOME
AI ADOPTION BARRIERS

FROM THIS EBOOK YOU WILL LEARN:

- ▶ How **Artificial Intelligence** is transforming businesses;
- ▶ What challenges organizations face when **implementing AI** and how to overcome them;
- ▶ **Use Case:** How to configure an AI model in the Creatio system and double the efficiency of one of the target processes.

INTRO

Nowadays, AI technology is everywhere. It's been evolving and shaping our reality. It's being used in mobile apps, software, hardware. The most common AI application includes facial recognition, voice recognition, automatic text generation, and image and data processing. According to Google, 27% of the global online population is using voice search on mobile.

For the most forward-thinking organizations, AI has already become a working tool. Business and IT experts are actively implementing AI and working on its development. Although for some organizations "smart" technology may still seem like rocket science.

The number of enterprises using AI in business grew by **270%** between 2015 and 2019. **(Gartner)**

83% of businesses say AI is a strategic priority for their businesses today **(Forbes)**

44% of executives believe artificial intelligence's most important benefit is providing data that can be used to make data-driven decisions. **(Chatbots Magazine)**

54% of executives say AI solutions implemented in their businesses have already increased productivity. **(PwC)**

In this eBook, we'll debunk a myth that AI is a complex technology that cannot be mastered by business users. We'll explain what tools an AI-powered low-code platform for process management and CRM provides so any company could beneficially exploit AI. Let's delve deeper into AI technology and understand how it works.

#1

ADVANTAGES OF ARTIFICIAL INTELLIGENCE

AI technologies ensure the quality of decision-making, improve the efficiency of internal and external organization processes, as well as enhance the customer experience. AI allows users to significantly accelerate business processes, which is especially important as speed today is being considered the main competitive advantage. Artificial intelligence is rapidly developing in different directions. Predictive analytics and natural language processing have already shown their effectiveness. For example, using machine learning models **Creatio** system can predict the values of various fields, perform categorization, calculate the probability of the events, rank data, and much more.



The AI market will grow to a \$190 billion industry by 2025.

(Markets and Markets)



At least one type of AI technology is set to be utilized by 70% of businesses by 2030 according to McKinsey.

(McKinsey)

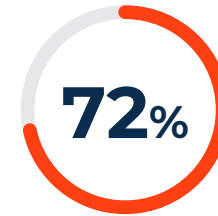
With the help of AI, machines can learn from experience and perform human-like tasks. Using these technologies, computers can be trained to accomplish specific tasks by processing large amounts of data and recognizing patterns in the data. Learning from experience is the main driver for the development of data-driven technologies.

You can train systems to make decisions the way a person would, and sometimes even find patterns that are difficult for a person to find, thus increase the efficiency of decision-making.

#2

THE CHALLENGES OF AI IMPLEMENTATION

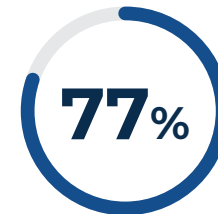
In addition to the advantages that AI technologies provide, there are a number of difficulties that companies face while integrating artificial technology into their businesses.



72% of companies using AI believe it will make their jobs easier. **(PwC)**

On the one hand, the development of most business software is quite simple. There are many ready-made tools as well as best practices that one can follow and easily apply to application development. Nowadays, it's not difficult to find a specialist who can design a system as well as develop or adapt it to specific business needs.

Moreover, in recent years, leading software vendors, including Creatio, have been offering customers low-code and no-code tools that allow for creating and adapting software products with little to no coding skills, by means of business analysts.



Already 77% of the devices we use feature one form of AI or another.

(Agility PR Solutions)

#2

THE CHALLENGES OF AI IMPLEMENTATION

ON THE OTHER HAND, THE IMPLEMENTATION OF AI TECHNOLOGY IS ACCOMPANIED BY A NUMBER OF DIFFICULTIES:

▶ DATA QUALITY AND QUANTITY

The system you build is only as good as the data that it's given. Since data is the basic element of AI solutions, the quality of the system relies heavily on the data that it's fed. AI systems require massive training datasets. Artificial intelligence learns from available information in a way similar to humans. However, in order to identify patterns, it needs much more data than we do. Think about it this way: people become better at something if they do it on a regular basis. The difference is that AI can analyze data with a speed humans can't fathom; it learns fast. The better data you give it, the better outcomes it will provide.

▶ LACK OF KNOWLEDGE

There is a large number of AI algorithms that are quite complex, both mathematically and technically, and require specific skills and knowledge.

