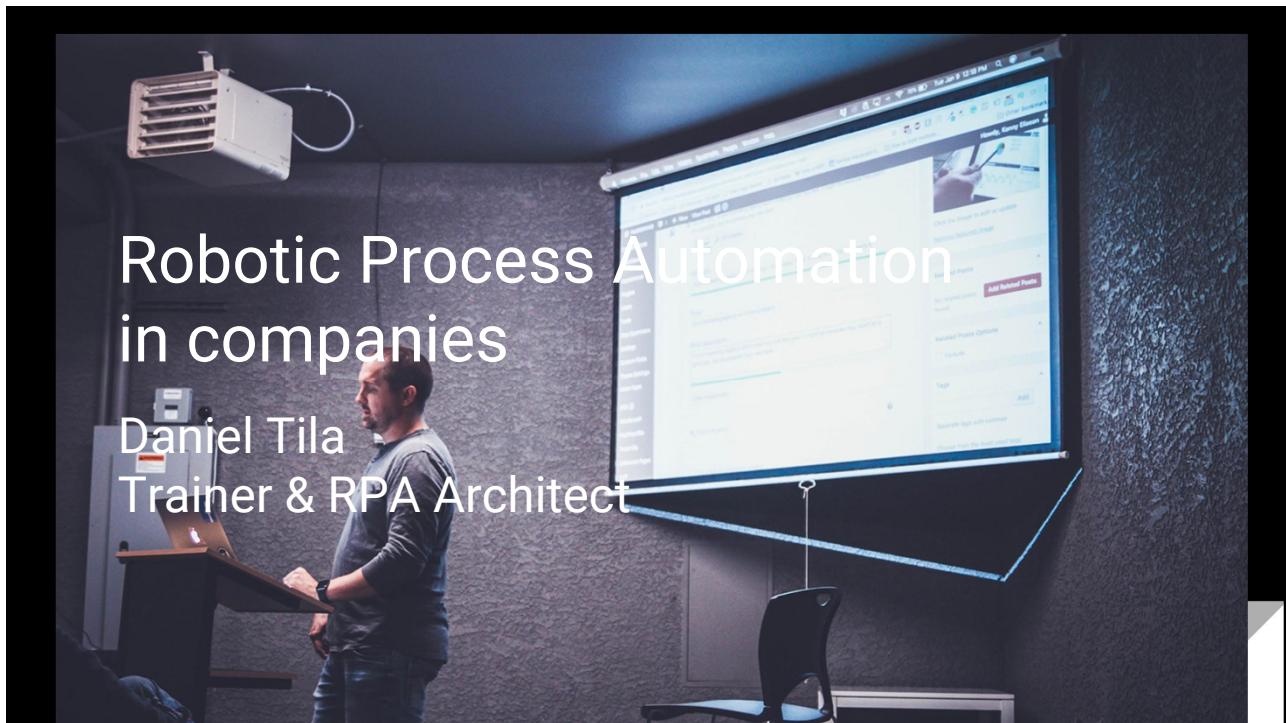




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1

About me



Daniel Tila

Graduated Computer Science

Certified UiPath Developer & Architect

RPA Consultant, Trainer

Co-founder of Automation Pill

LinkedIn/Facebook @Automation Pill

<https://automationpill.com>

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Let's know each other



3

What is your expectation

A question you have about this workshop



4



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What is an automation



5

What automations are you thinking to?



6



Why we do it?



7

Facts about automation



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Agenda

- About automation
- What & why RPA
- Robot structure & lifecycle
- Company profile
- Startups & corporations
- Employee education
- RPA in companies
- Machine Learning
- Conclusions

9

What is an automation

- A set of steps that are performed automatically
- Rules that they have been written
- Something well established
- A process that is followed

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Why automation exists

To get rid of the tasks

Gain time

Avoid mistakes

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Where automation can exist?

Network Engineer

Financial

QA Tester

Human Resource

Marketing Manager

Operations

Project Manager

Sales

Customer Call Center

Marketing

Banking industry

Health

PR



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Does it worth to automate?



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How can we implement such automations?



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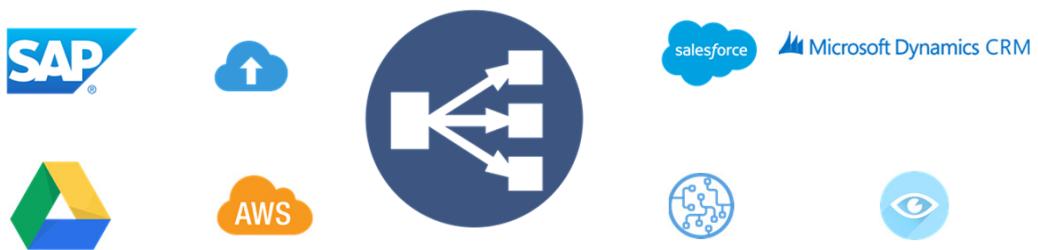


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Automation solutions



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How many of you are using
one of these



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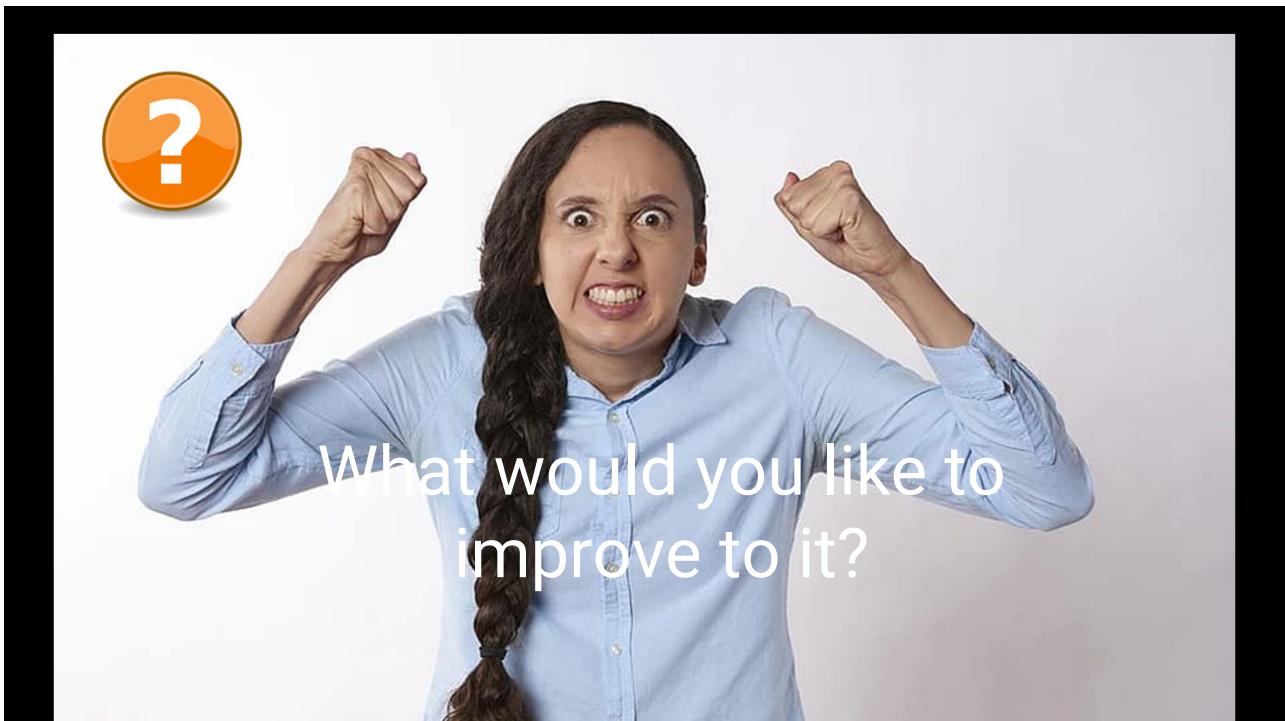


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Are these solutions fit per
your organization?



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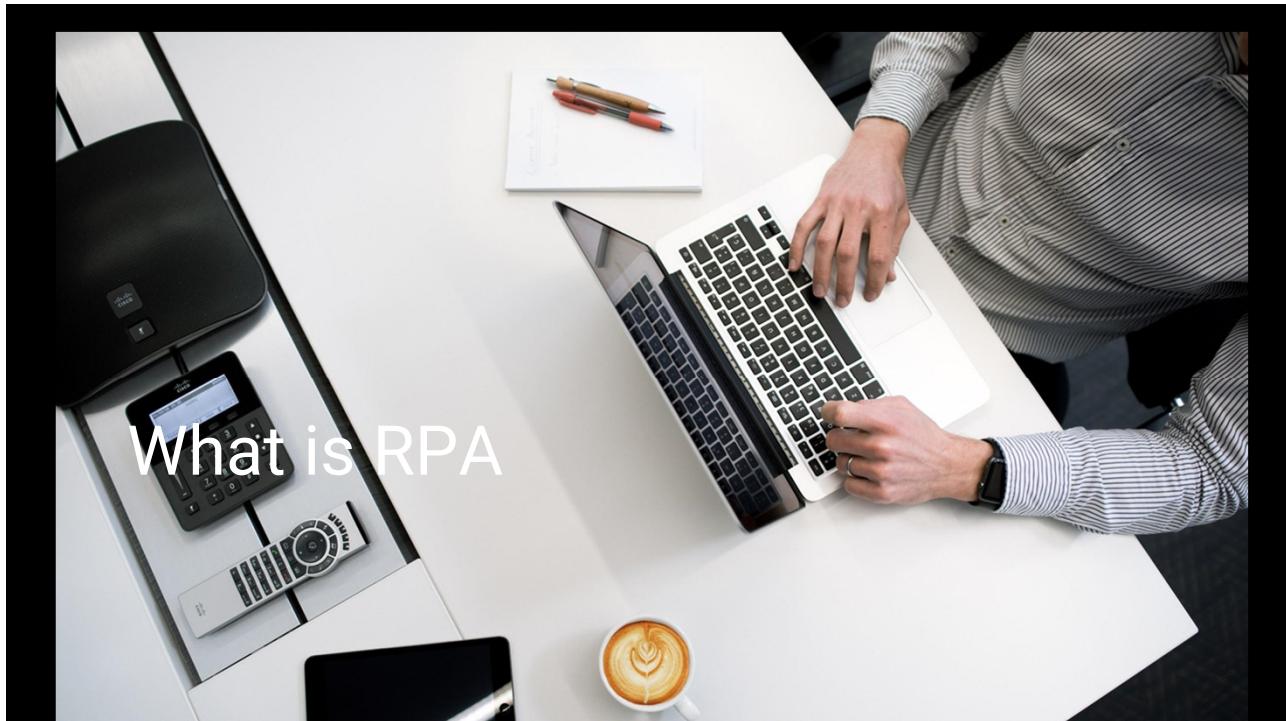


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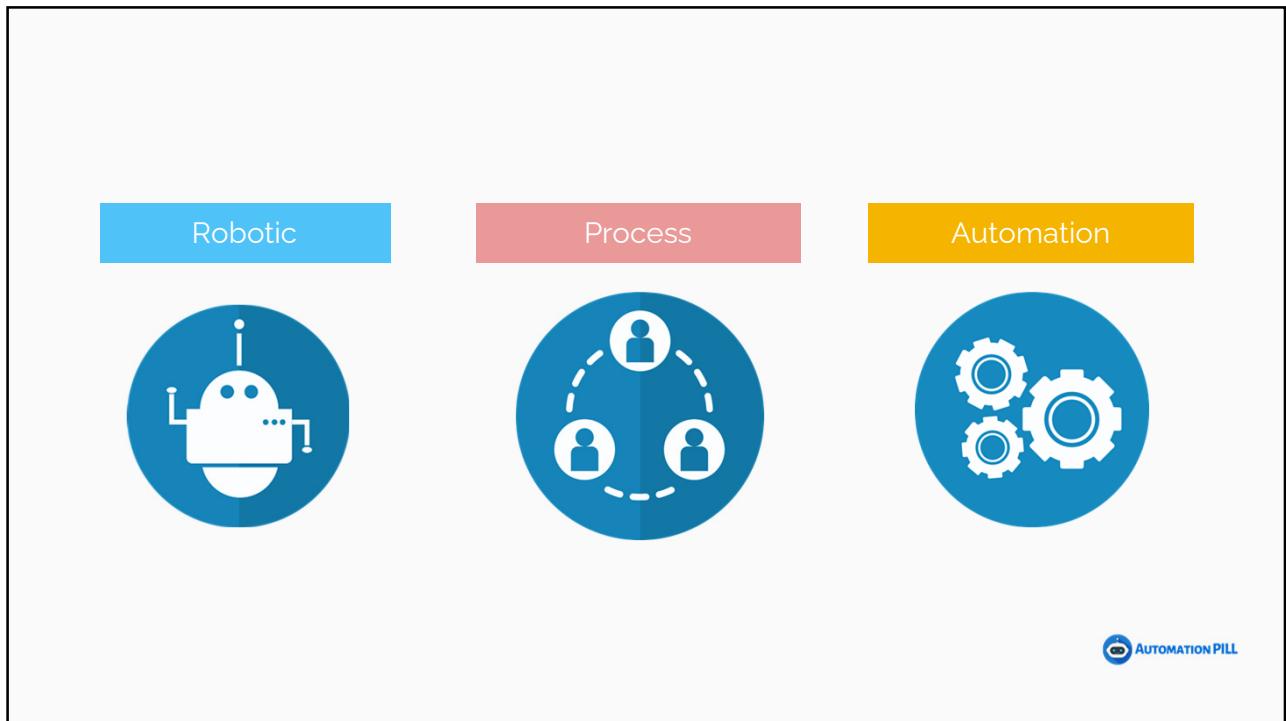


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Emulates human actions



Uses the same input



Communicates with existing systems



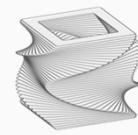
21



What can do

Ecommerce example

- Finds the information faster
- Make simple decisions
- Transfer clear information
- Interact with other systems



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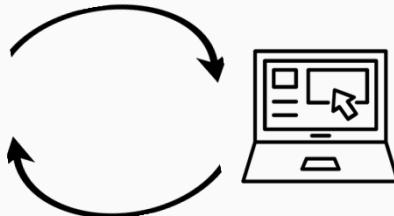
What can do

