

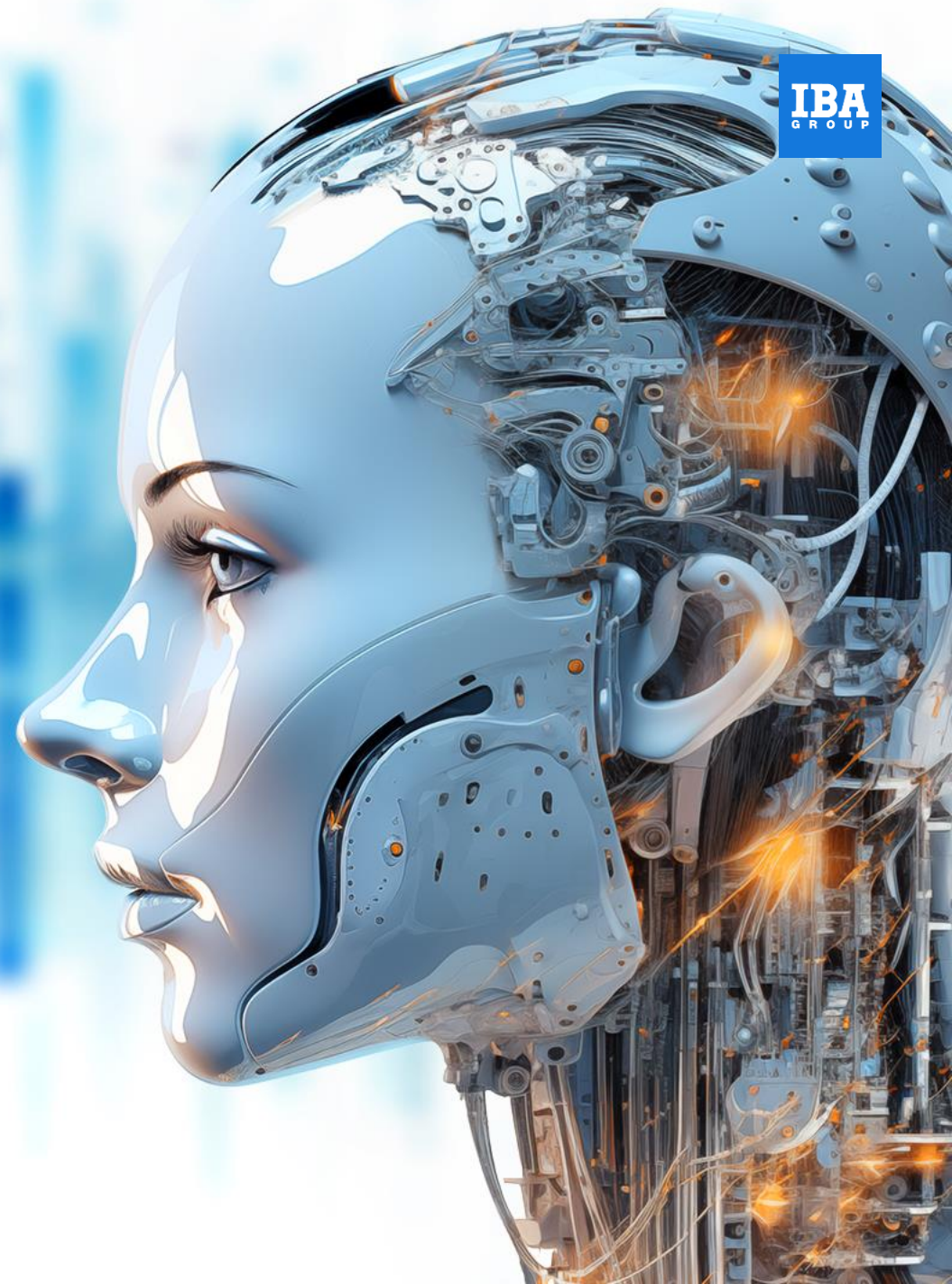
5 | 12 | 2023

IBA
GROUP

Using AI techniques to build
intelligent software robots.

Can such work be assigned to
responsible tasks?