▶ DESIGN COMPLEXITY

The model design stage is quite difficult. You need to choose the right data to train the model; determine the parameters based on which the system will operate; choose the right ML algorithms. Even a minor error or inaccuracy at this stage will impact the results.

▶ LABOR-INTENSIVE IMPLEMENTATION

Integrating AI into the existing system is a complicated process. The interface and elements to address the specific business needs have to be set up. Some rules are hard-coded. It's essential to consider data infrastructure needs, data storage, feeding the data into the system, which makes the whole implementation process time-consuming and resource-intensive.

#3

ARTIFICIAL INTELLIGENCE TRENDS TO LOOK FOR IN 2021

AI IS GRADUALLY EVOLVING AND DEVELOPING:

- Vendors began to offer clients ready-made or almost ready-made AI models that require minimum of steps to launch them.
- Custom tools that allow to simplify the configuration of AI system components and perform some of the actions without involving developers are being designed.
- A large number of libraries with the most popular learning algorithms for AI systems are being created.

Below we have listed three major trends that were developing in 2020 and are expected to be more dominant in 2021.

1. LOW-CODE/NO-CODE

Low-code/no-code movement is gaining momentum every year. The pandemic has accelerated the use of apps and vertical AI solutions for businesses. While automated machine learning enabled building high-quality AI models without in-depth data science knowledge, modern low-code/no-code platforms allow users to build AI-powered applications with little to no programming skills.

2. ADVANCED PRE-TRAINED LANGUAGE MODELS

The last few years have brought tangible advances to the natural language processing (NLP) space. These models are very powerful and have revolutionized language translation, comprehension, summarization, etc. However, these models are quite expensive and time-consuming to train. The good news is that pre-trained models can boost a new generation of effective and easy-to-build AI services. For instance, GPT-3 (Generative Pre-trained Transformer 3) is being considered as one of the examples of an advanced model accessible via API. It has been widely demonstrated for use cases ranging from writing code to writing poetry.

#3

ARTIFICIAL INTELLIGENCE TRENDS TO LOOK FOR IN 2021

3. SYNTHETIC CONTENT GENERATION

Natural language processing is not the only AI area to see significant algorithmic innovation. Generative adversarial networks (GANs) have also demonstrated outstanding feats in creating art and fake images. Initially, GANs have been complex to train and tune as they require large training sets. However, innovations have dramatically reduced the data sizes of creating a GAN. For instance, Nvidia has demonstrated a new augmented method for GAN training that requires much less data than its predecessors. This innovation can boost the use of GANs in everything from medical apps to even more deep fakes.



AI will power 95% of all customer interactions by 2025, including live telephone and online conversations.

[\(Servion Global Solutions\)](#)



The success rate of bot interactions to reach over 90% in 2022.

[\(Juniper Research\)](#)

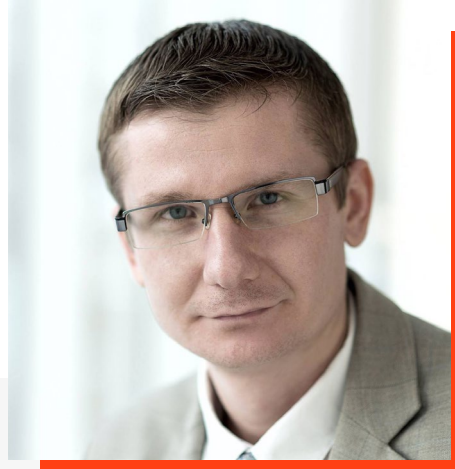


There will be 8 billion voice assistants by 2023.

[\(Statista\)](#)

#4

AI: INTELLIGENT APPROACH TO DECISION MAKING. CREATIO'S EXPERT OPINION



VIKTOR ALEKSIEIEV

Product Owner at Creatio



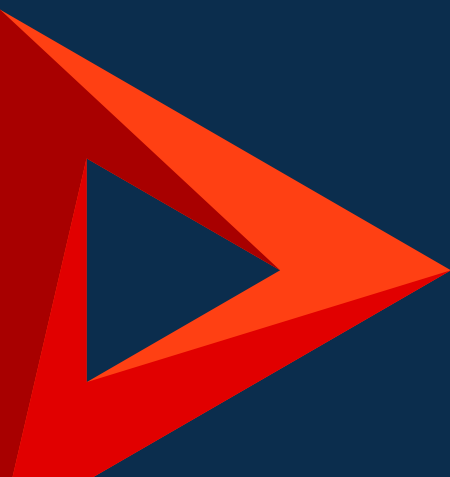
The use of AI technology allows companies to focus on results. The main goal of AI development teams at Creatio is to design tools that will improve the quality of decision making and optimize business processes.