Finds the information faster

Make simple decisions

Transfer clear information

Interact with other systems



23



What can do

Finds the information faster

Make simple decisions

Transfer clear information

Interact with other systems



What can not do

Work with physical documents

Decide based on context



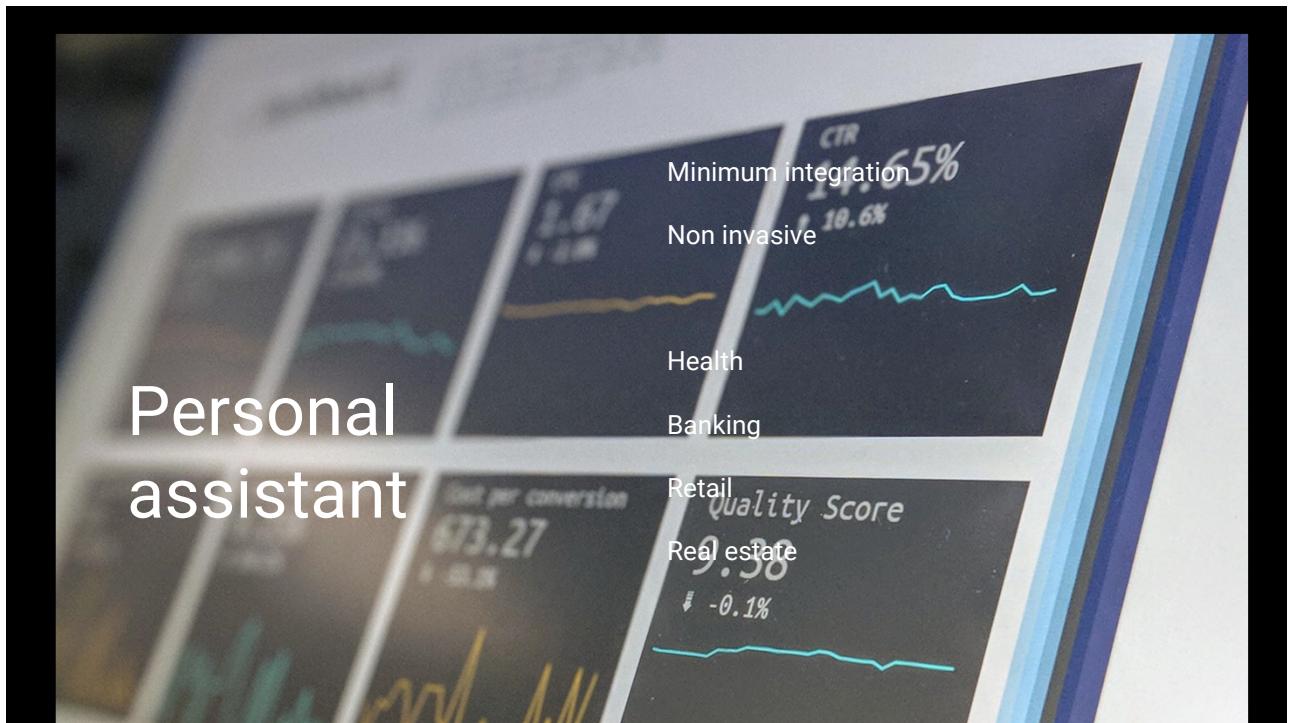
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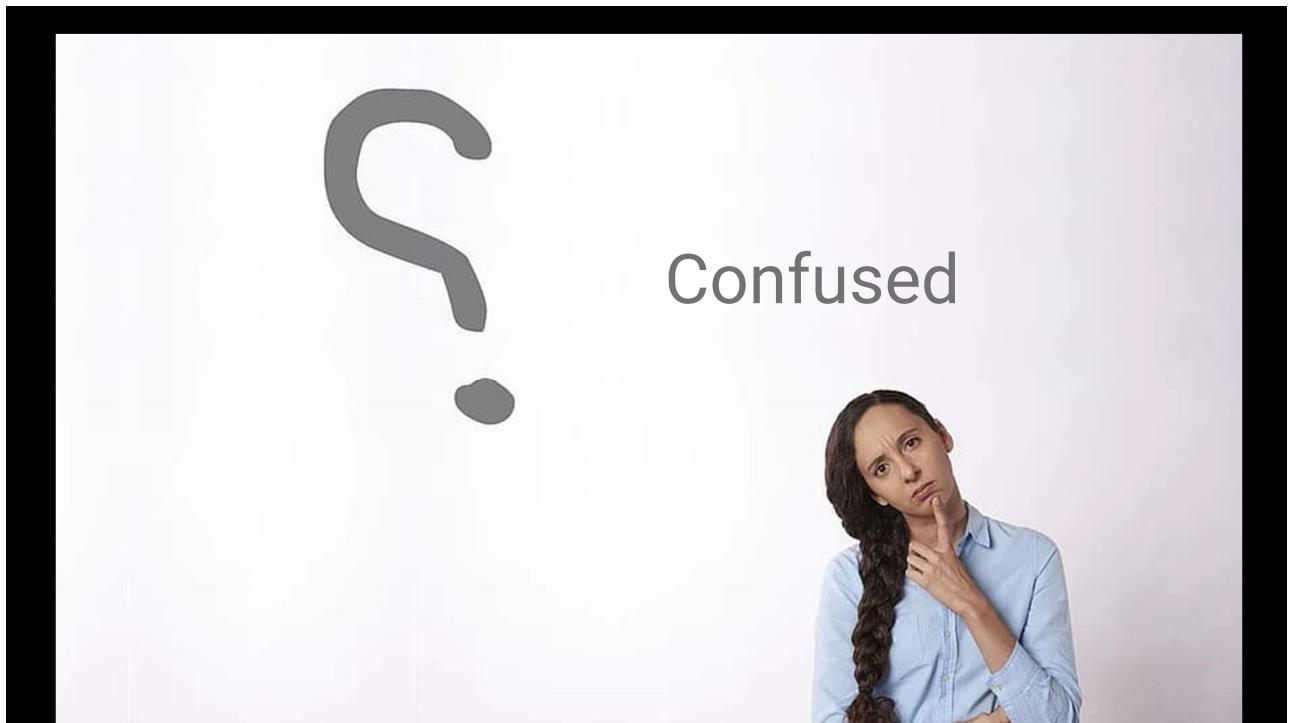
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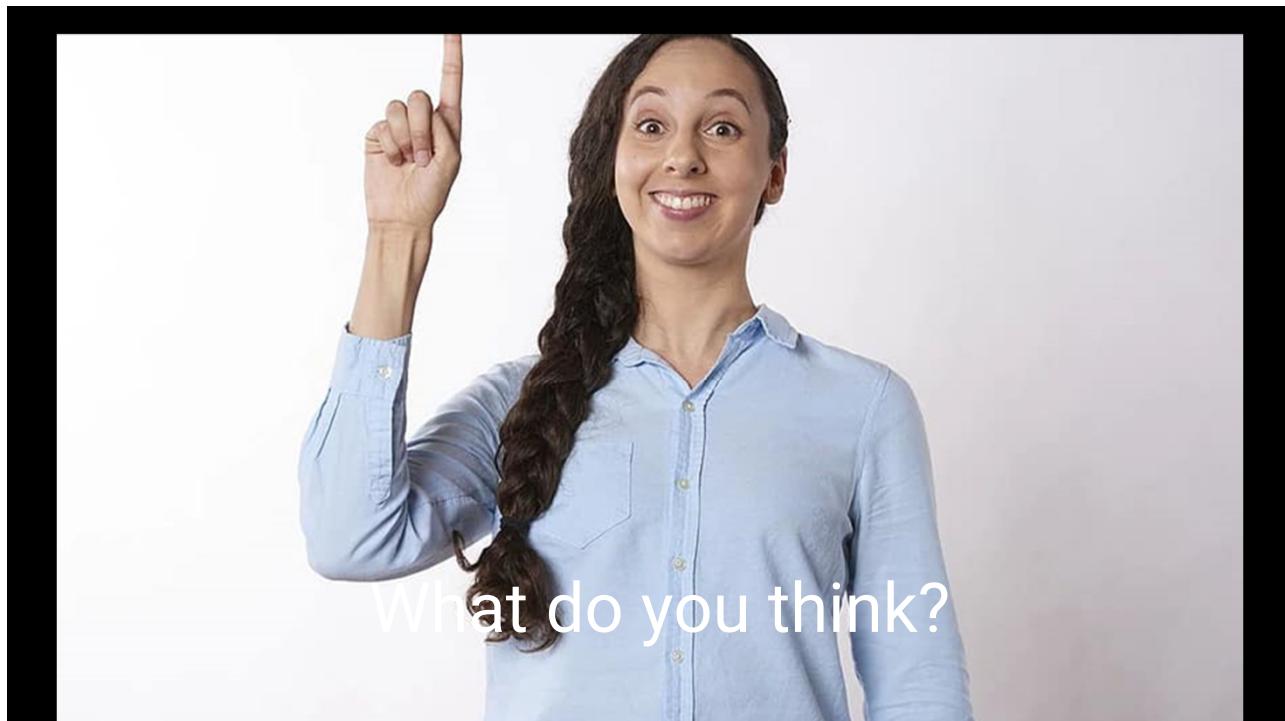


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Example



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Benefits of RPA

- Robots operate relentless 24/7
- Payback in a few months
- Costs can be reduced by 80%
- Higher throughput computing
- Eliminate human errors
- Empowering existing IT systems

AUTOMATION PILL

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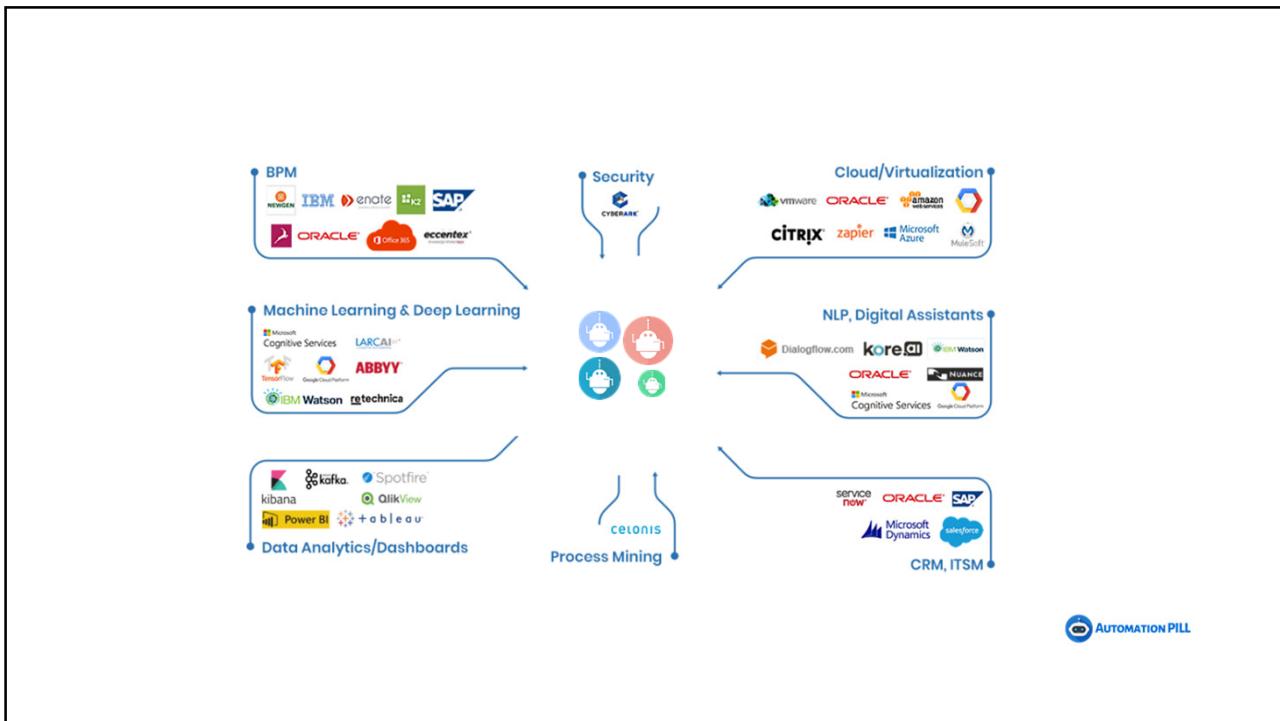


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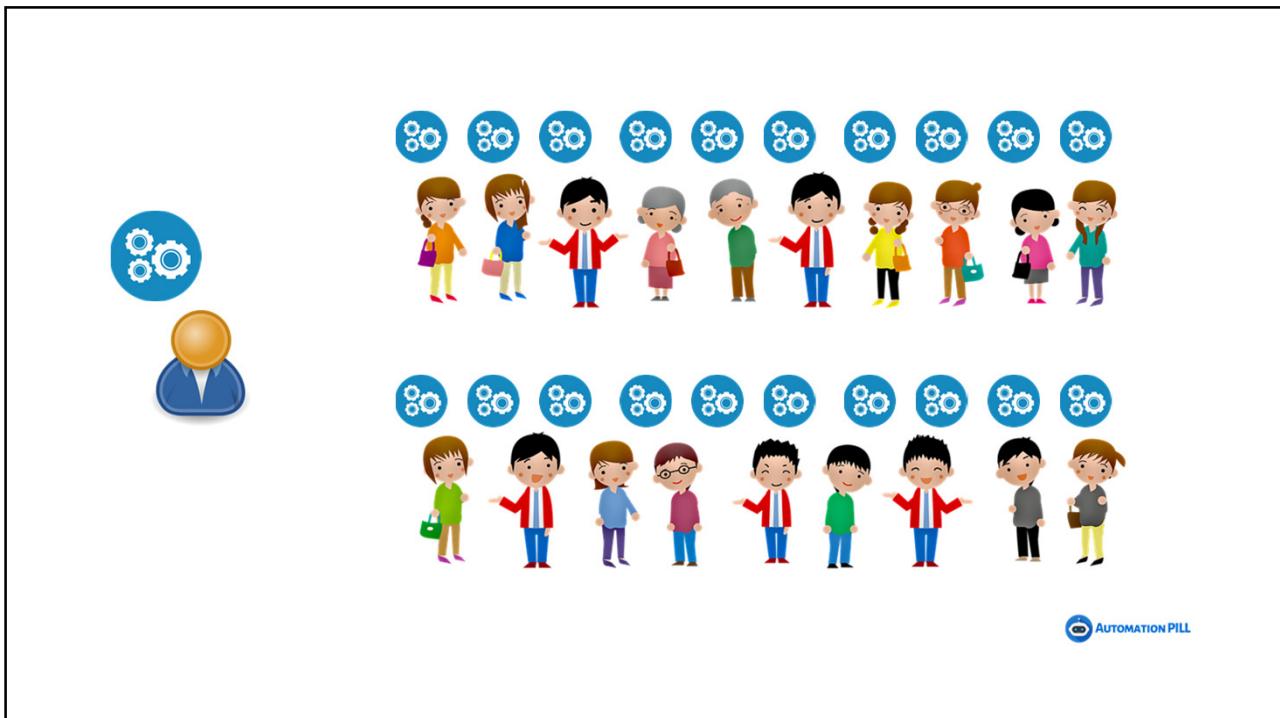


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Why do we automate?



Be competitive



Win time



Avoid mistakes



Focus on growth

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Industries



- BFSI
- Manufacturing
- Pharma & Healthcare
- Retail
- Telecom & IT
- Others

\$10.7 billion by 2027

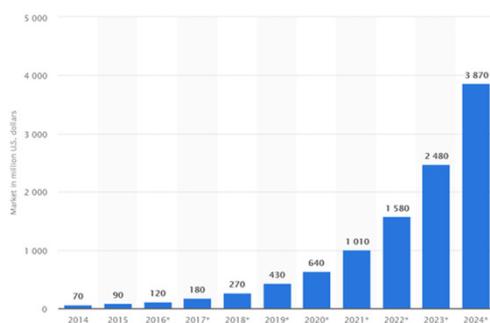
33% CAGR

Source: grandviewresearch.com



35

Market size



Source: grandviewresearch.com



36



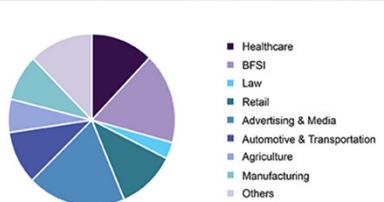
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AI impact

Global artificial intelligence market share, by end use, 2018 (%)



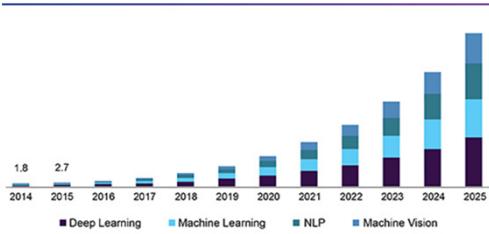
Computer Vision AI



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AI impact

North America AI market size, by technology, 2014 - 2025 (USD Billion)



Source: grandviewresearch.com



38

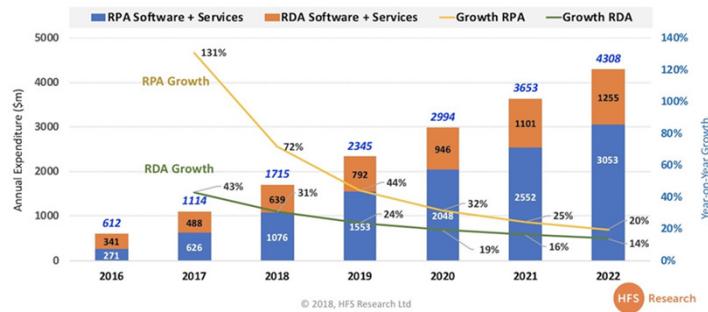


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High demand



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Why UiPath



Overall Peer Rating	UiPath + Show Products (1)	Automation Anywhere + Show Products (1)	Blue Prism + Show Products (1)
Willingness to recommend	4.6 ★★★★★ (951 reviews) 93% Yes 🙌 951 Reviewer(s)	4.5 ★★★★★ (702 reviews) 85% Yes 🙌 702 Reviewer(s)	4.4 ★★★★★ (206 reviews) 83% Yes 🙌 206 Reviewer(s)
Product Capabilities	1 2 3 4 5 951 Reviewer(s) 4.6	1 2 3 4 5 702 Reviewer(s) 4.5	1 2 3 4 5 206 Reviewer(s) 4.4
Scalability	1 2 3 4 5 940 Reviewer(s) 4.6	1 2 3 4 5 694 Reviewer(s) 4.4	1 2 3 4 5 196 Reviewer(s) 4.4
Integration	1 2 3 4 5 940 Reviewer(s) 4.5	1 2 3 4 5 694 Reviewer(s) 4.4	1 2 3 4 5 196 Reviewer(s) 4.4
Customization	1 2 3 4 5 939 Reviewer(s) 4.5	1 2 3 4 5 693 Reviewer(s) 4.3	1 2 3 4 5 194 Reviewer(s) 4.2
Ease of use	1 2 3 4 5 939 Reviewer(s) 4.7	1 2 3 4 5 692 Reviewer(s) 4.6	1 2 3 4 5 194 Reviewer(s) 4.5

Source: Gartner



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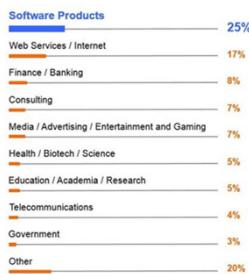


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Market size

Most software developers don't work in software firms



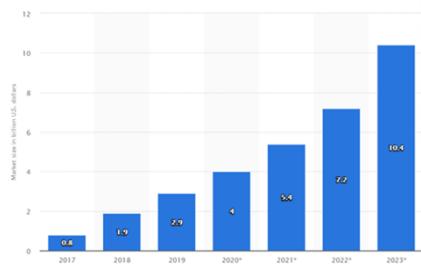
Source: Stack Overflow Developer Survey 2018