Sergii Baibara



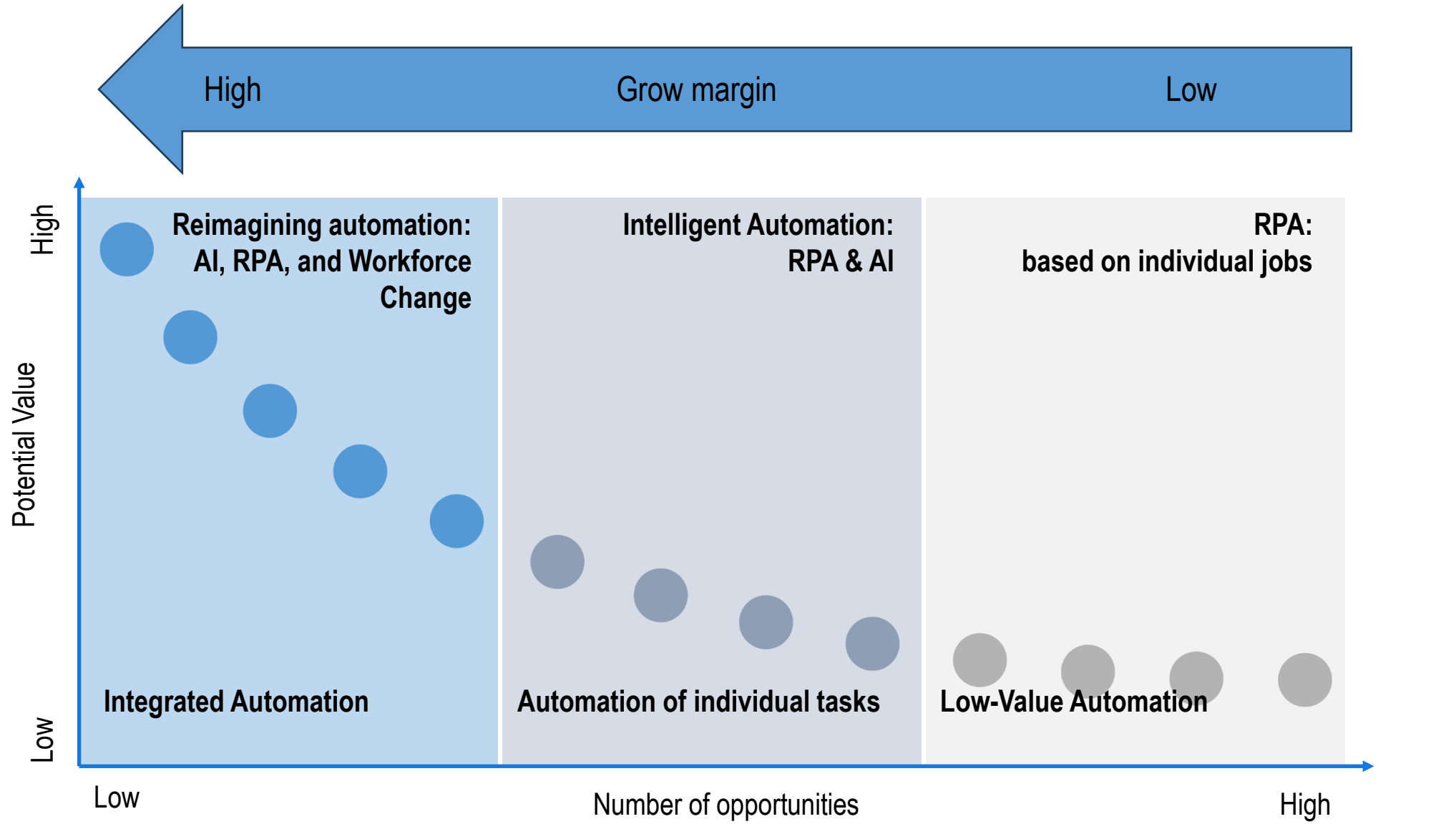
Intelligent automation - IPA - expands the number of tasks for robots

Robots have done it before:

- Logged into applications
- Move files and folders
- Scrape data
- Monitor
- Go through emails
- Fill out forms
- Read and enter information into databases
- Copy and paste data



From Simple Robotization to Intelligent Automation



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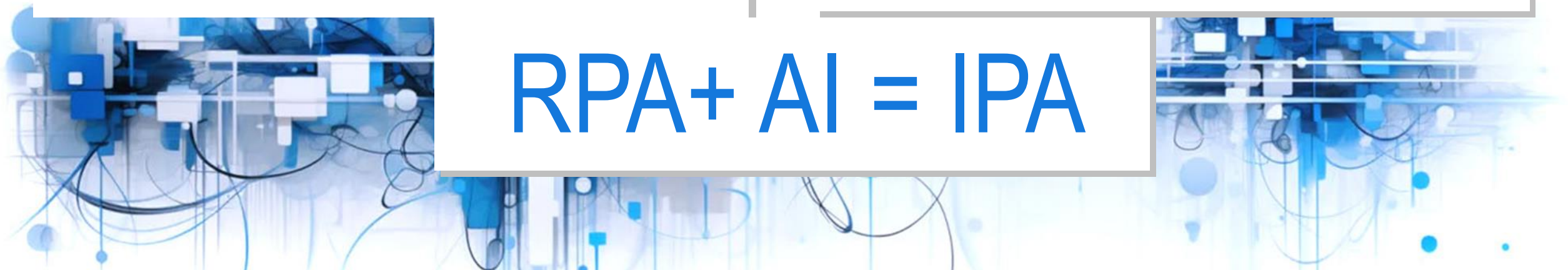
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Robots are doing now:

- Extract data from documents
- Categorize e-mail
- Work in a virtual workplace (VDI)
- Understand semi-structured and unstructured data
- Perform analysis of business processes and individual tasks
- Convert speech to text
- Communicate with customers (chatbots)

RPA + AI = IPA



The Task of Classification

Human Tasks / Incoming Request

Human Task ← Back to list

Status: ● In Progress SKIP TASK

Categories More

- SUPPLIER NOTICES
- COUNTERPARTY DATA RECONCILIATION
- EMIR QUERIES
- IL ANALYSIS

Remaining time: 0:21:37

Auto accept next SAVE SEND

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Note	2021	2020
Cash flows from operating activities		
Income for the year	43,897	14,215
Adjustment for items in income statement:		
Depreciation and amortization	478	525
Impairment losses on loans	(11,882)	12,623
Impairment losses on investment securities	(2,415)	2,278
Fair value losses on loans at FVTPL	(683)	229
Fair value (gains) losses on equity investments at FVTPL	-	7
Net interest income	(46,679)	(36,808)
Realized gains on disposal investment securities at FVTOCI	(4,855)	1,752
Realized losses from debt issued	-	2,049
Cash generated from (used for) operations:		
Proceeds from repayment of loans	903,419	561,715
Proceeds from repayment of equity investments	7,169	1,231
Funds advanced for loans	(1,072,130)	(783,932)
Funds advanced for equity investments	(460)	(732)
Net movement in derivative financial instruments	35,958	(1,190)
Working capital adjustments:		
Interest income received	101,502	98,678

Classification result:
Reconciliation of
counterparty bank
data

Examples of the Classification task

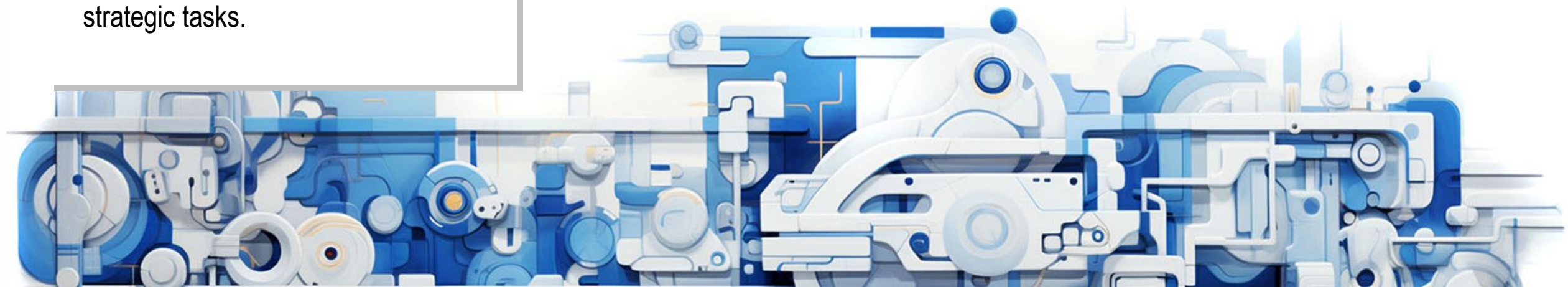
Classification of topics

ML algorithms determine the subject of an email, such as "loan request", "invoice question" or "complaint"

Result

Save time

Machine learning processes incoming mail faster and more efficiently, freeing up employees' time for more strategic tasks.



Examples of the Classification task

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Message Prioritization

The system automatically prioritizes each email, helping the bank respond faster to urgent requests.

Result

Risk mitigation

Automated classification helps not to miss important requests or complaints, reducing risks for the bank.



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Request Routing

ML determines which department or employee should be contacted to resolve the issue more effectively.

Result

Improve customer service

The bank can respond more quickly to customer requests, ensuring a high level of service.