We strive to make the adoption of AI tools as easy as possible, as well as reduce the need for expensive specialists who design models and explain the factors affecting a particular forecast accuracy. This helps to build trust and confidence in AI, and helps Creatio users and system analysts quickly understand the logic of the AI model and its configuration.

Creatio AI tools are suitable for solving business problems of different levels of complexity. The use of AI has shown that a solution does not have to be complex in order to be effective.”

#5

AI IMPLEMENTATION. STEP-BY-STEP ALGORITHM TO BUILD AN AI MODEL



USE CASE

How to configure an AI model with Creatio's low-code platform for process management and CRM and double your lead conversion rate.

Below you can find a practical guide on implementing a simple but effective solution using Creatio's AI tools. There's no need to involve developers and data scientists to launch a pilot project. The following step-by-step algorithm is also being used by Creatio experts and users to configure AI models for varying use cases.

1. BUILDING AN EFFECTIVE TEAM

First and foremost, find business users with deep understanding of how the unit works and who are experienced in process and/or workflow development. Working with such experts will save time and reduce costs on expensive specialists.

2. SETTING GOALS

Secondly, define what should be optimized in the process. Together with your team, review the business unit's goals and KPIs. For example, you attract specialists who are engaged in communication with potential clients (leads) and their task is to engage a company and arrange a meeting. The greater number of successful meetings scheduled, the more efficient the work of the unit

#5

AI IMPLEMENTATION. STEP-BY-STEP ALGORITHM TO BUILD AN AI MODEL

3. SELECTING THE RIGHT TOOL

What AI tools can make the process more effective? To address this question, you will need a basic understanding of how AI systems work., specifically machine learning technologies.

Creatio has a platform for training models and solving problems of classification, regression and scoring. With its help, one can calculate sales volume, prioritize customer requests, forecast the optimal order quantity and request processing time, calculate the probability of closing a deal, etc. We also provide **Recommendation ML** models that create lists of objects (recommendations) that are likely to be linked to the “subject” records (the recipients of recommendation). For example, the system can recommend products to your customers based on known purchases of other similar clients or purchases of similar products.

The most suitable solution for our task is to use a scoring mechanism in order to predict the likelihood of a given event occurrence. In our case, the given event is a successful communication with a client and an appointment.

The screenshot displays the Creatio CRM interface for a lead record titled "Need for our products / Ray Crowden". The interface includes a sidebar with navigation icons, a top header with the Creatio logo and user profile, and a main content area with various tabs and sections.

Lead Information:

- Customer need: Need for our products
- Registration method: Landing page
- Budget: 0.00
- Created on: 2/16/2021 12:57 PM
- Owner: Megan Lewis
- Sales channel: Direct sale
- Predictive score: 86 (indicated by three stars)

Lead Engagement Timeline:

- Qualification
- Nurturing
- Handoff to sales
- Awaiting sale
- Satisfied

Registration info:

Field	Value
Contact name	Ray Crowden
Job title	CEO
Mobile phone	+1 617 765 7997
Email	Ray.Crowden@AlphaBusiness.com
Account name	Alpha Business
No. of employees	201-500
Country	United States
Web	AlphaBusiness.com

Similar leads:

Customer need	Lead stage	Created on	Account	Contact
Need for our products	Satisfied	3/2/2021 8:15 AM	Alpha Business	Alexander Wilson

AI IMPLEMENTATION. STEP-BY-STEP ALGORITHM TO BUILD AN AI MODEL

4. DEFINING AI MODEL PARAMETERS

Once we are done with selecting the right tool, it's high time to define what the expected result depends on. For example, what factors might affect the appointment? There is no need to involve data scientists to analyze large amounts of historical data and find patterns and correlations between multiple sets of data. Internal business experts can do that on their own.

Thanks to internal experts' experience, you can tell what factors will affect the result. Based on their advice you can choose the suitable models. For example, the success of scheduling a meeting can potentially be influenced by the following factors: whether a contact provided a corporate email address; the number of other leads generated for the same customer; the number of emails read; lead source, etc. There are about 10 parameters in total. When set, our hypothetical model is ready.