Source: stackoverflow.com

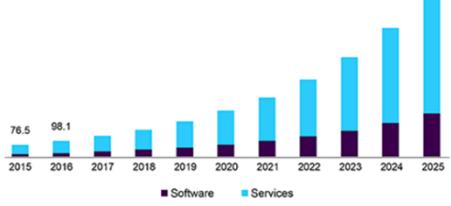


41

Market revenue



Source: statista



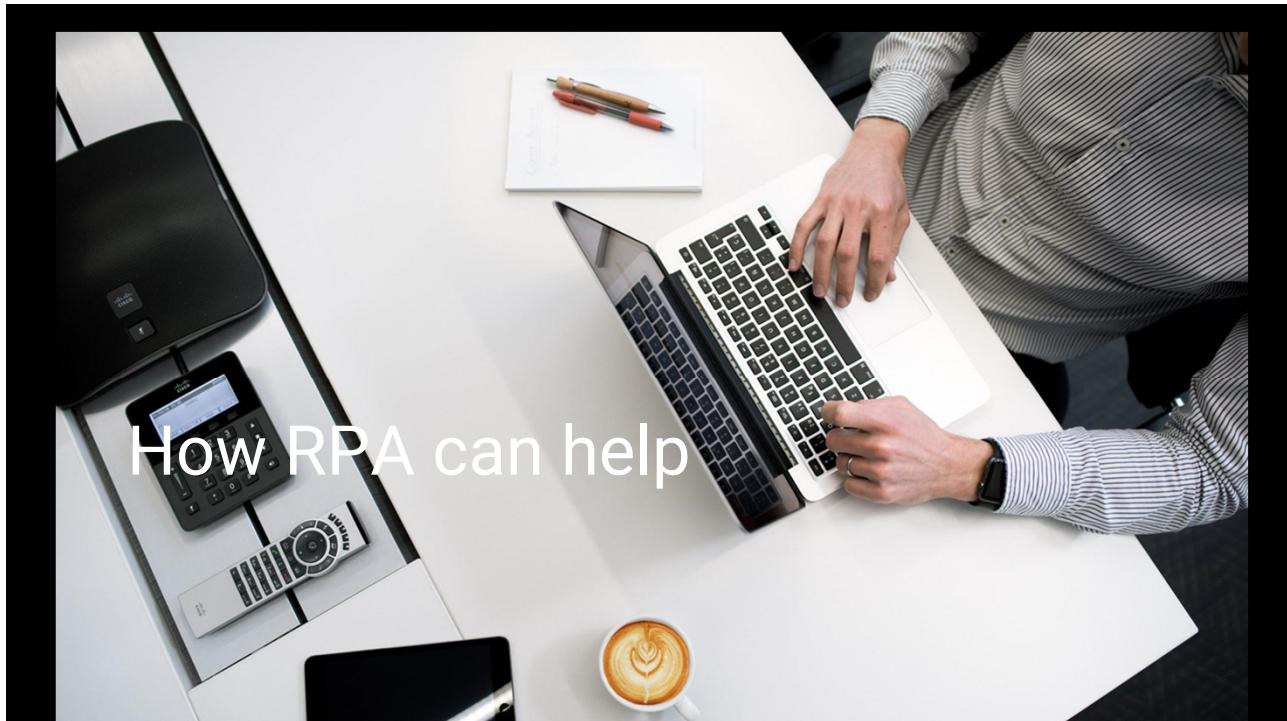
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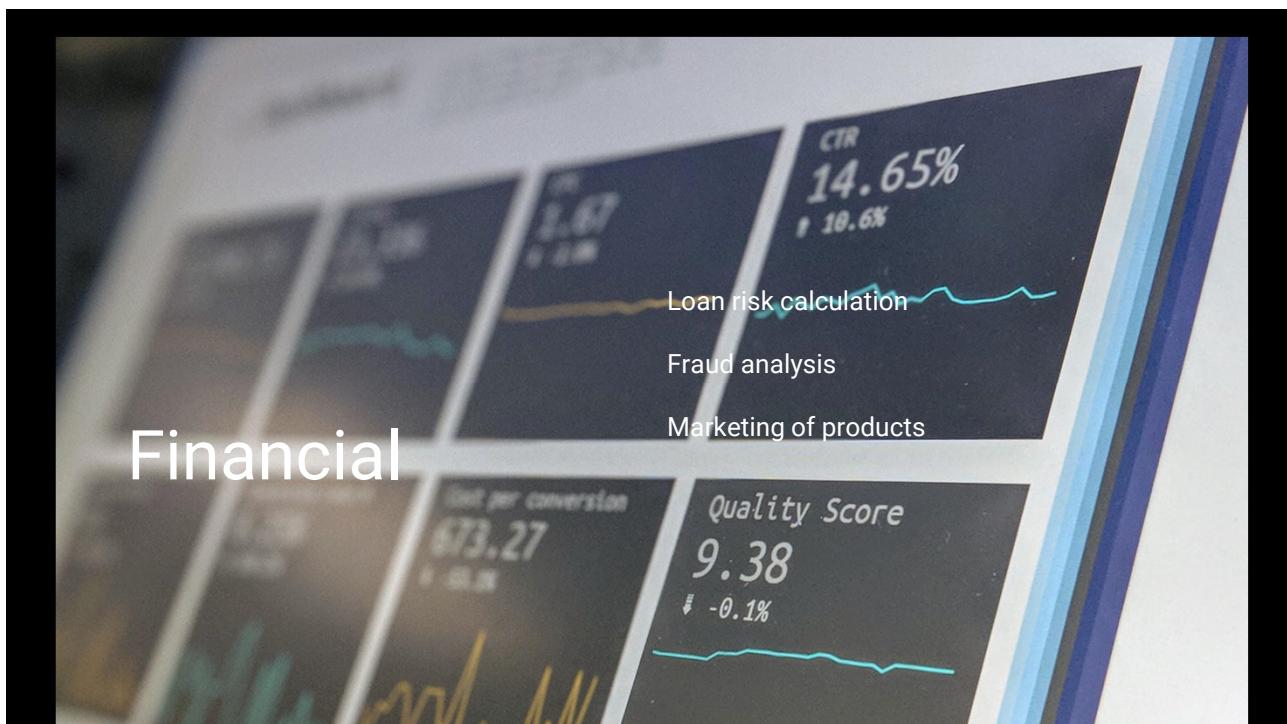
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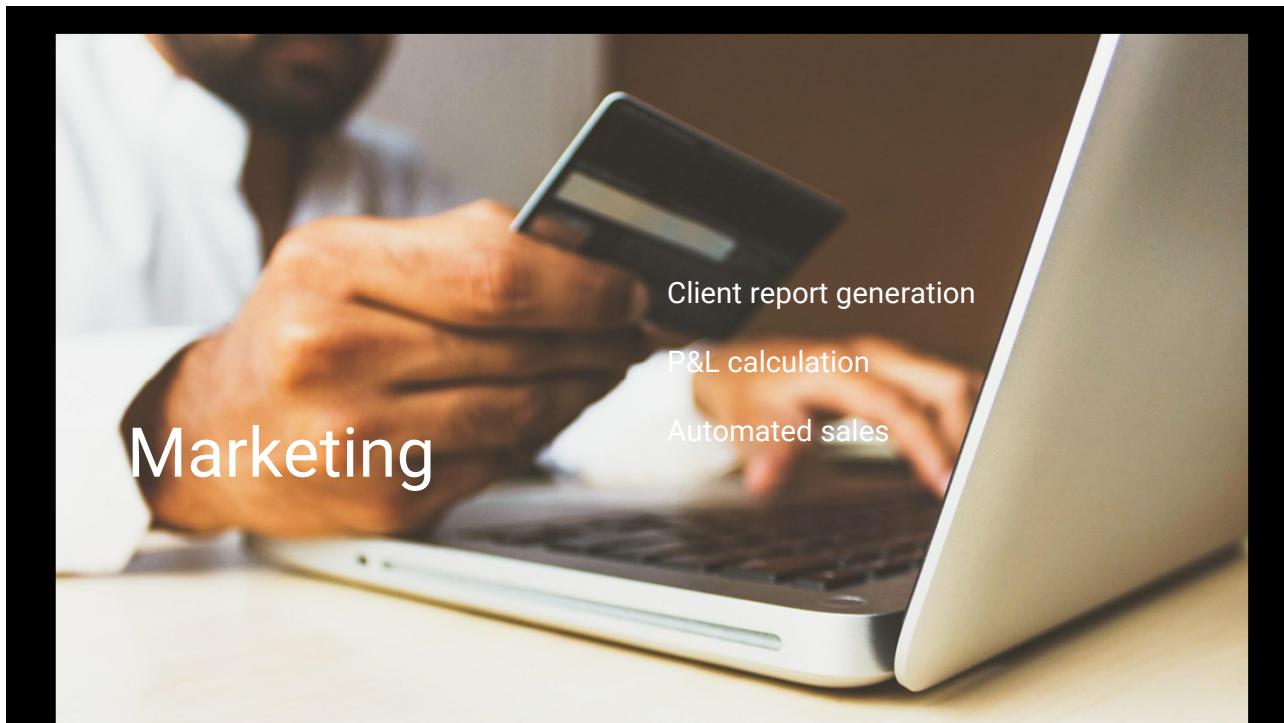
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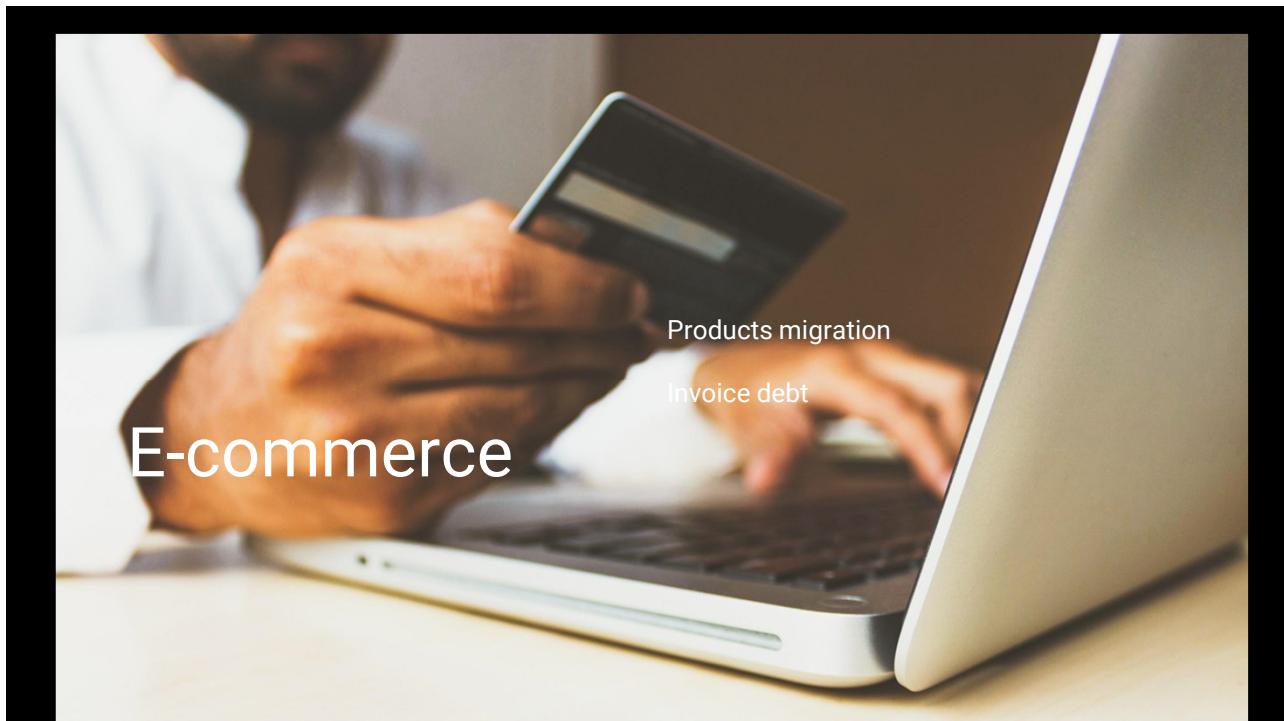
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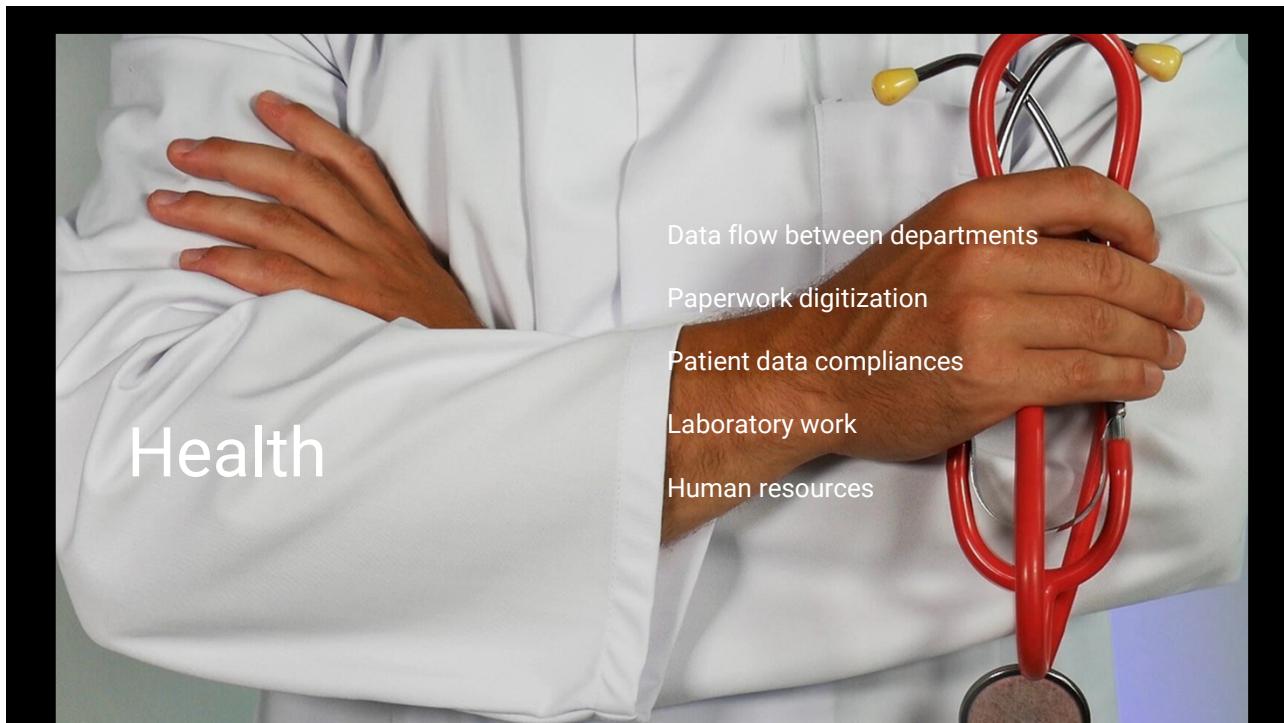


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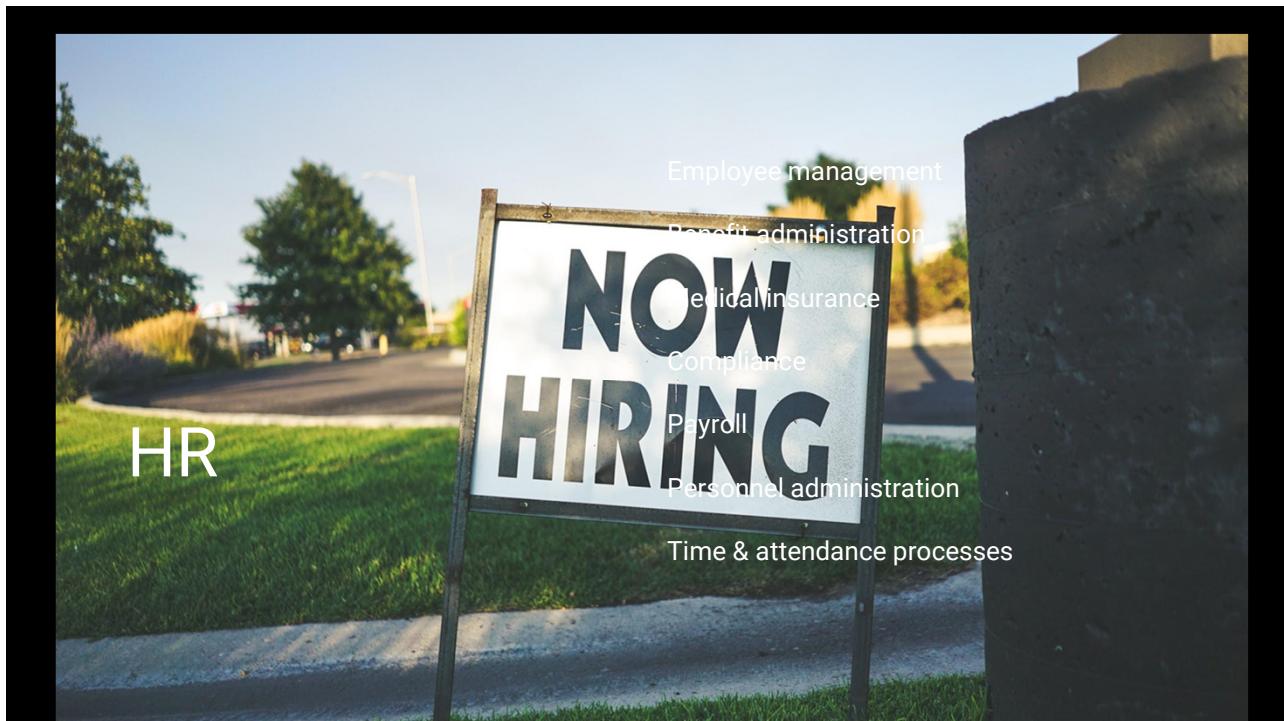


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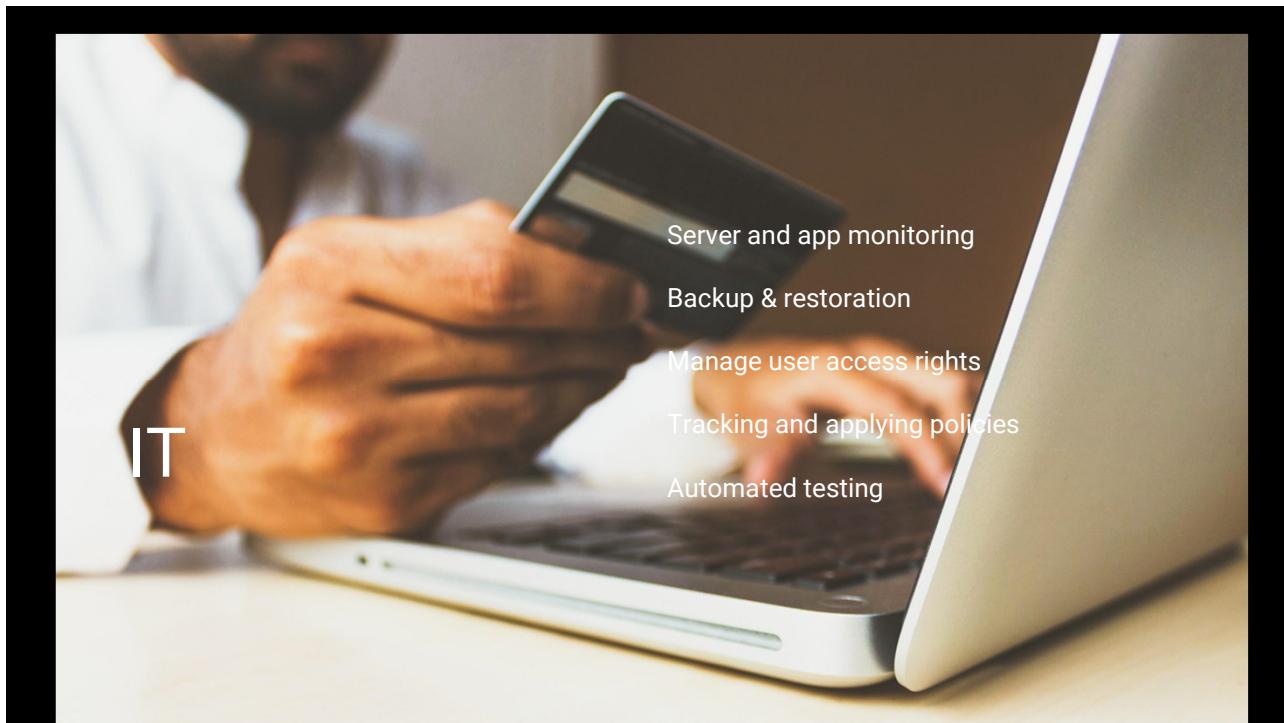
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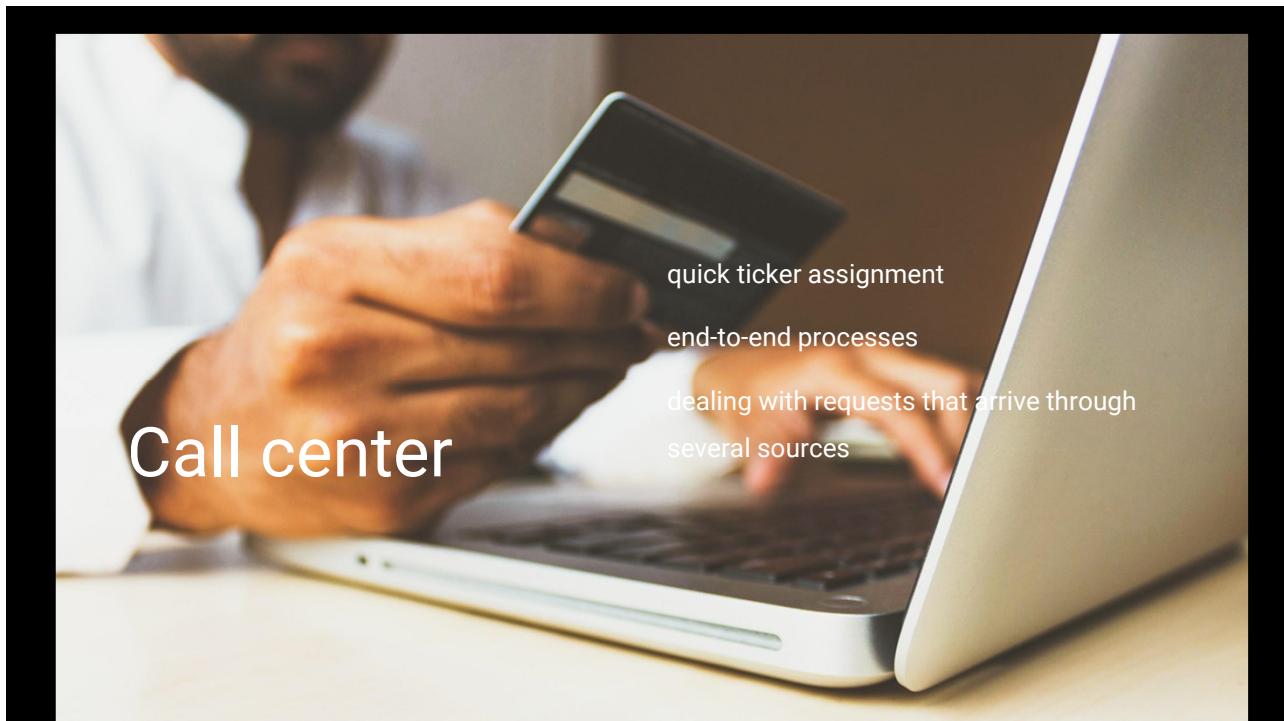
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How robots work?