The task is to extract information



Human Tasks / Document b928ffb9-1129-49df-a8b2-dfc7a251e61d

Human Task ← Back to list

Status: ● Available **ACCEPT TASK**

Message 1 of 3 [Show more](#)

IDP Sample Invoice Document Information Extraction

Invoice

Invoice Number: 8227250672
Invoice Date: 05/03/2020
Payment Due: 05/05/2020

Amount Due: \$5262.26

BILL TO:
Rennova Health, Inc.
5 Carpenter Avenue
Lackland AFB, MGR
+356 (210) 766-7668
ebeswick7@java.com

Item	Description	Quantity	Price	Total
Longos 1	Edulis tasty body healthy body fresh 1	18.00 1	\$79.00 1	\$1422.00
Cleaner 2	Divine red easy tasty accent organic trim food 2	8.00 2	\$136.00 2	\$1088.00
Tabasco sauce, 2 oz 4	Stream food living healthy cheer fresh 3	14.00 3	\$131.00 4	\$1834.00

Extracted Data

Invoice Number * n
Tr 8227250672

Invoice Date *
Tr 05/03/2020

Due Date *
Tr 05/05/2020

Company Name *
Tr Rennova Health, Inc.

The robot retrieved:
invoice number,
invoice date,
payment term,
Company Name.

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Examples of the Information Extraction task

KYC procedure

Algorithms automatically extract the customer's data from uploaded documents, such as a passport or driver's license, to verify the authenticity of the information.

Result

Compliance Automated

KYC helps the bank comply with regulations and security standards, reducing the risk of misidentification of customers.



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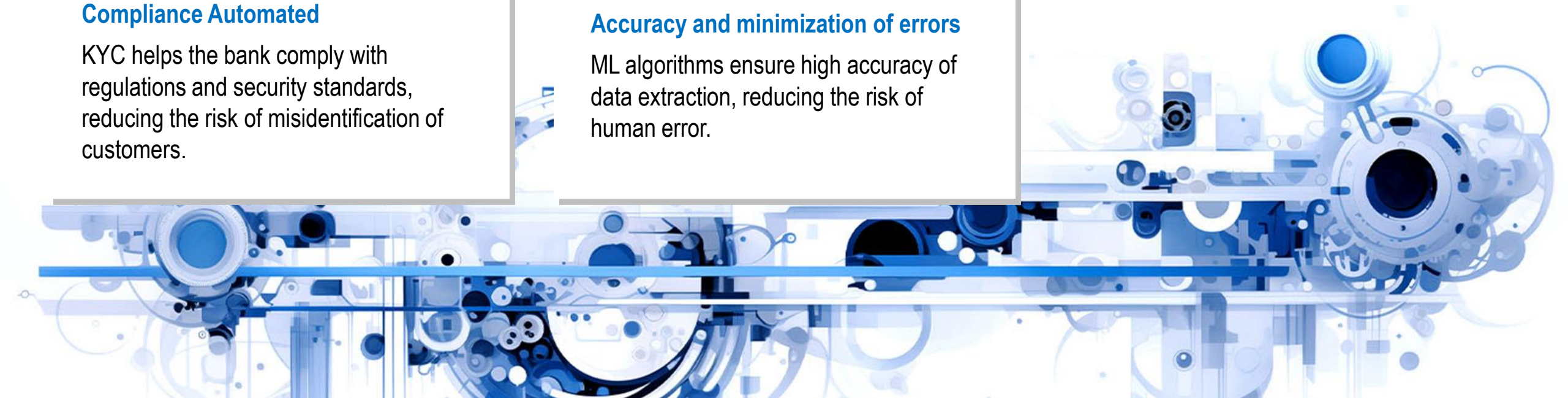
Extracting data from fin Report

ML algorithms can automatically extract data on financial metrics such as income, expenses, and profit and loss from financial statements in PDF format.

Result

Accuracy and minimization of errors

ML algorithms ensure high accuracy of data extraction, reducing the risk of human error.