The screenshot displays the 'Lead scoring (Sales) (7.14.0)' configuration page in the Creatio system. The interface includes a top navigation bar with 'CLOSE', 'ACTIONS', and 'RETRAIN MODEL' buttons. The main content area is divided into two panels. The left panel shows the model's name, type ('Predictive scoring'), and object ('Lead'). It also features a 'Done' section with a 'Prediction enabled' checkbox and a progress bar. The 'Expected Accuracy' is displayed as 0.91. The right panel is titled 'PARAMETERS' and contains two sections: 'What records to be considered as successful?' and 'Which columns does the predicted value depend on?'. The first section has a dropdown menu set to 'Lead stage' and a condition 'Satisfied; Handoff to sales'. The second section lists various columns for selection, including 'Department', 'Account.Industry', 'Account.Type', 'Registration method', 'Customer need', 'Source', 'Contact.Role', 'TotalContactLeads', 'Channel', 'Account.Category', and 'Contact.Type'. A sidebar on the left contains navigation icons, and a top right corner shows the user profile and system version (7.17.3.1377).

#5

AI IMPLEMENTATION. STEP-BY-STEP ALGORITHM TO BUILD AN AI MODEL

5. CONFIGURING AI MODEL IN CREATIO

It's time to move from theory to practice and start configuring the model. The Machine Learning Models section in Creatio allows users to make most of the customizations using the basic system capabilities. It usually takes between 2-3 hours to set up all the essential model parameters.

After the model is configured, we launch the training process by processing a small amount of data. As a result, we get information about the forecasting accuracy and the degree to which each of the parameters influences the final result.

After several iterations, we get a predictive model and can launch a pilot project to evaluate our model performance.

The screenshot shows the 'Lead scoring (Sales) (7.14.0)' configuration page in Creatio. The interface includes a sidebar with navigation icons, a top header with a search bar and user profile, and a main content area with tabs for PARAMETERS, ADVANCED SETTINGS, TRAINING, ATTACHMENTS AND NOTES, and FEED. The TRAINING tab is active, displaying 'Top model parameters trained on 11/18/2020 12:00 AM'.

Model Parameters:

Predictor	Weight
LeadAgeDays	+0.24
Customer need	+0.23
TotalContactLeadsLastTwoWeeks	+0.19
Text	+0.09
Channel	+0.09
Registration method	+0.05
Department	+0.03
...	+0.03

History of model training:

Modified on	Status	Model in use	Trained on	Evaluation metric	Train set size	Training time (min.)
3/2/2021 9:00 AM	Done	Yes	11/16/2020 12:00 AM	0.91	75,000	1

Left Panel Details:

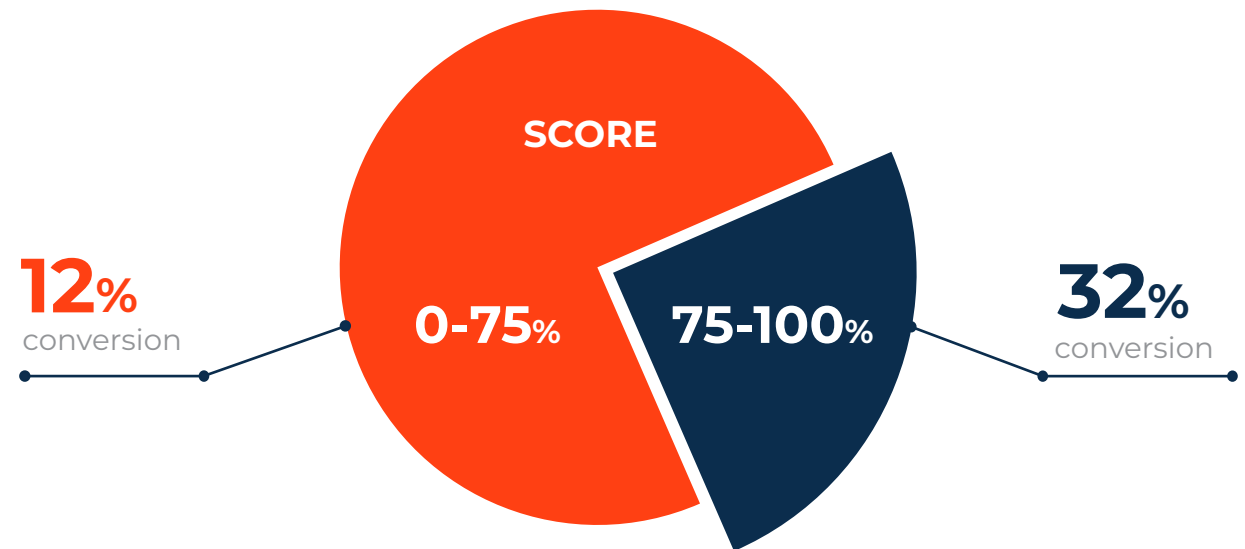
- Name: Lead scoring (Sales) (7.14.0)
- Type: Predictive scoring
- Object: Lead
- Done:
- Prediction enabled: ☒
- Expected Accuracy: 0.91
- FREQUENTLY ASKED QUESTIONS:
 - Predictive analysis: How to use machine learning models
 - Machine learning service: How to add predictive score to records