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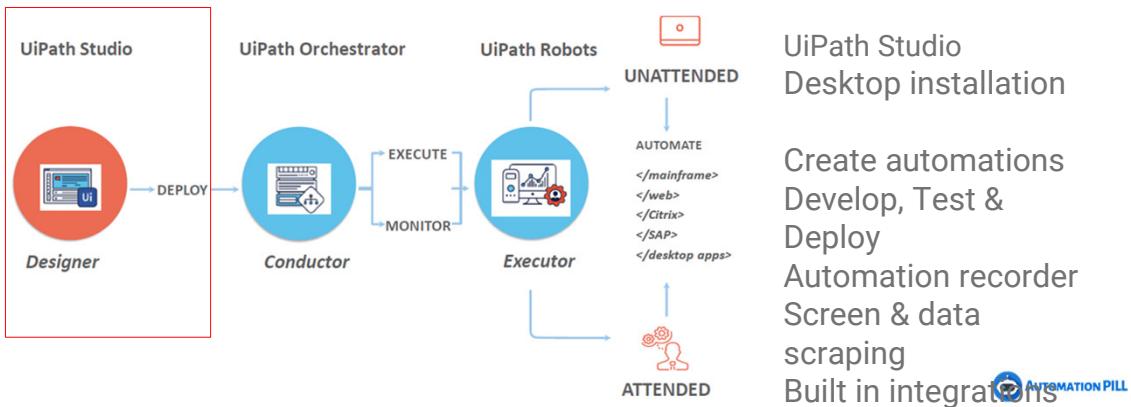
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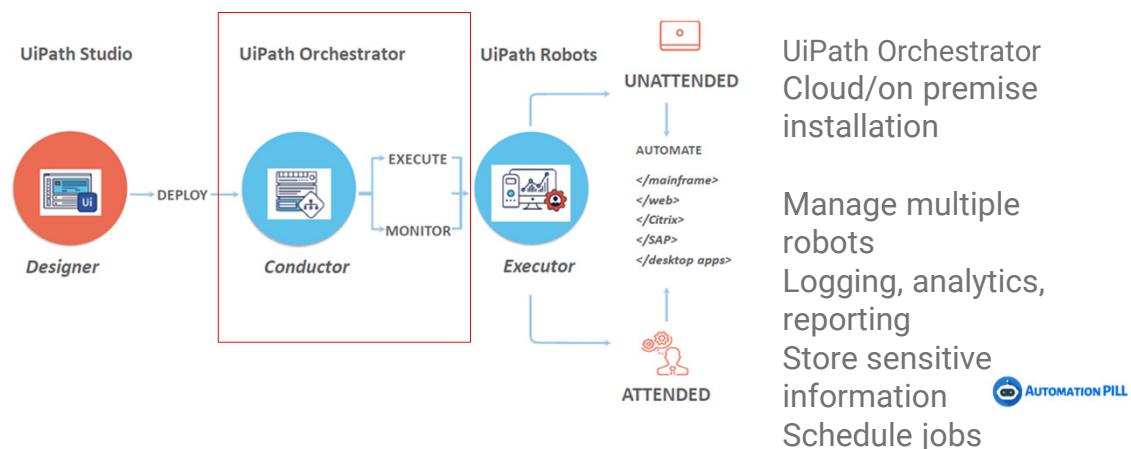
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Solution architecture



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Solution architecture



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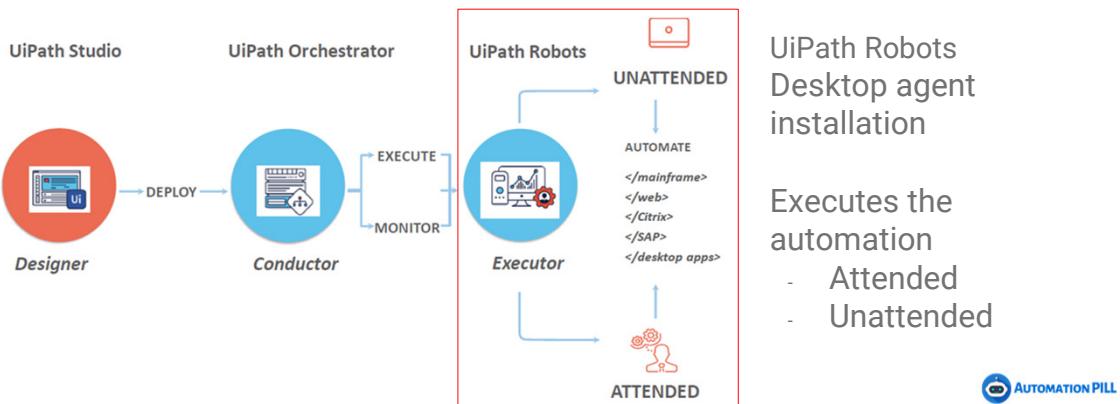


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Solution architecture



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Attended vs Unattended

Attended

Share the same computer

Unattended

Use exclusively a computer



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Attended vs Unattended

Attended

Share the same
computer

Unattended

Use exclusively a
computer



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Addons



Connect

Available at
connect.uipath.com



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Addons



Connect

Available at
connect.uipath.com

Collaboration hub

Connects providers
with developers



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Machine learning example



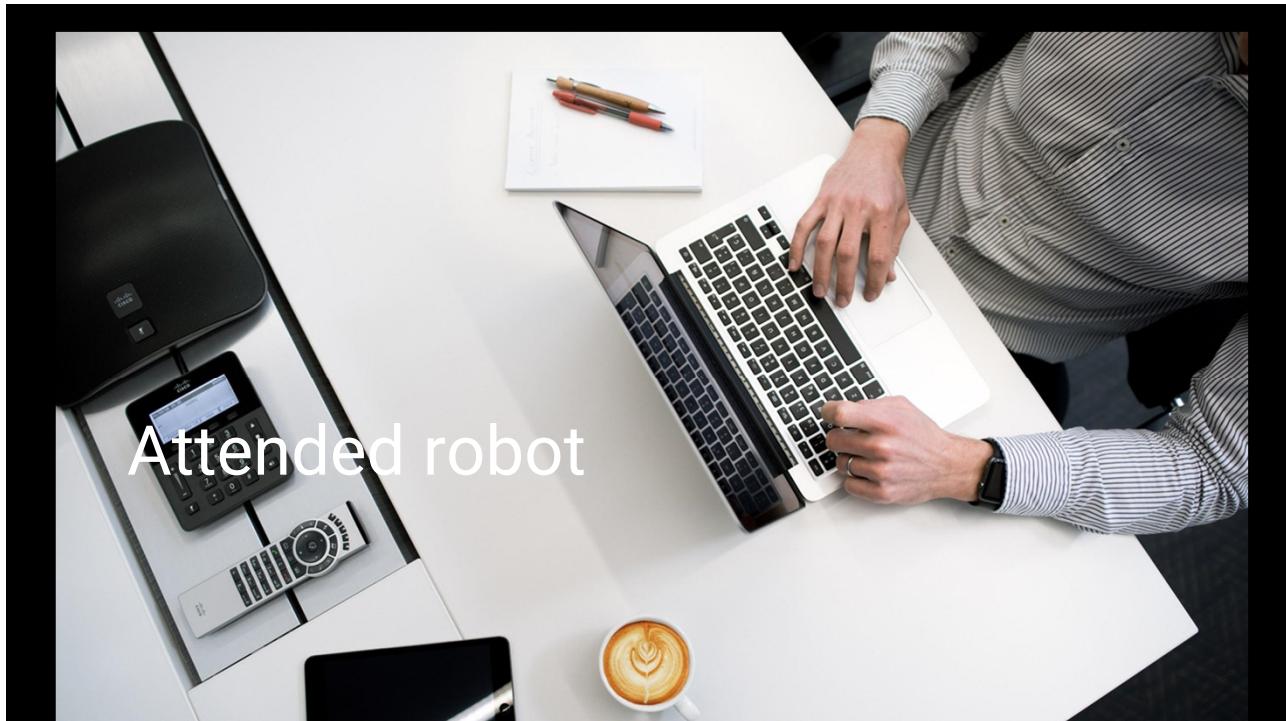
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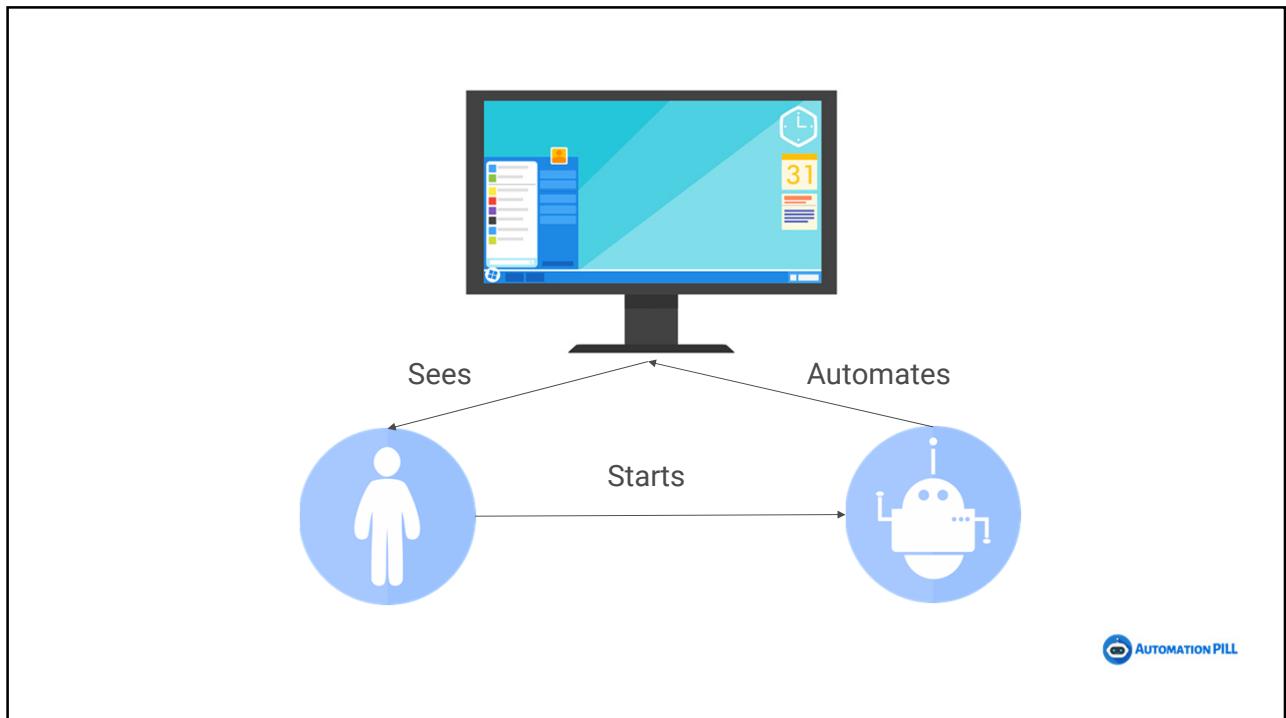
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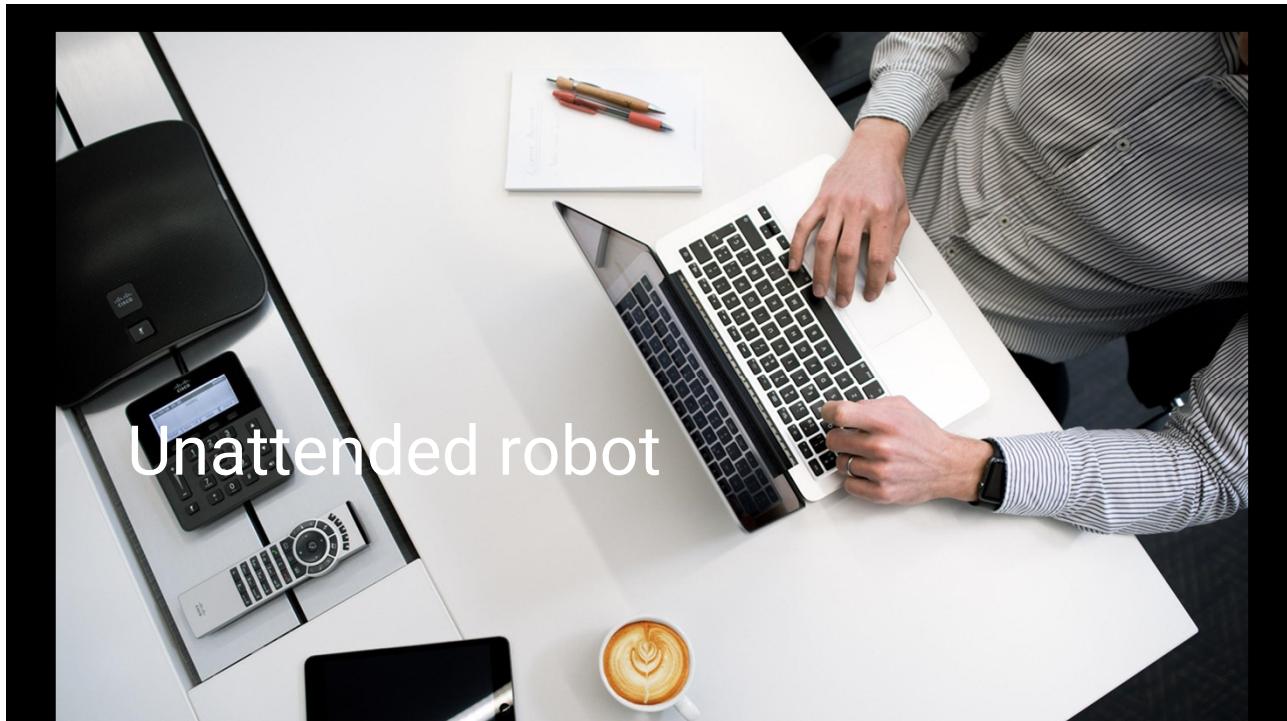


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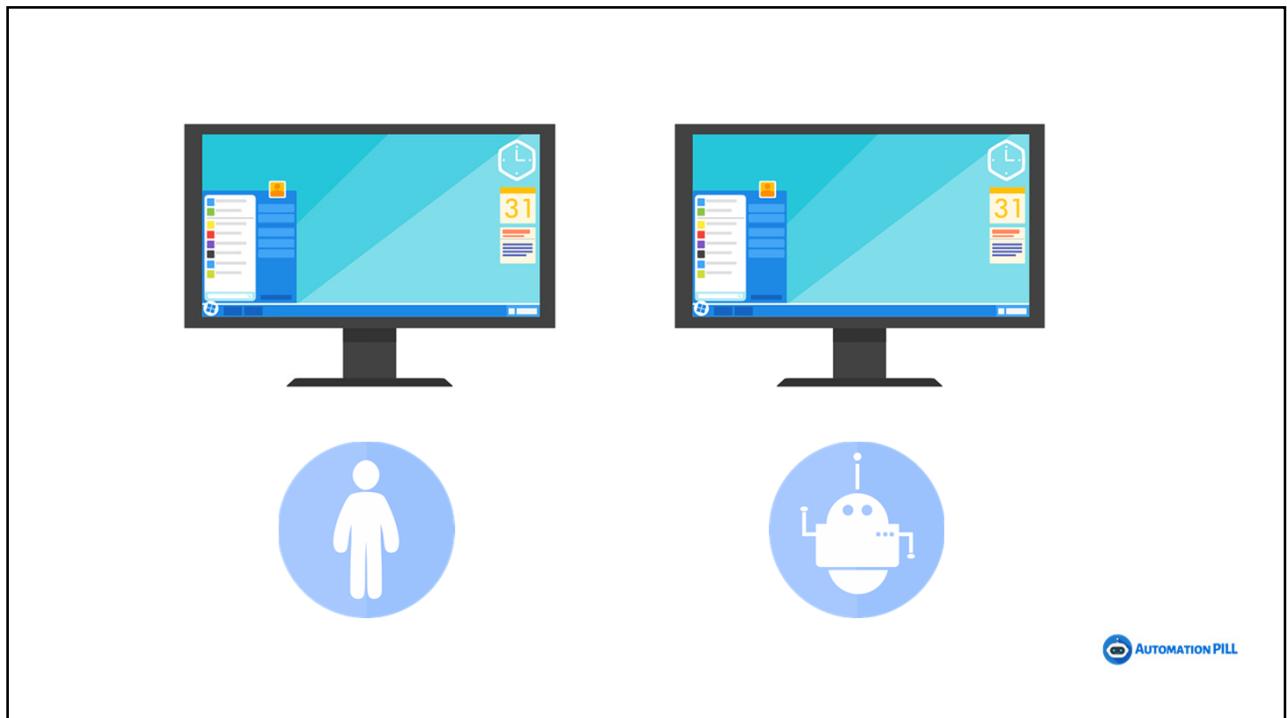