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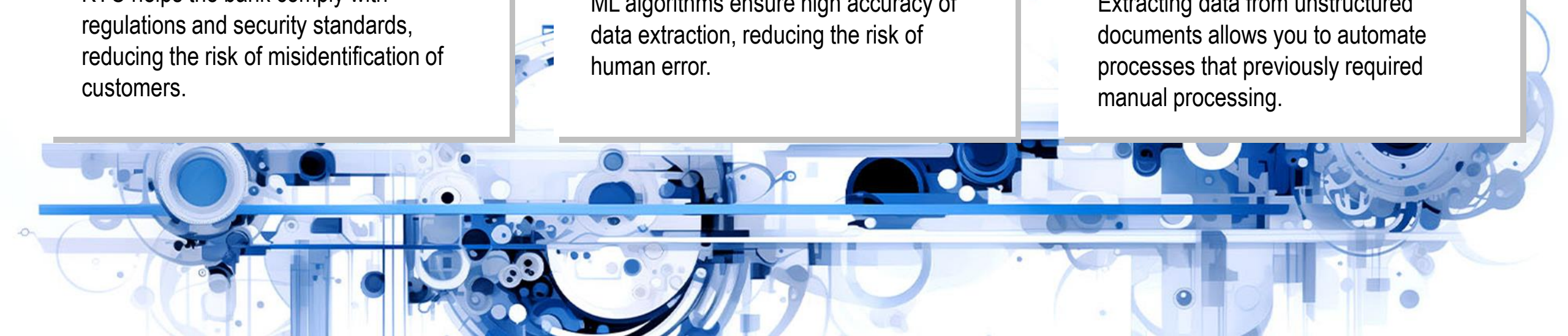
Transaction Monitoring

Algorithms analyze textual descriptions of transactions in statements and extract key data, such as the amount, date, and description of the transaction.

Result

Automation of routine tasks

Extracting data from unstructured documents allows you to automate processes that previously required manual processing.



Examples of the Recognize Signatures task

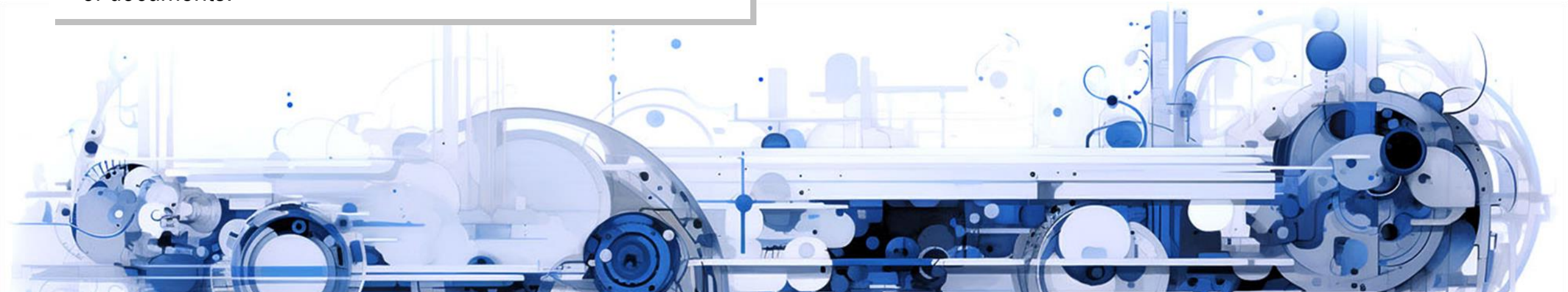
Extracting Signatures from Documents

Machine learning algorithms extract signatures from documents of various formats, such as bank agreements, statements, or contracts.

Result

Efficiency & Automation

The bank automates the verification of signatures, speeding up the process compared to manual verification of documents.



Examples of the Recognize Signatures task

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Detecting the Authenticity of a Signature

ML algorithms help determine whether a signature is authentic by comparing it to previously stored samples.

Result

Security & Fraud Prevention

The use of Signature Recognition ML helps the bank prevent signature forgery and reduce the risk of fraud.



GPT Models in Banking: A Revolution in Artificial Intelligence



ChatGPT 3.5

was quiet for a moment and then he started again.

Can you give me feedback on my short story?