#5

AI IMPLEMENTATION. STEP-BY-STEP ALGORITHM TO BUILD AN AI MODEL

6. HYPOTHESIS TESTING AND MODEL OPTIMIZATION

We implemented the model into the company's business process. We started with setting up several lead queues, which were to be processed by employees. We configured them so that the leads with high probability of appointment (score 75% to 100%) would go to list #1, and those with probability from 0% to 75%—to list #2. Within several weeks the conversion rate for the first lead queue was 32%, and for the second—12%. This proved the effectiveness of the configured model.



7. ANALYSIS OF RESULTS

Employees have changed the process flow and now, when choosing leads, they are guided by higher score values. Thus, in a short period of time and with minimal costs, we were able to increase the efficiency of the entire business division. Three components ensured success of this project: quality historical data, "smart" self-learning algorithms and employee expertise. The work on process optimization does not end there. You can continue to iteratively experiment with parameters to improve the quality of the model, and add AI technology to further improve operations.

CONCLUSION

Today, it is all about the amount and quality of data collected, processed, structured and used. Transforming raw data into actionable insights is a complex and time-consuming task that humans face on a daily basis and with which machine intelligence technologies are very successful in coping. AI technologies are becoming more and more popular, and now it's especially vital not to miss an opportunity and start utilizing AI in your businesses.

From the experience of using Creatio AI technologies and major trends in the development of AI systems, two key conclusions can be drawn:

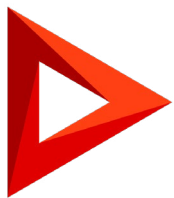
1. Building intelligent solutions does not always require the involvement of costly specialists and large investments. Instead, you can use the knowledge of internal experts and low-code tools that allow users to perform customization in a user-friendly interface.
2. AI implementation can improve the effectiveness of both internal and external processes and help your business become more efficient.



ABOUT CREATIO

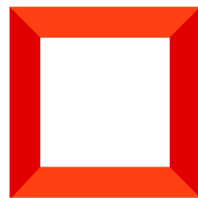
Creatio is a global software company providing a leading low-code platform for process management and CRM. The company offers three products on one platform to connect the dots between marketing, sales, service and operations. The system delivers end-to-end processes to manage the complete customer journey—from lead to order to continued customer service excellence. Creatio products are backed by a robust low-code platform. Building apps and changing processes in Creatio is easy – you don't need to be an IT specialist and there is few to no coding. Creatio offers the agility to continually test, modify, and improve processes to keep up with the new business environment.

CREATIO **SUPER** POWERS



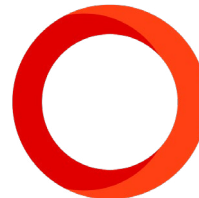
BPM ENGINE

to change processes
faster



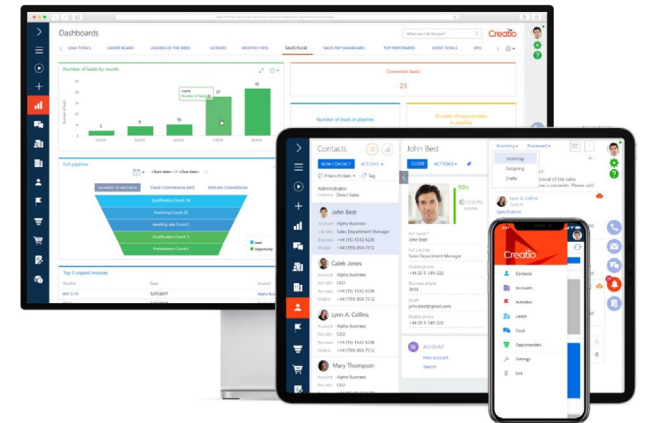
LOW-CODE PLATFORM

to make everyone
a developer



UNIFIED CRM

to align sales, marketing
and service



Empowering mid-size and large enterprises
to accelerate operational & customer facing processes

TRY IT FREE