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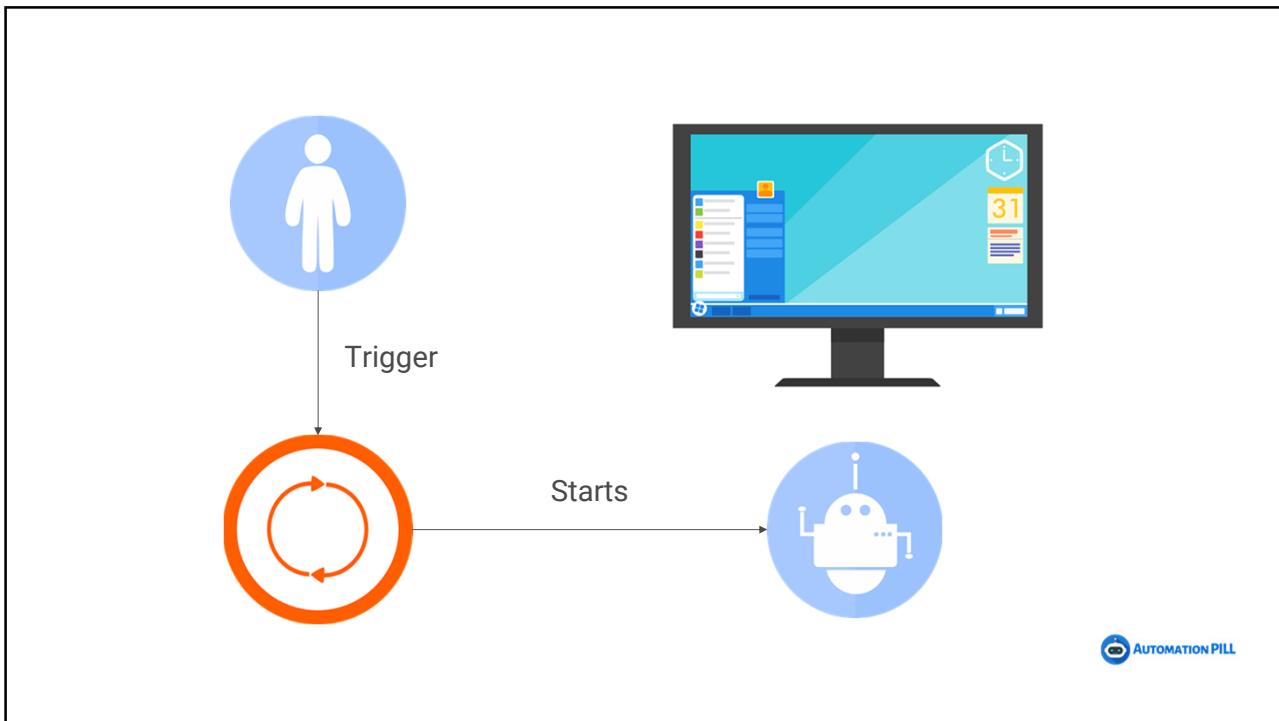


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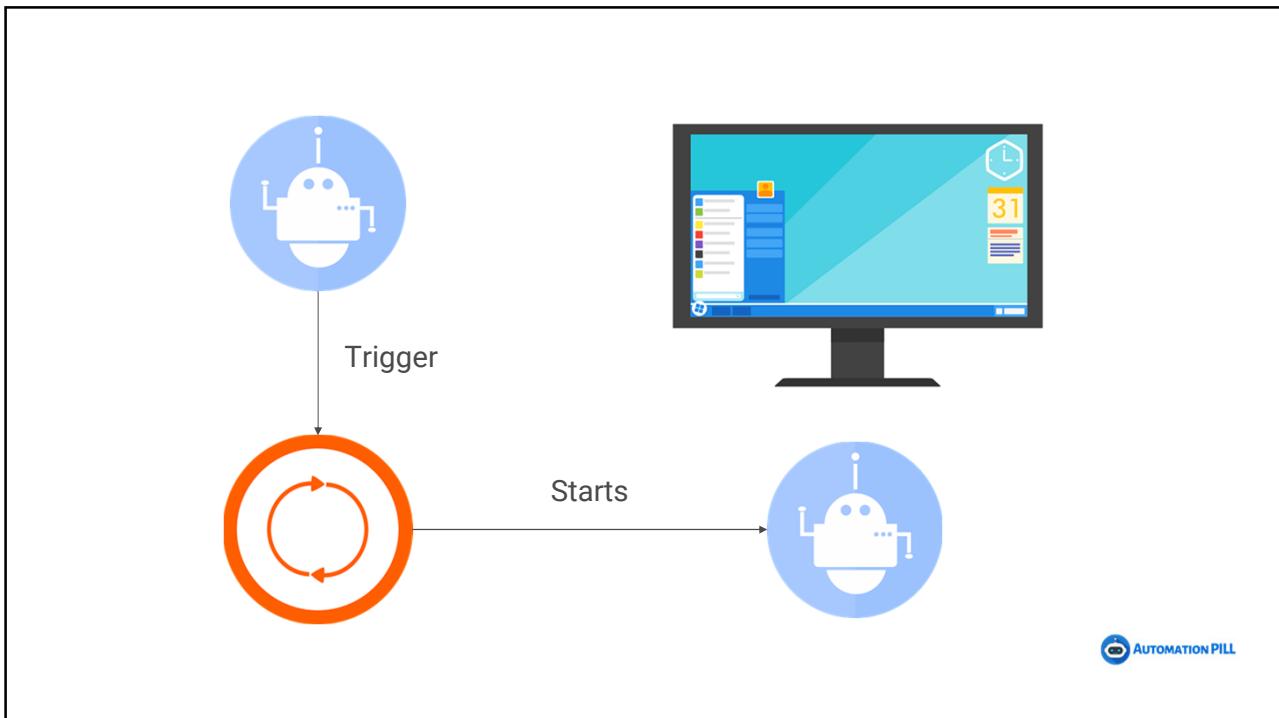


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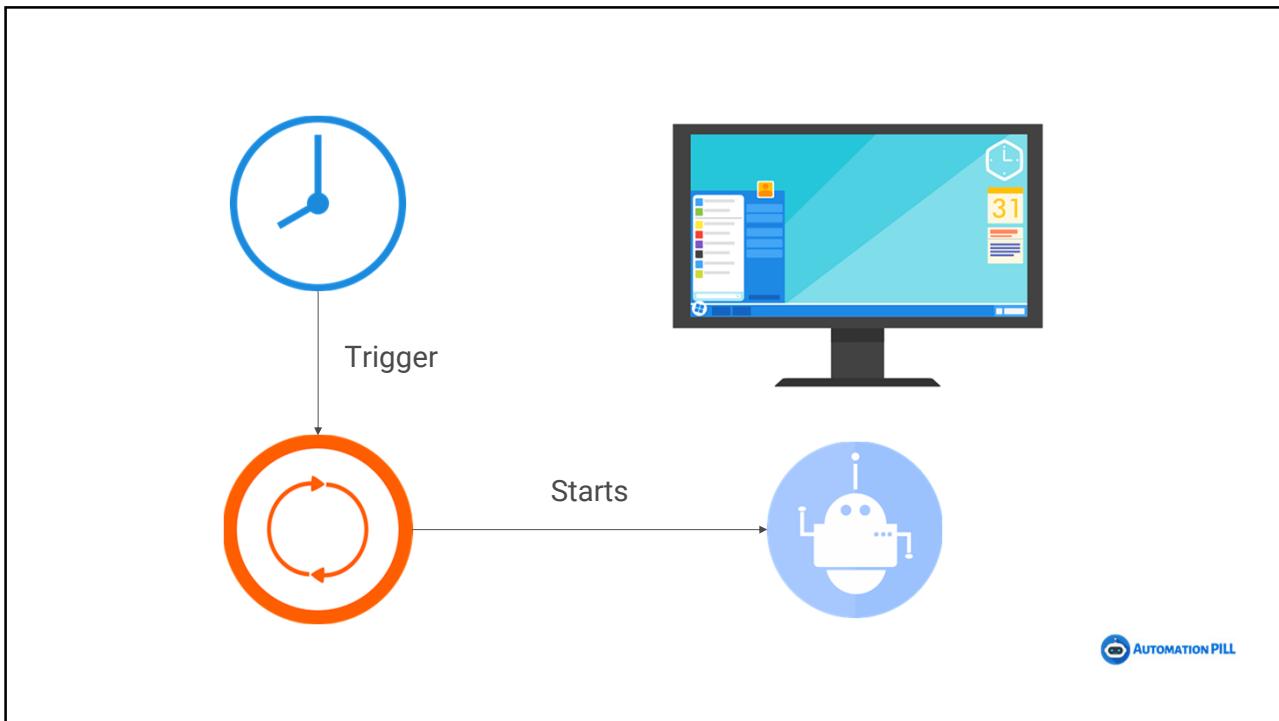
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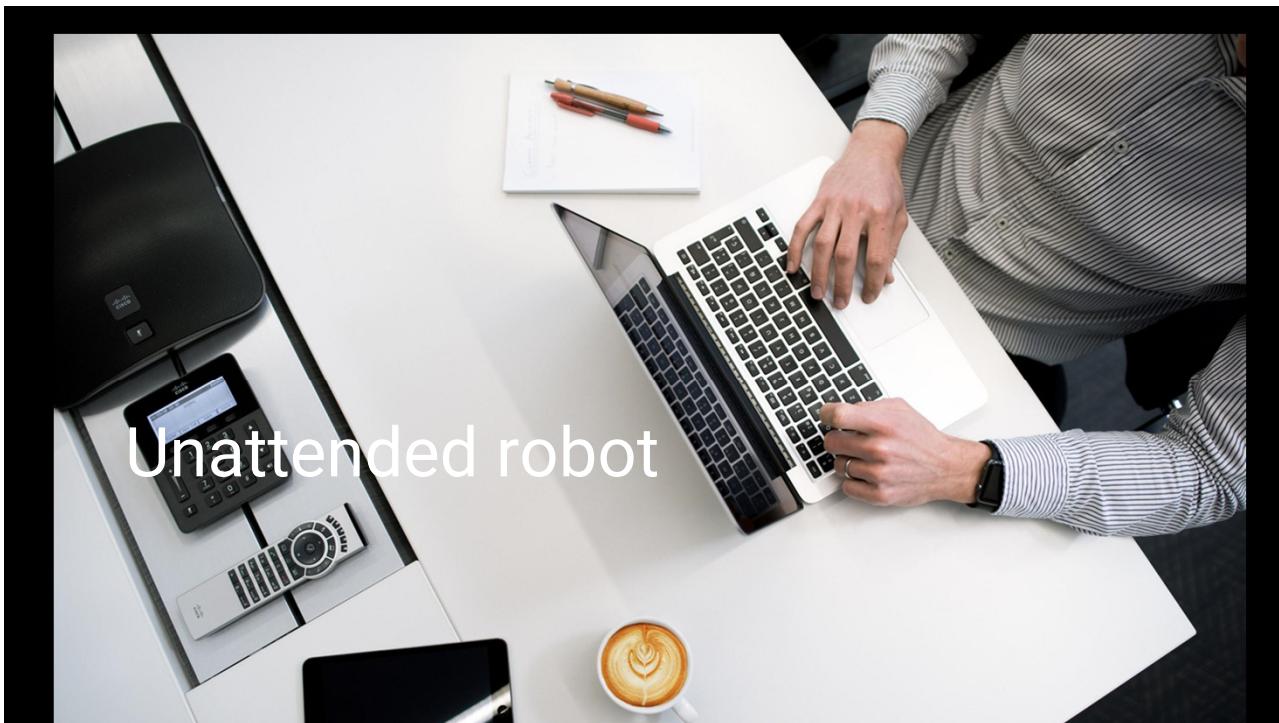
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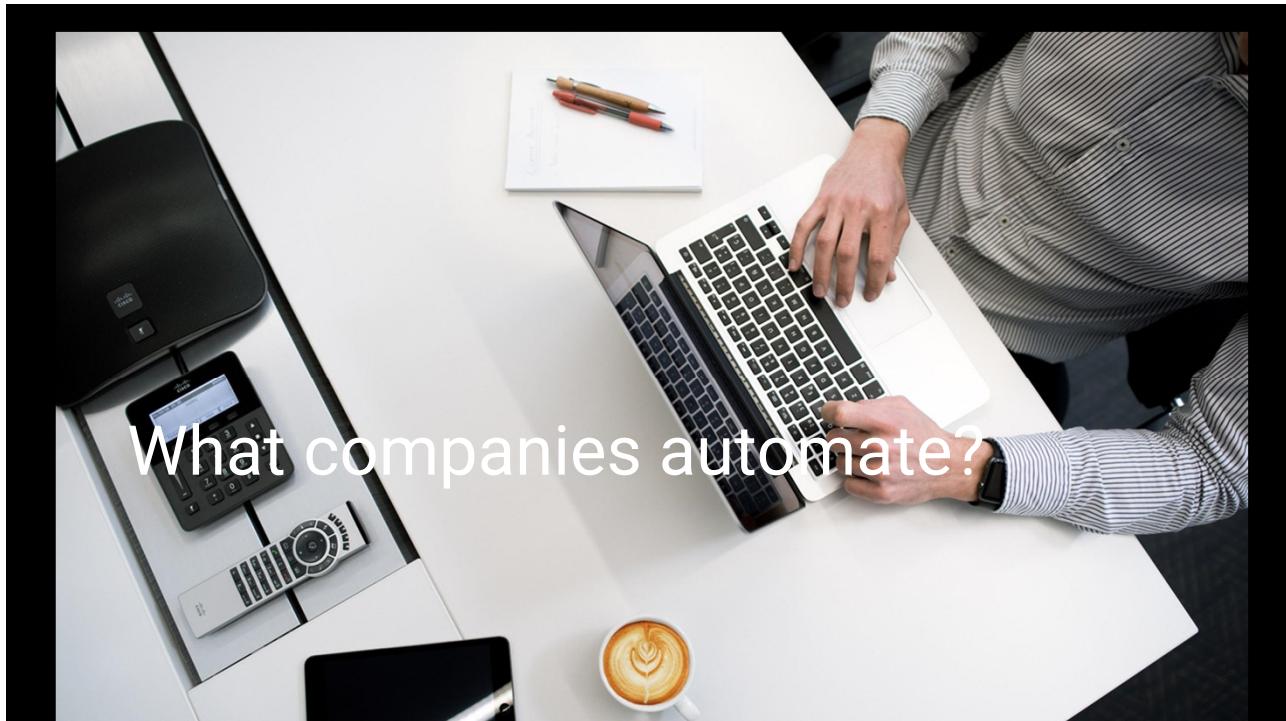
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Simplify the sale process

Context: The company uses SAP for the sales order. The sellers don't have access to the main headquarter, so a human operator is processing the requests through email

After automation:

- Improve the communication with people from on field
- Avoid human error

Return of investment: 0.3 FTE/zi, 50 FTE/month, 6 month ROI



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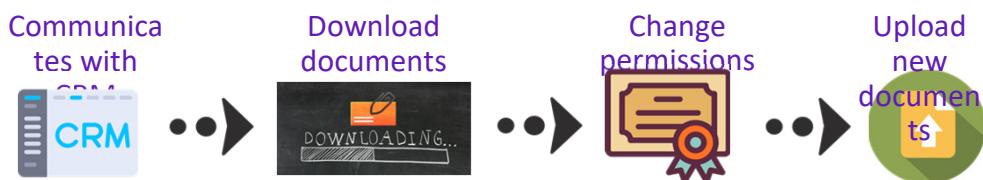
Service support ticketing

Context: Service desk support team spends 2 hours/day to encrypt attachments available in the ticketing platform ~2000 tickets/month

After automatization:

- Each encryption can have it's own priority
- Accelerarea procesării ticketelor cu impact critic pentru organizație

Return of investment: 0.5 FTE/month, 3 month ROI



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Customer contract service

Context: In a medical company, 3 people are processing contract modifications and put them manually in a CRM system. Volume 18.000 contracts/month

After automatization:

- Process the contracts during the night
- Higher throughput of contracts, less people

Return of investment: 0.5 FTE/month, 4 month ROI



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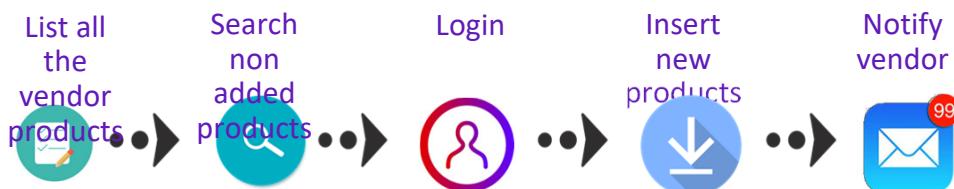
Client e-commerce enrollment

Context: In a e-commerce store, 1 person is doing the enrollment of all the clients. 300 products/month needs to be migrated

After automatization:

- Migration is done by the robot
- More clients are migrated faster

Return of investment: 0.6 FTE/month, 7 month ROI



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What clients say?



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As a small team, we know that saving time and energy out of repetitive tasks means a team focused more on what really matters.

.....

Netopia Payments

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As a company, we do invest a lot in digital systems. We have many systems functioning and we ended up doing a lot of repetitive work to integrate and validate flows. We didn't imagine that we could automate so many processes. Our focus has changed more on the client and we have increased the quality delivered.