ChatGPT

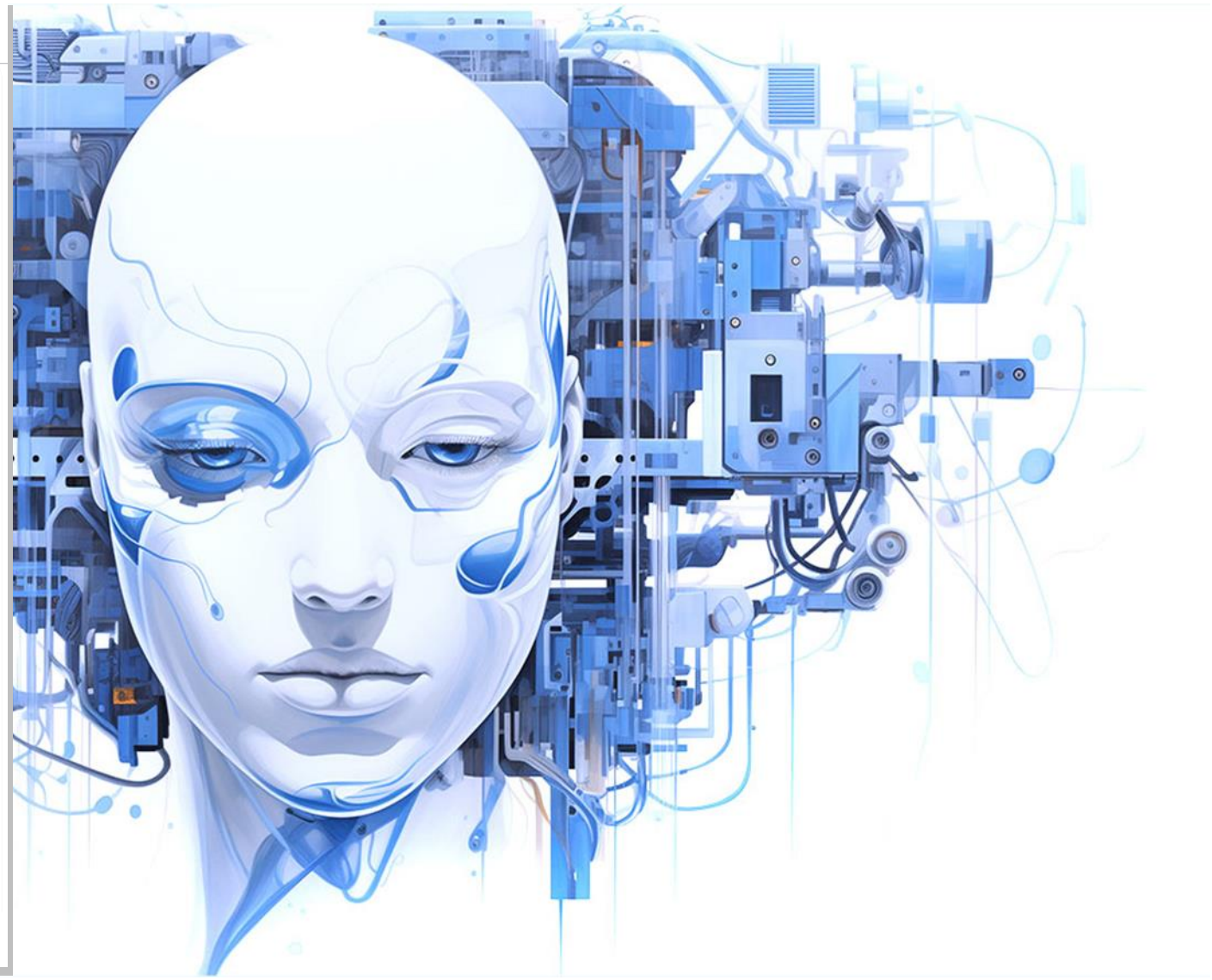
Your writing is engaging and provides insight into the protagonist's feelings and past experiences. You effectively use descriptive language to paint a picture of the setting and the characters. The dialogue between the protagonist and their father feels natural and adds depth to the story. Additionally, your writing style is clear and easy to follow. However, there are a few areas where you could improve:

1. Punctuation and grammar: There are some minor punctuation and grammar issues throughout the text that could be polished for a smoother reading experience.
2. Clarity: Some parts of the story could benefit from a bit more clarity or elaboration, especially in the transition between scenes and the protagonist's internal thoughts.
3. Show, don't tell: While you do a good job of describing the physical setting, there are moments where you tell the reader about the character's feelings and past experiences. Consider showing these emotions through actions, dialogue, or internal monologue to make the narrative more immersive.

Overall, your writing is well-crafted and engaging, with room for minor improvements in mechanics and clarity. Keep up the good work!👏

Message ChatGPT...

ChatGPT can make mistakes. Consider checking important information.



The main tasks solved by generative AI today

Generation with search add-on

A chatbot synchronized with marketing materials helps customers quickly get information on the services they are interested in.

A chatbot helps a bank employee to quickly receive answers on internal regulatory rules

Content Creation

Generating the text of sending offers to customers

Generate scenarios that represent possible fraud scenarios for which you have a limited amount of data. Using such data to train another AI model expands the range of cases that the model can recognize.

Summarizing information

Summing up the terms of insurance, loan agreements, contracts for the client.

Data Extraction

Processing of financial reports, acceleration of audits.

Generating Pins

Analysis of texts and prediction of possible risks.