Michael P, Ireland

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What can be automated?

- processes that do not change in short or medium timeframe
- repetitive processes, in terms of actions performed
- processes that require a significant number of resources and a wide time horizon, related to the entire business activity



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Poorly indicated to automate

- processes where human decision is crucial
- processes with high exception rate and without a well-defined way of exception treatment
- processes that happen once a month or less often



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RPA is the best solution?



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When RPA is not the solution

when trying to use RPA to automate what is essentially a broken process (“automate” not equal “fix”)

when not communicating enough with employees

when not encouraging collaboration between business and IT



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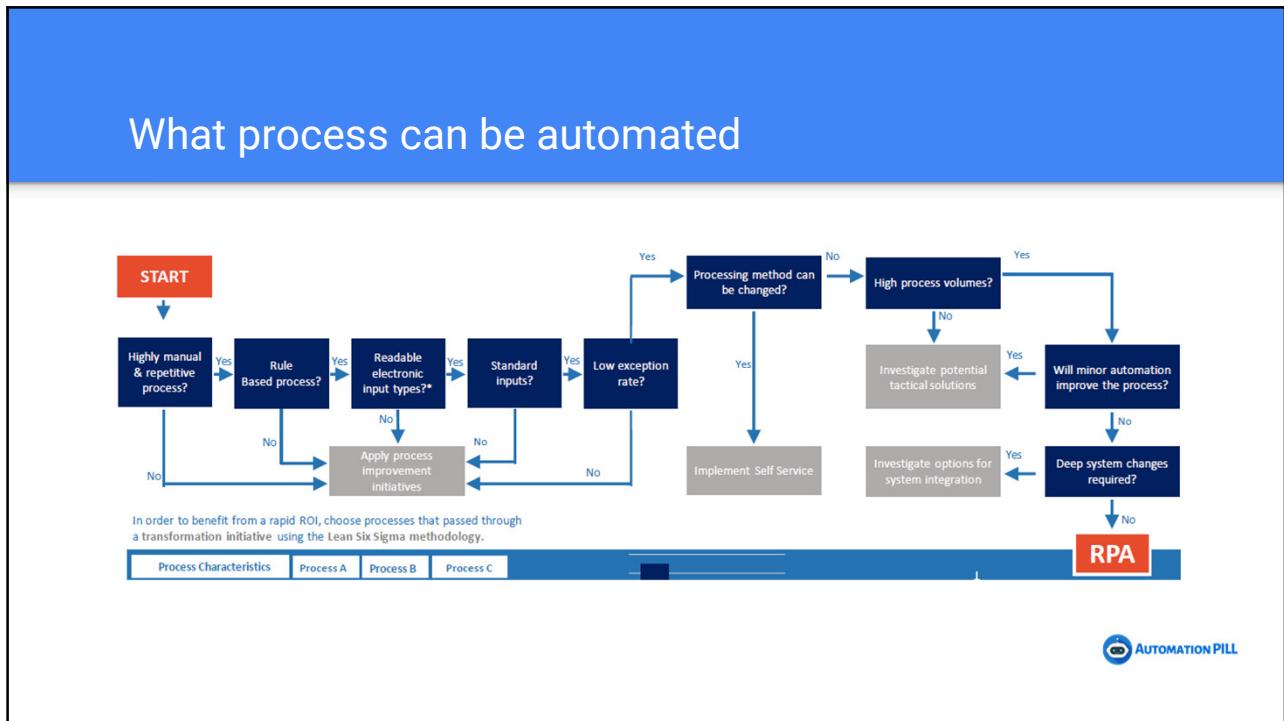


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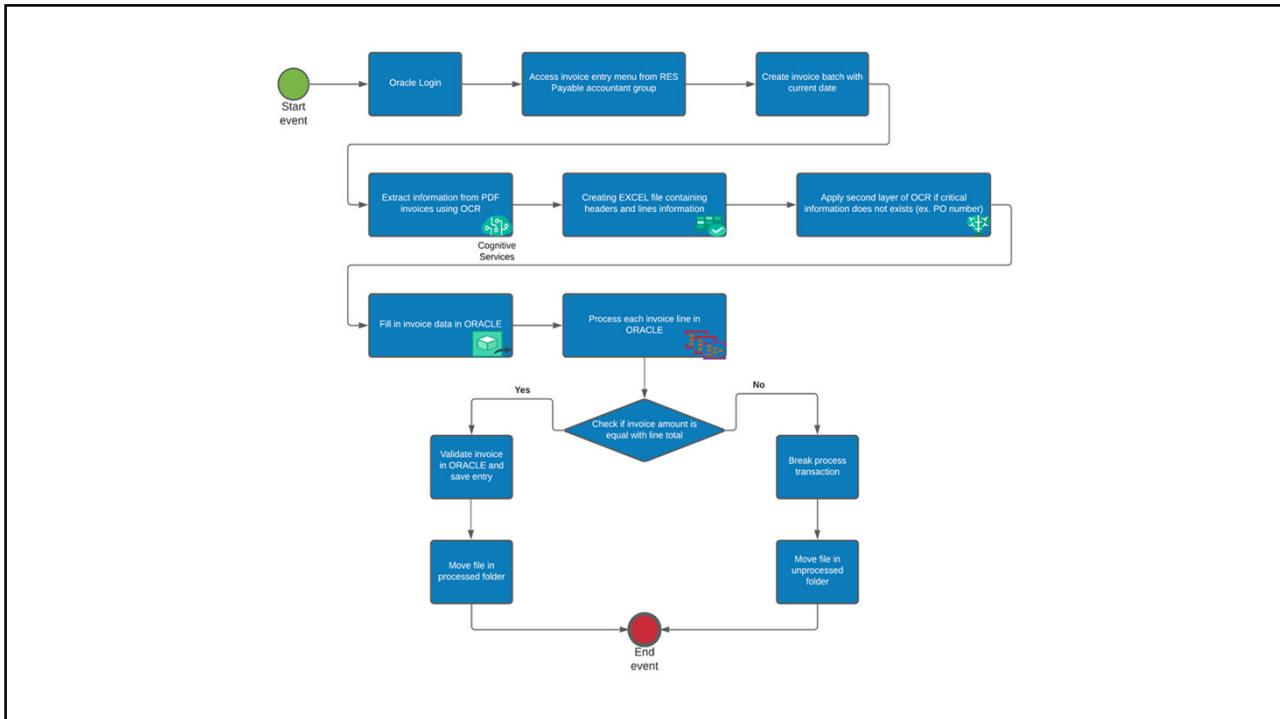
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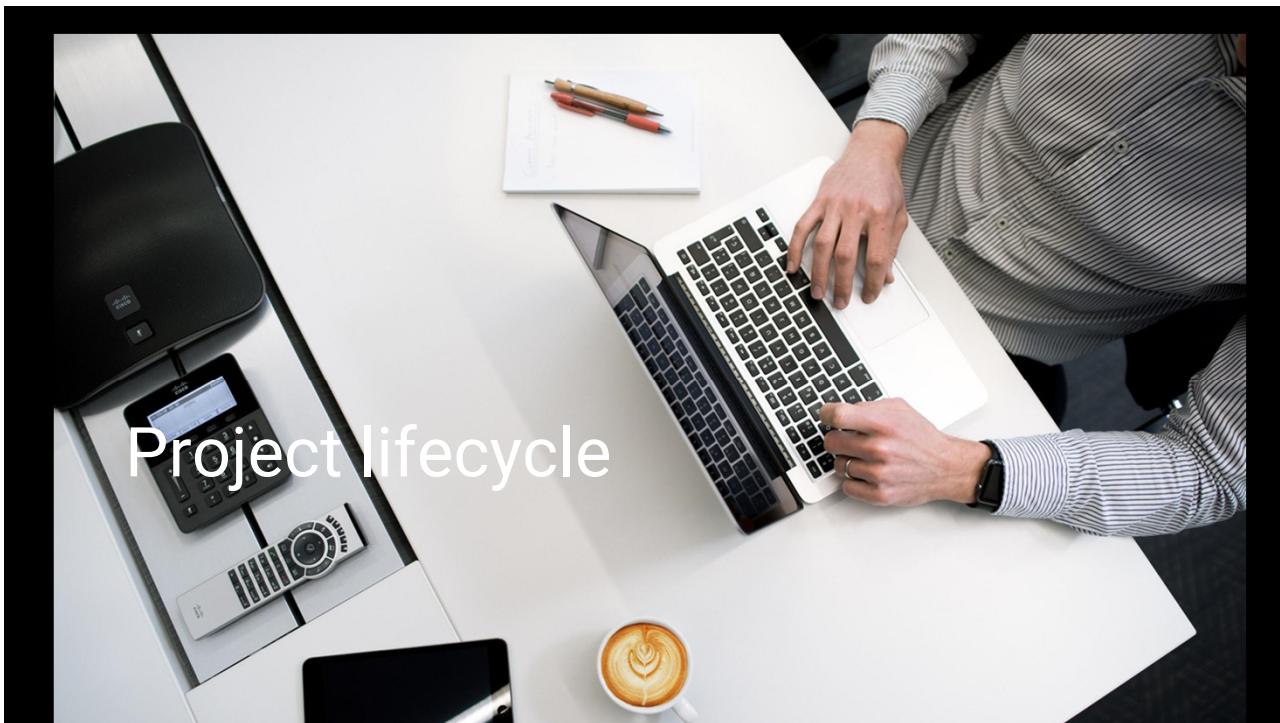
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RPA project lifecycle



Analysis



Implementation



Support

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Story



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Story

Assumptions



- Process was run monthly
- Attended robot
- Microsoft Excel automation
- 3 files as an input
- 1 output file
- Expected behaviour was agreed
- Received example files
- Test the robot
- Cooperative client

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What happened



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Story

What happened



Development was successfully

Deployed the robot

Everything run smoothly

Second month it crash

Data format was not expected

Explain to client

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Options



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Story

What we were missing



How the files were created?

Human (how many) or computer

Data format will be consistent?

15.05.2020 vs 05.15.2020

Empty cells

Video with the process

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Story

Takeaway



Record the process

Establish the scope

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Analysis



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Analysis



Requirements

Inventory of the processes

Measure the cost

Selecting the most impact one

Estimations

Documenting and data analysis

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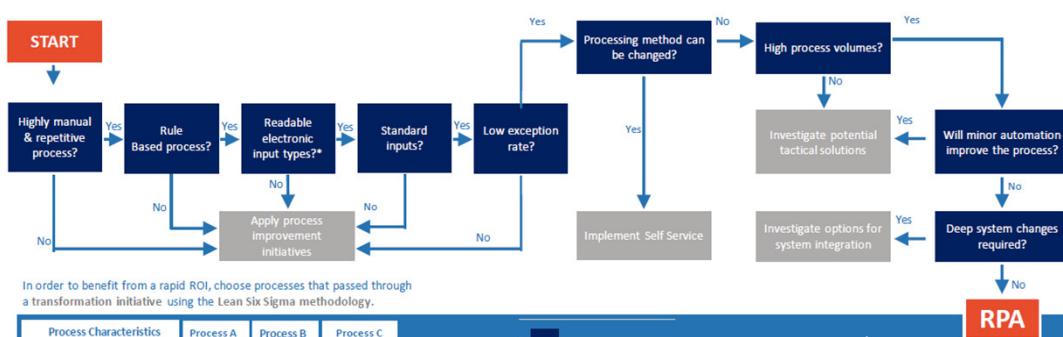
Requirements

Suitable for robot

- Is mature enough?
- Repeat over time?
- Human dependency?
- Rule based decisions?

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What process can be automated



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Inventory of the processes

Sending emails to customers

Inserting invoices in system

Protect documents

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Measure the cost

Sending emails to customers 3 x 2h/day

Inserting invoices in system 1 x 4h/day

Protect documents 2 x 4h/week



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Calculate ROI

Sending emails to customers

$3 \times 2\text{h/day} = 6\text{h/day} = 126\text{h FTE}$

Inserting invoices in system

$1 \times 4\text{h/day} = 84\text{h FTE}$

Protect documents

$2 \times 4\text{h/week} = 32\text{h FTE}$



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Estimations

Sending emails to customers

126h FTE - 10 days effort

Cover 80% cases

100h FTE - 2 days

Inserting invoices in system

84h FTE - 15 days effort

Protect documents

32h FTE - 10 days effort



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Document and analyse data

Create specification documents

- screenshots
- explain actions

Create video

- record the manual process
- use microphone
- avoid keyboard shortcuts
- use mouse



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Implementation



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Implementation



Architecture

Development

Testing

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Architecture

- System interaction
- Security
- Human interaction
- Number of robots
- External infrastructure



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Development

Implement

Components

Dry-run



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Testing

Unit test

Component test

Robot test



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Support



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Support



Testing
Go Live
Development
Training

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Testing



Develop separately

Separate environments

Identify not expected behaviour

Development, Testing, Production

Logging



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Go Live



Ensure integrations

End-to-end testing

Investigations support

Additional setup

Monitoring

Training



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RPA journey



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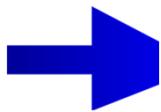
Phase 1: Prototype



Email enters in inbox



Robot finds matching emails (subject, content)



Redirects to level 2 customer support



Robot is used by 4 employees

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Phase 2: Enhancing



Email enters in
inbox



Find mails with
attachment



Read attached
Excel



Notify sender

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Phase 3: Final scope



Email enters in
inbox



Find mails with
attachment



Read attached
Excel



Fill in for in
external app

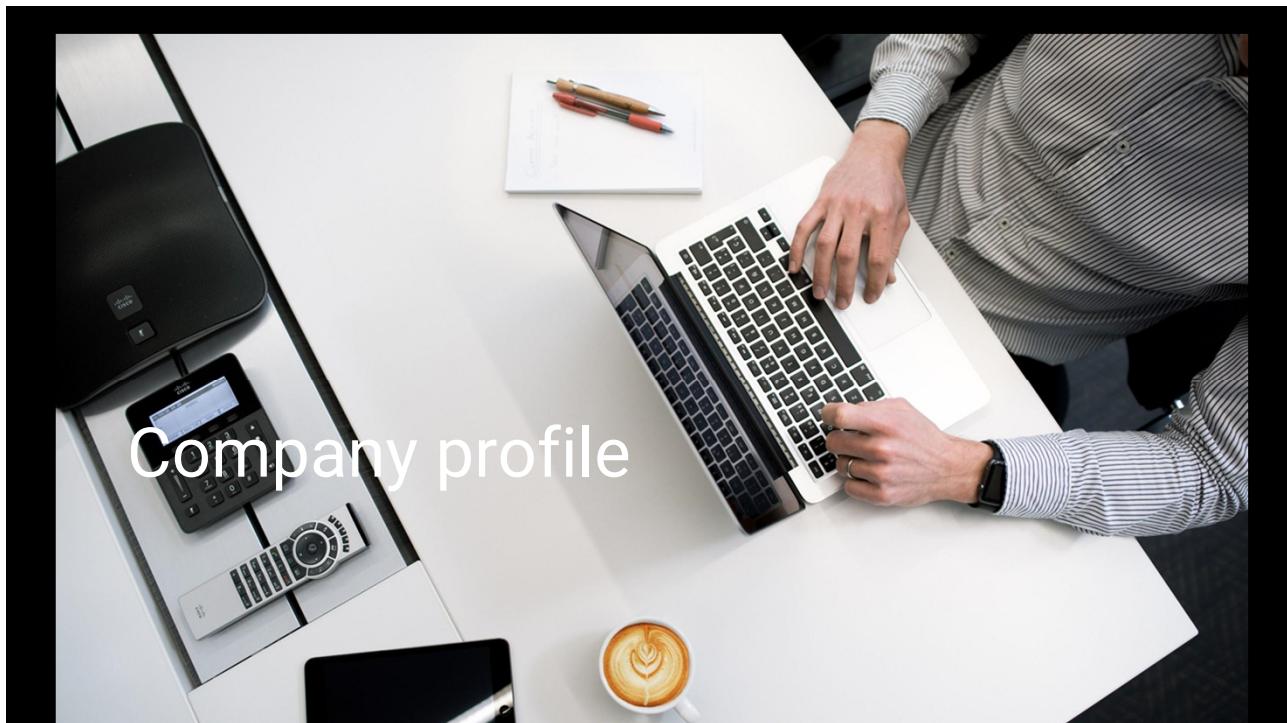
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Who does it already

interested and willing to streamline processes or parts of processes that occupy a large part of their employees' time

interested in business transformation by using digital capabilities

companies that work with multiple data sources and their activity involves aggregating, calculating and generating reports necessary for another part of the business in making important and quick decisions



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Who does it already

companies that take business seriously and need to build new ways to meet the diverse requirements of customers in the most accurate and optimal way in terms of response times

companies eager to adapt and which have set a series of clear objectives that in the current context of new challenges coming from health and business crises

companies eager to adapt and which have set a series of clear objectives that in the current context of new challenges coming from health and business crises



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Who does it already

companies that still want to use the existing systems used in running the business for two main reasons:

the money invested in purchasing and customizing the respective software solutions

that of well-implemented and stable working procedures for which they consumed energy and a lot of effort in their initial elaboration

companies that take business seriously and need to build new ways to meet the diverse requirements of customers in the most accurate and optimal way in terms of response times



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How RPA help them



Have low price



Avoid mistakes



New business



Focus on growth

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Why do it?

Competition is strong

New products migrate online (SmartBill)

Have multiple systems

Deal with many papers

Decrease clients response time

Avoid mistakes



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How much it costs



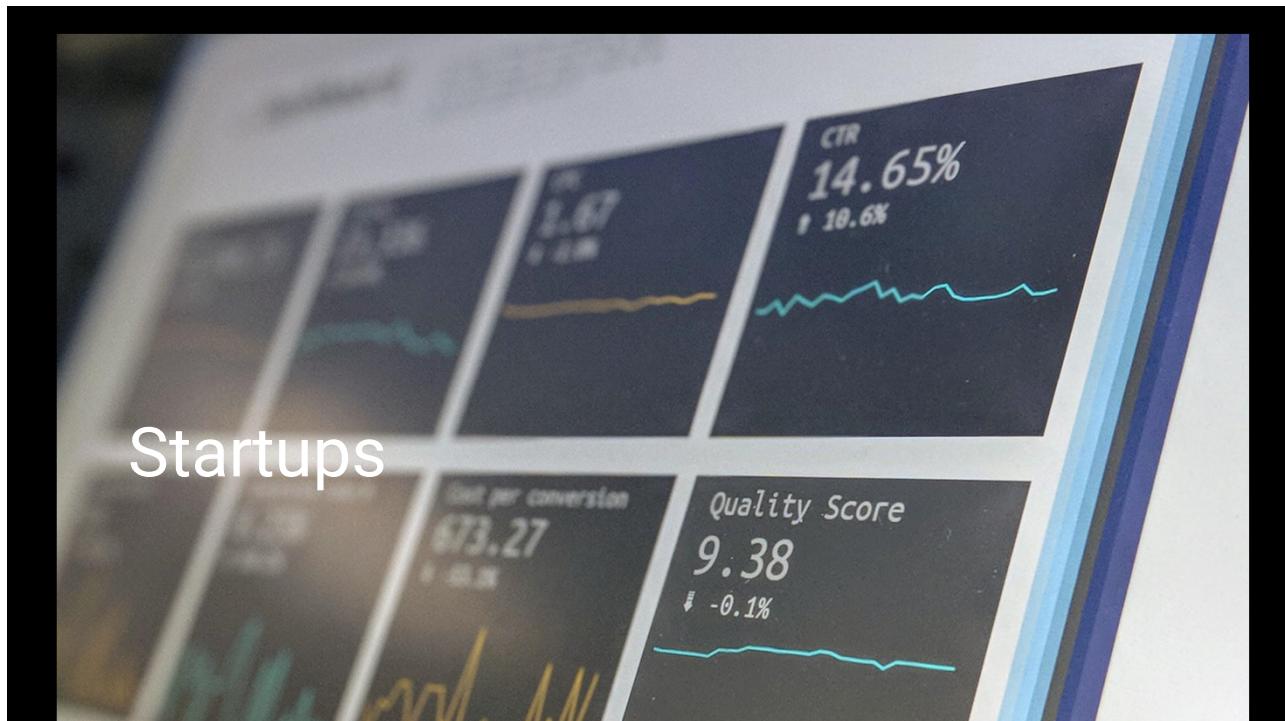
Robotic Process Automation

Robot license/year



Implementator

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Startups market

9/10 startups fail:

- No market need: 42 percent;
- Ran out of cash: 29 percent;
- Not the right team: 23 percent;
- Got outcompeted: 19 percent;
- Pricing / Cost issues: 18 percent;
- User un-friendly product: 17 percent;
- Product without a business model: 17 percent;
- Poor marketing: 14 percent;

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Startups financials

The most popular small business financing methods in 2018 were:

- Personal funds 77 percent;
- Bank loan 34 percent
- VC - 20 percent

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Why we would care?



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Corporation advantages

- Existing network/clients
- Portfolio from recognized clients
- Branding
- Money
- Employee
- Professional people

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Startups advantages



None of these



Scope/curiosity

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How innovation happens?



Curiosity



People



Strategy



Research

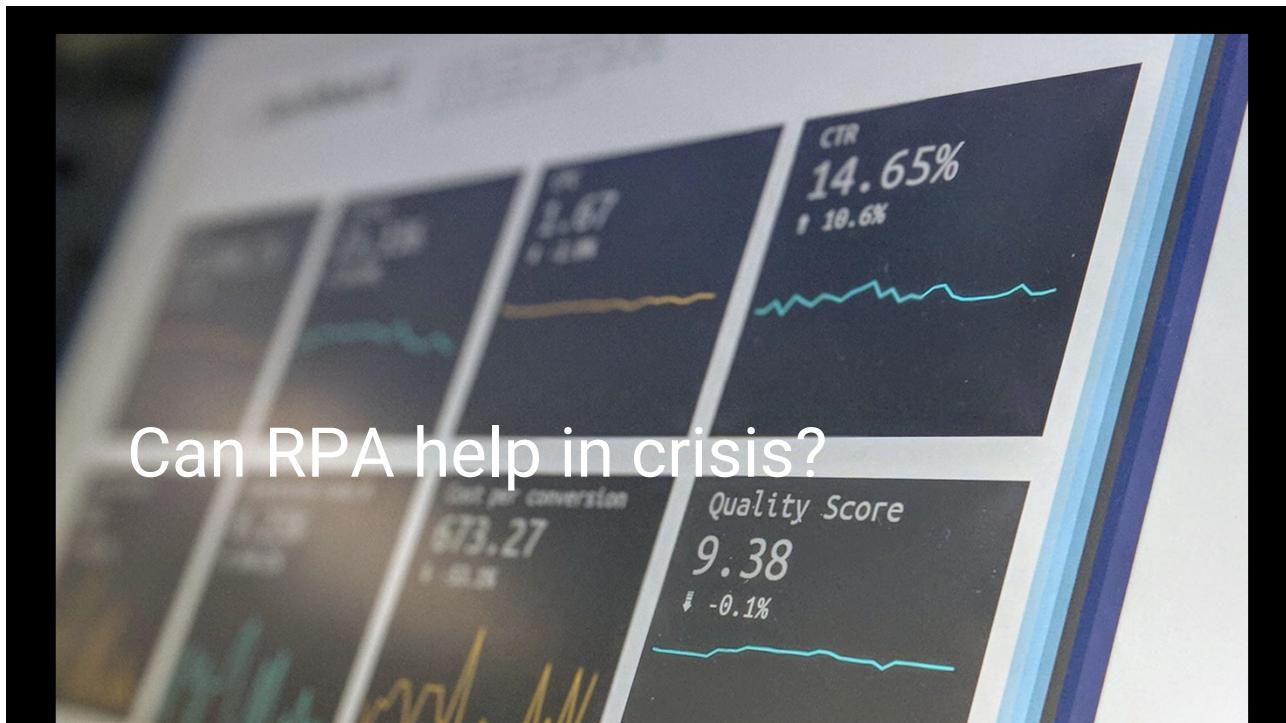
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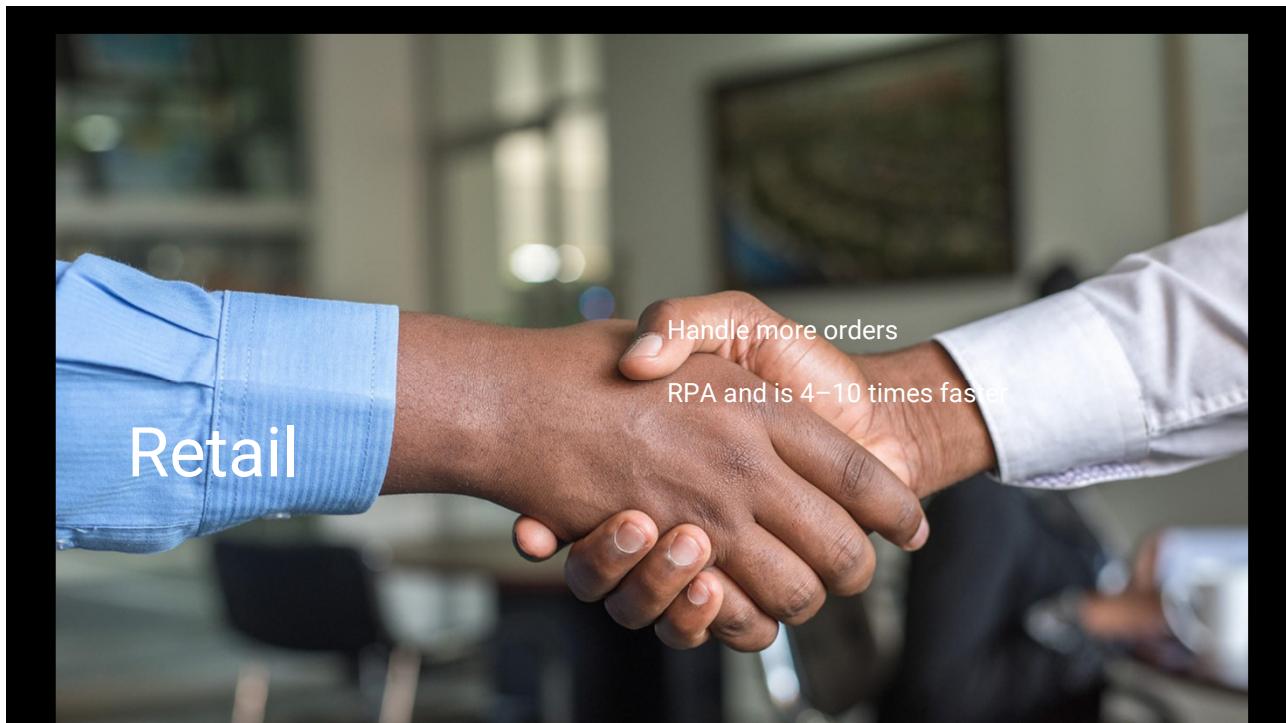
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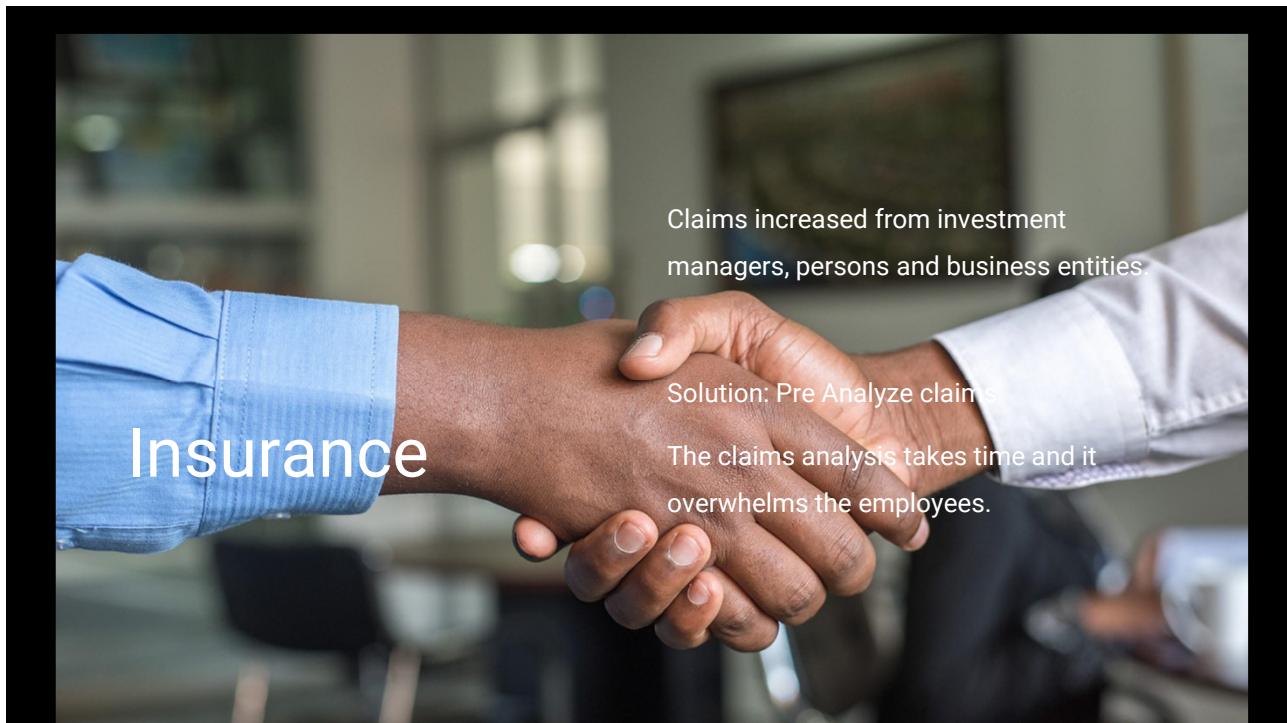
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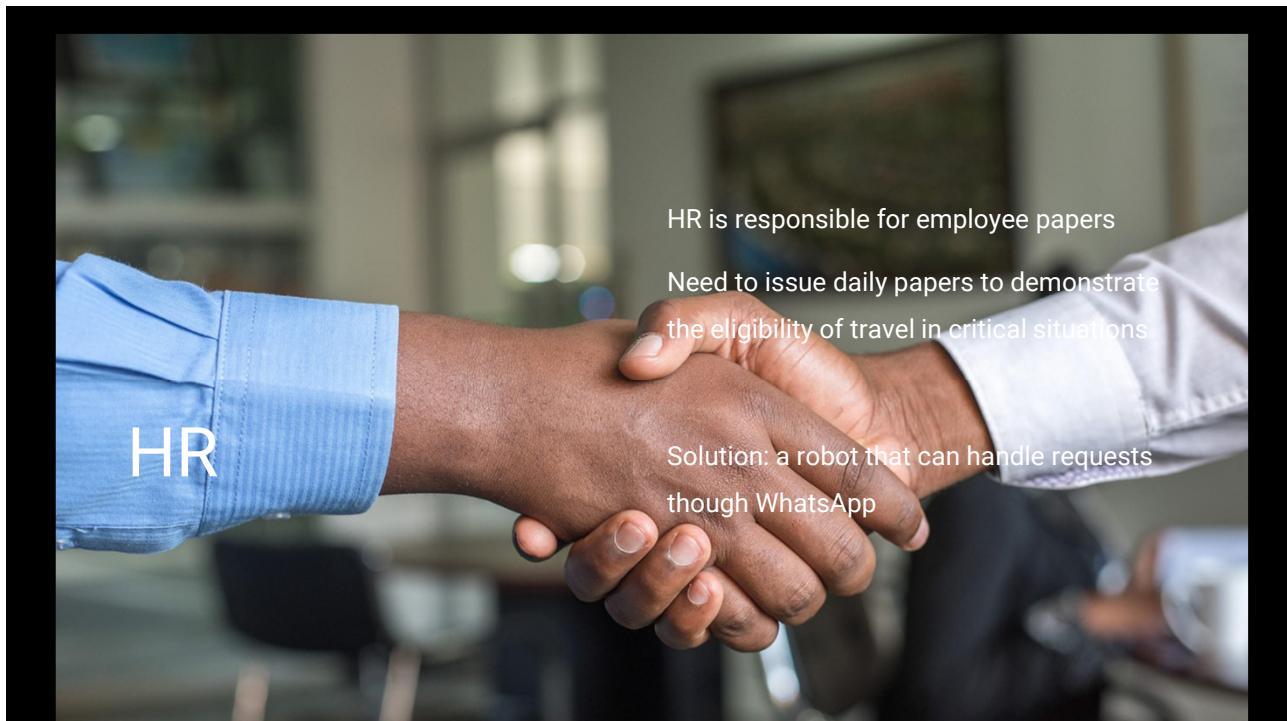
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Robot reliability



Robot has not
medical leave



Work 24/7



Are not
complaining



Affordable

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COVID-post effect



60% companies
increased tech
adoption



All industries

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Why machine learning?



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What is machine learning?



Gathering data



Identifying patterns



Take decisions



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Why machine learning?



Can learn



Big data input



Adapt



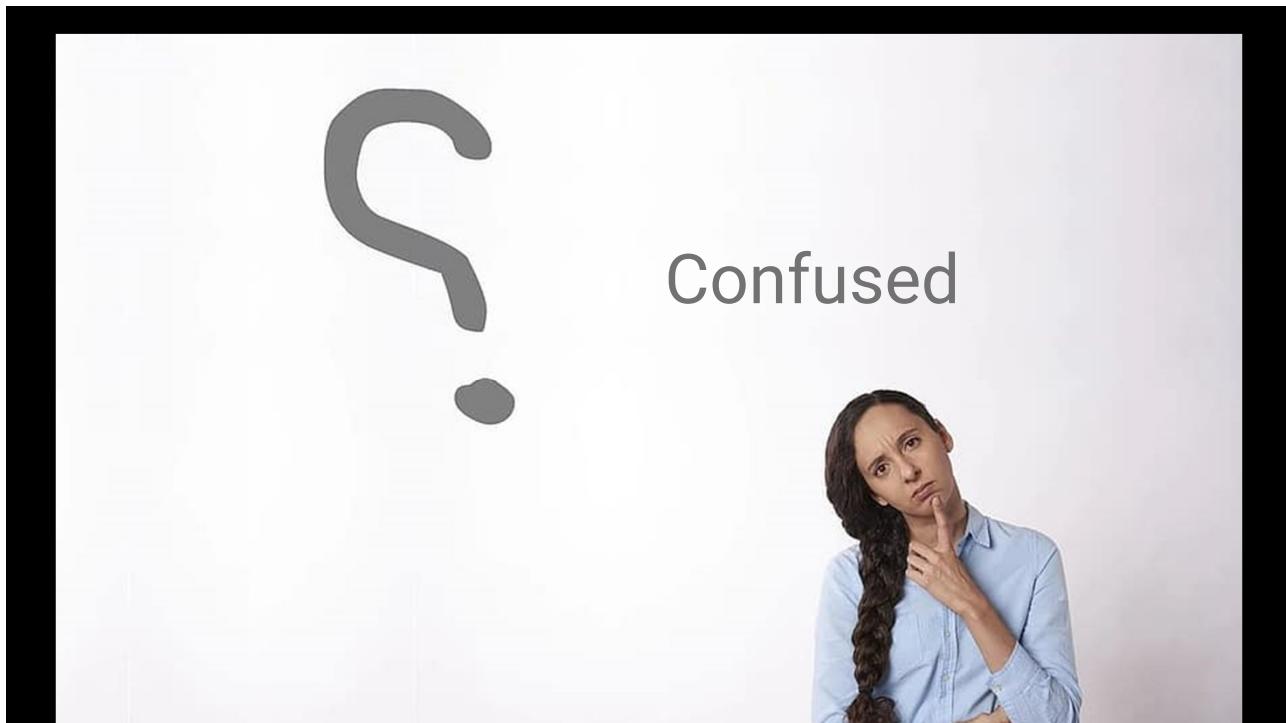
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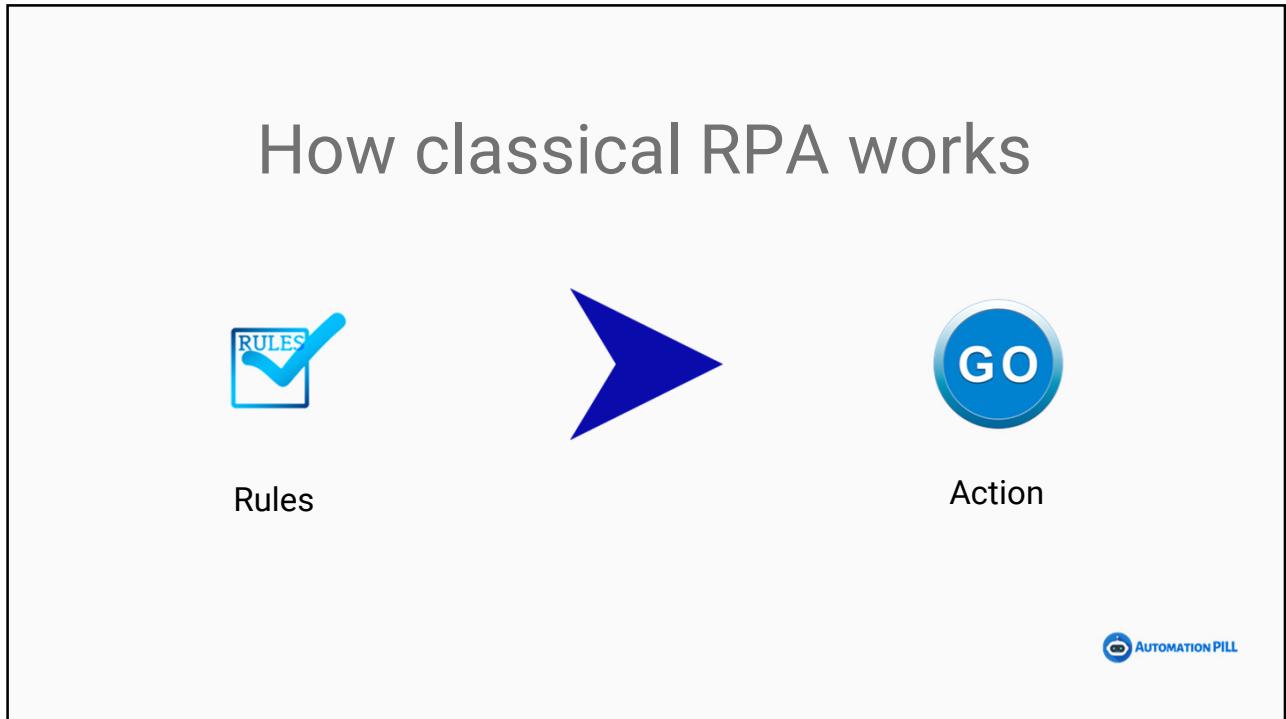
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How Machine Learning works



Behaviour



Decisions



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How can both exists?