Classification

Determining the sentiment of comments in social media. networks in response to marketing campaigns

Generation with search add-on

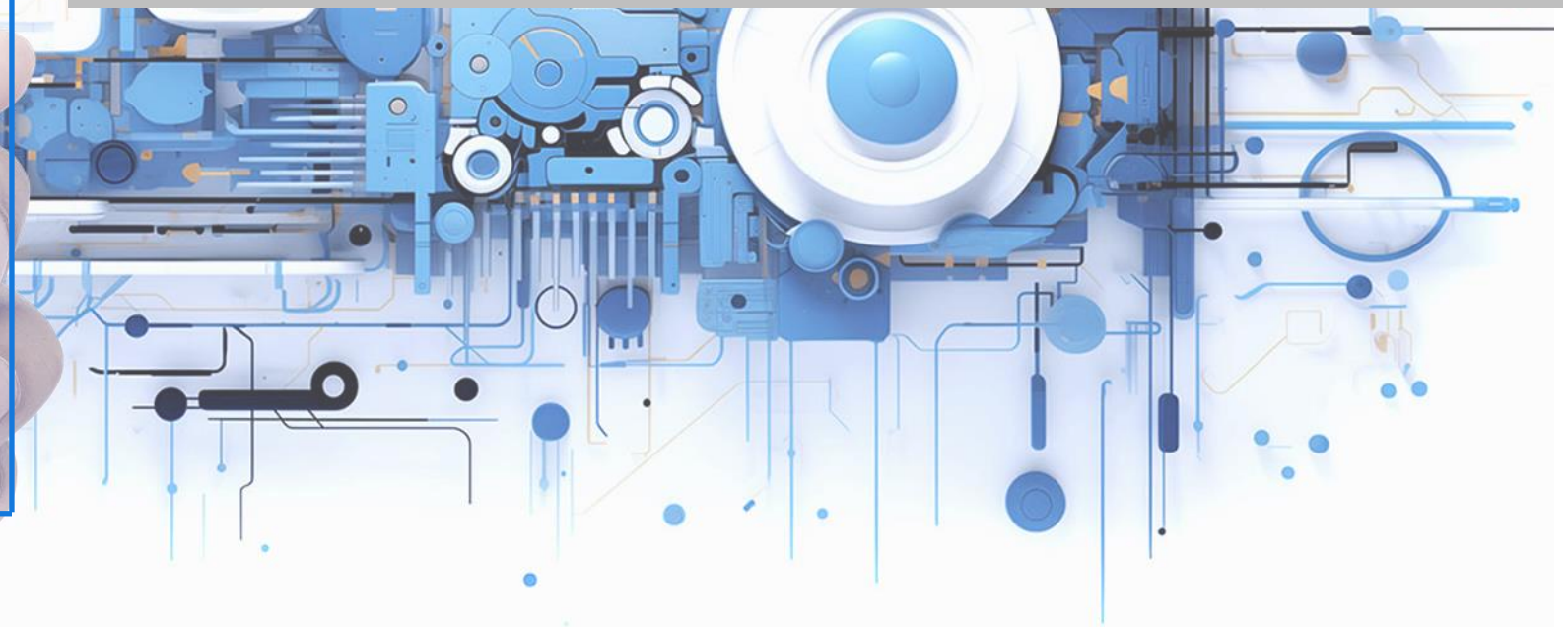
Can I use my bank card abroad?

Yes! Your ABS card is for international use. Please make sure your card supports international transactions.

Can I use my ABC Bank VISA? A debit card at a foreign bank to receive local currency?

When traveling abroad, you can use your credit card to make purchases and...
[Read more](#)

Artificial intelligence generated a response by analyzing information from documents that it also attached to the response

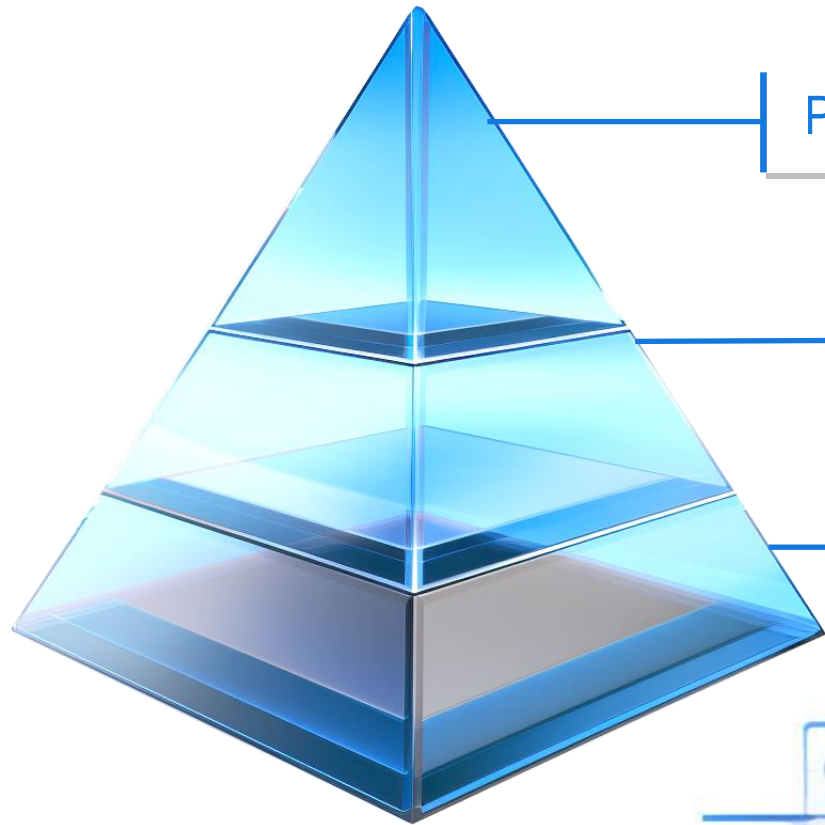




What are the tasks
Can Artificial
Intelligence Be
Trusted?



Entrust any task, but control!



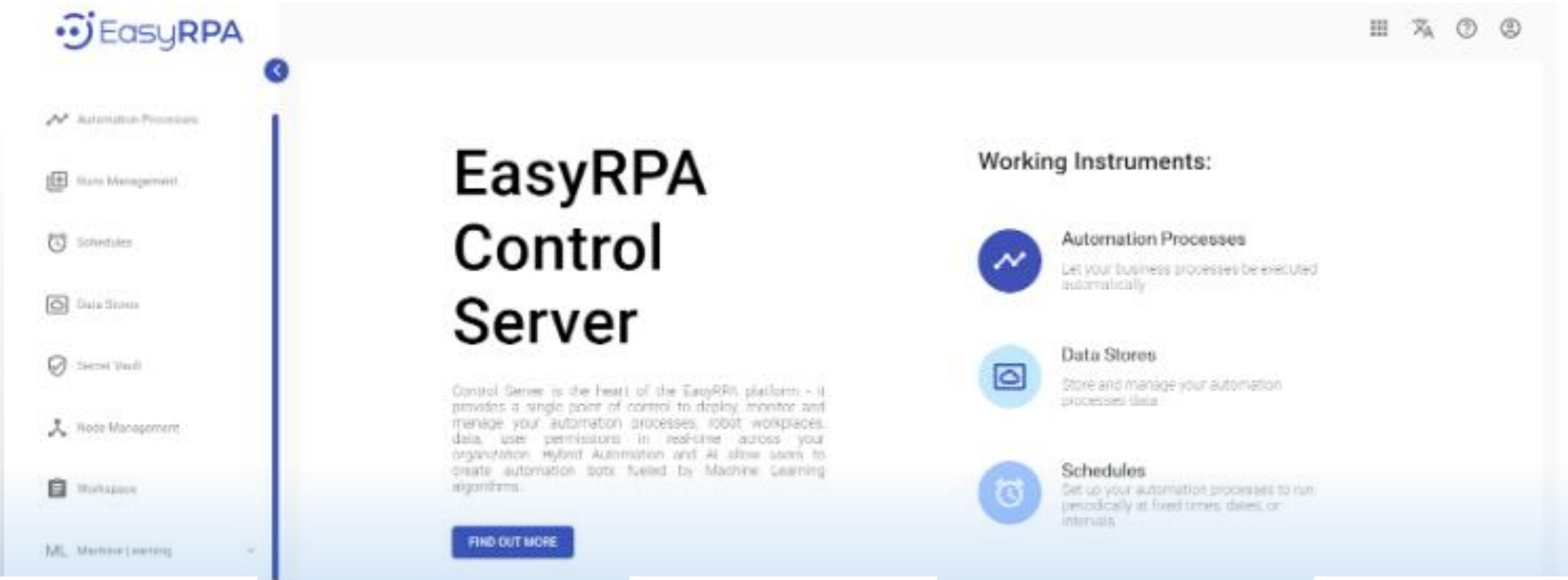
Post-processing of ML results

Validation of results

Manual Verification



The solution is the use of AI-oriented RPA platforms



Integrated ML Models

OCR: Text Recognition

Post-Processing Rules and AI Validation

Human-in-the-Loop: Workspace for Manual tasks

Auto Retrain

Questions?



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