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Understand reviews from website



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Handle unsatisfied customers



Read reviews



Filter bad reviews



Create client ticket



Measure improvement



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Filter spam mail messages



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Filter spam mail messages



Read mails



Decide spam



Block sender



Measure
improvement



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Price estimation



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Real estate price estimation robot



Learn how price was
estimated



Receive new property
request



Estimate based on
previous criterias



Adjust (inflation, etc)



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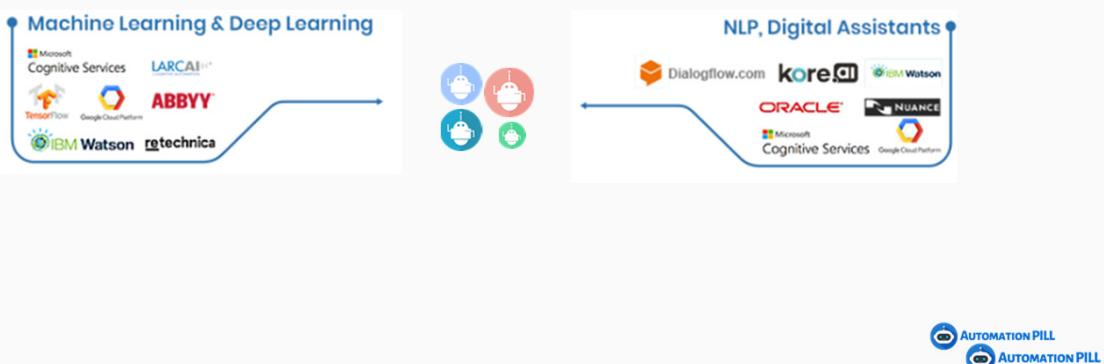
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Integrate with existing services



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Types of machine learning

- Voice assistants
- Image classifier
- Dynamic pricing (Uber, Bolt)
- Product recommendations
- Personalized marketing
- Fraud detection



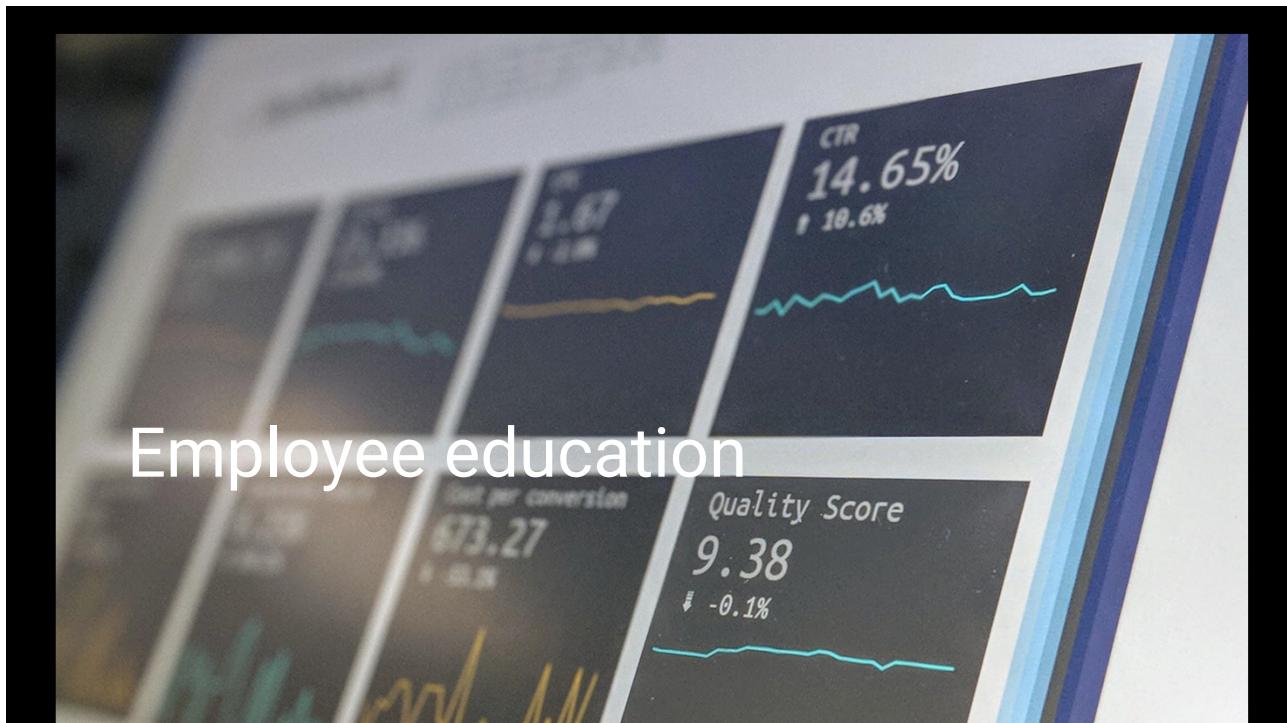
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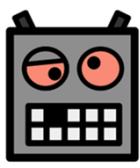


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What people think



We are afraid of
them



Afraid to lose jobs



Too exotic

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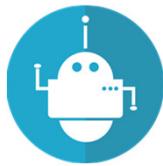
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What actually is



Robots are here to help



They work 24/7



Robots are not complaining



More time for clients

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How you use it



A person starts a robot



Robot perform task



Employee focus on other tasks



More time for other things

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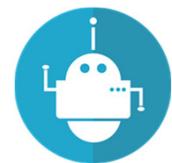
Effects

Even Faster, Better, Cheaper,
and Much, Much More Effectively

ROLLOUT STRATEGY

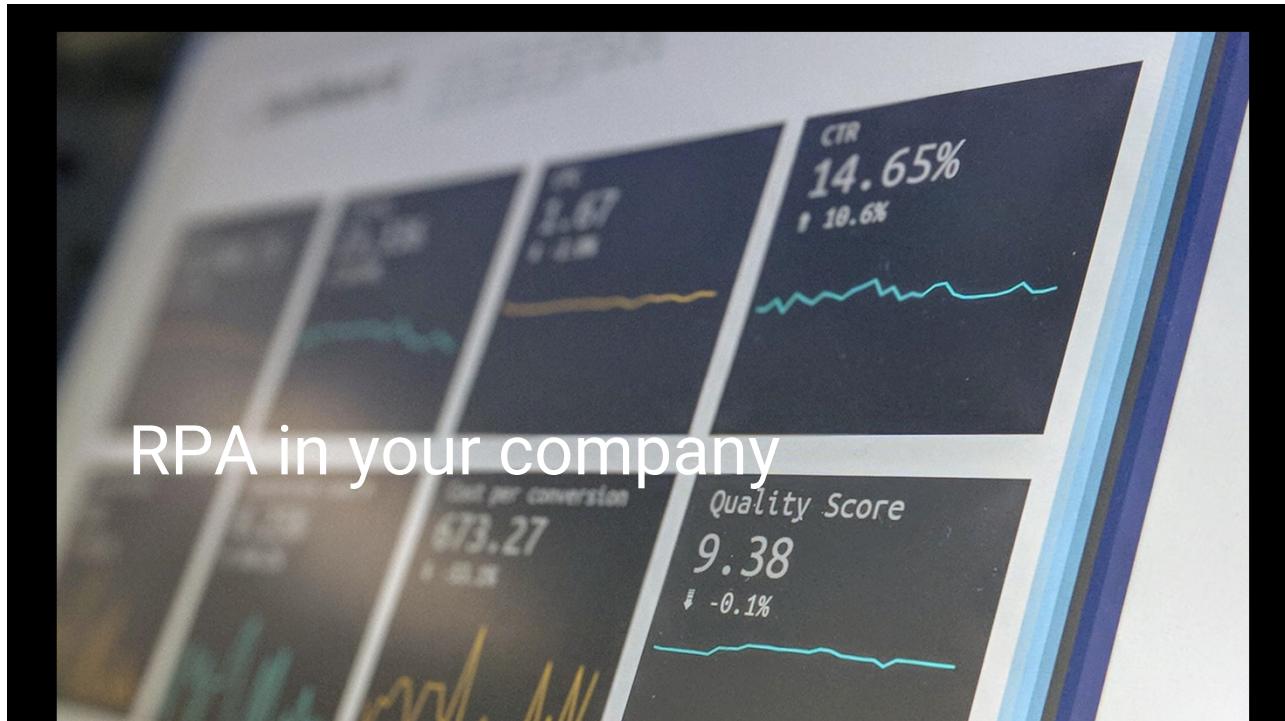


No boring work



Increase the
employee
communication

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Implement RPA in a company



Identify a decision
maker in your
company



RPA evangelist



Early business
advocates



Hire professionals

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When do you need



50+ employees



High business
leavers



High manual work



Affordable

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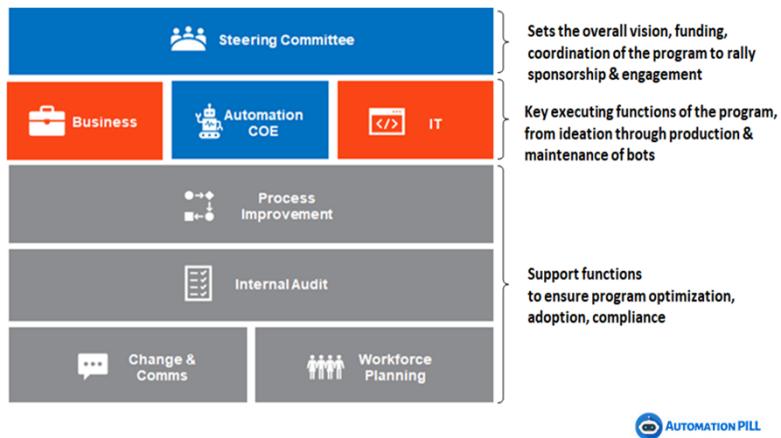


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CoE strategy

build effective internal
CoE's to plan the process
of deploying RPA
technology



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Disadvantages

- Low implementation engagement
- Implementation bottlenecks
- Low process implementation
- Testing not done correctly
- Deadlines not respected



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Story



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Measure ROI



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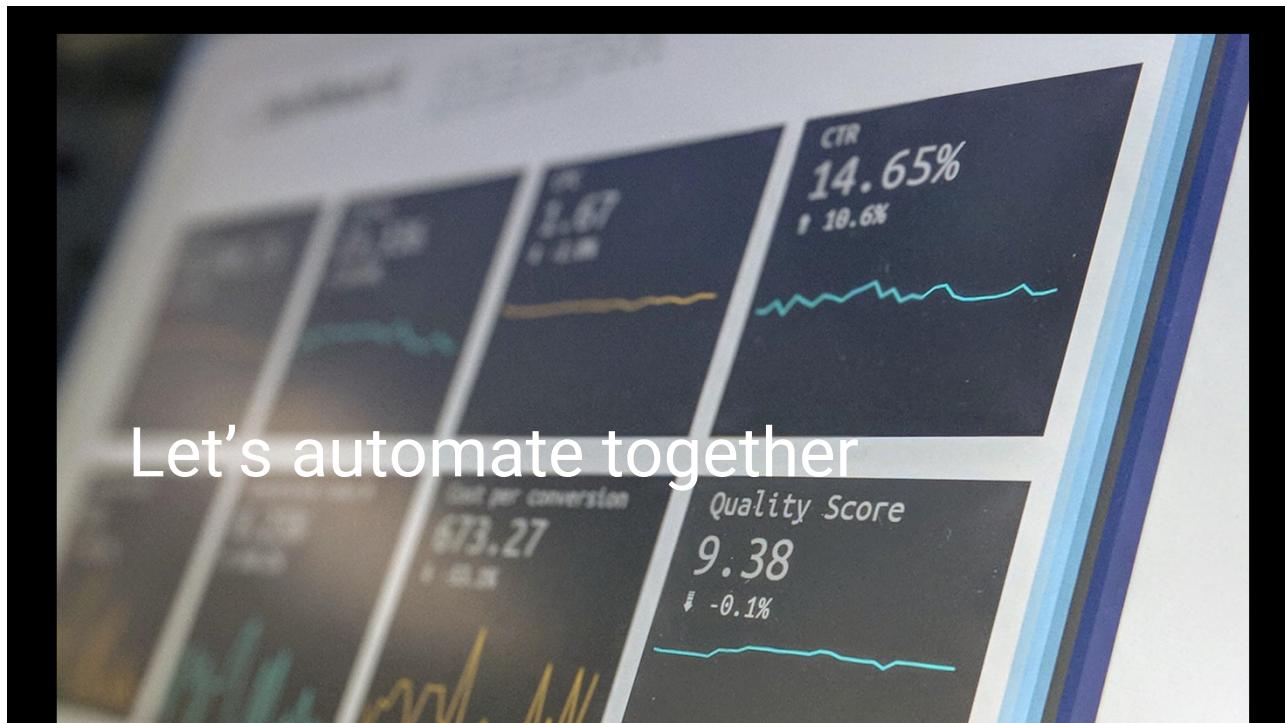
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What is the most time consuming process



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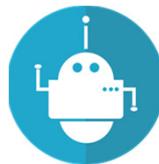


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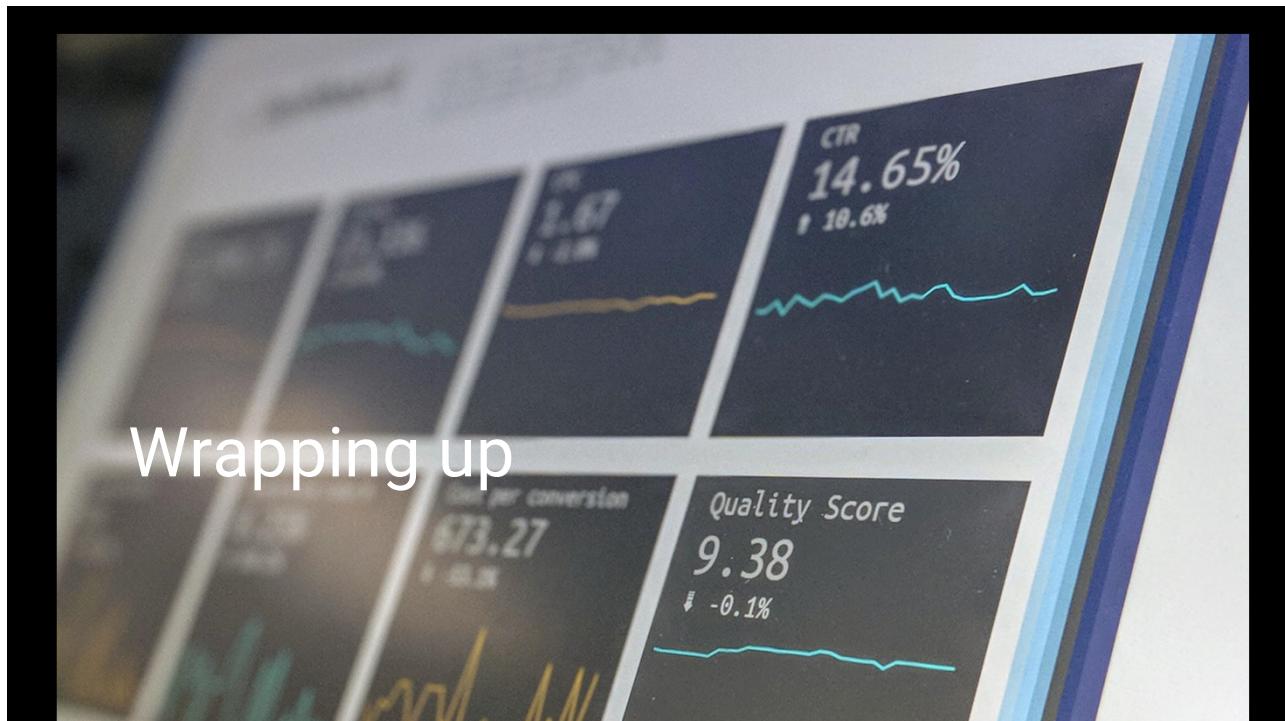


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Demo



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What will you automate?



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RPA can help to



Gain time



Avoid mistakes



Focus on growth



Be more competitive

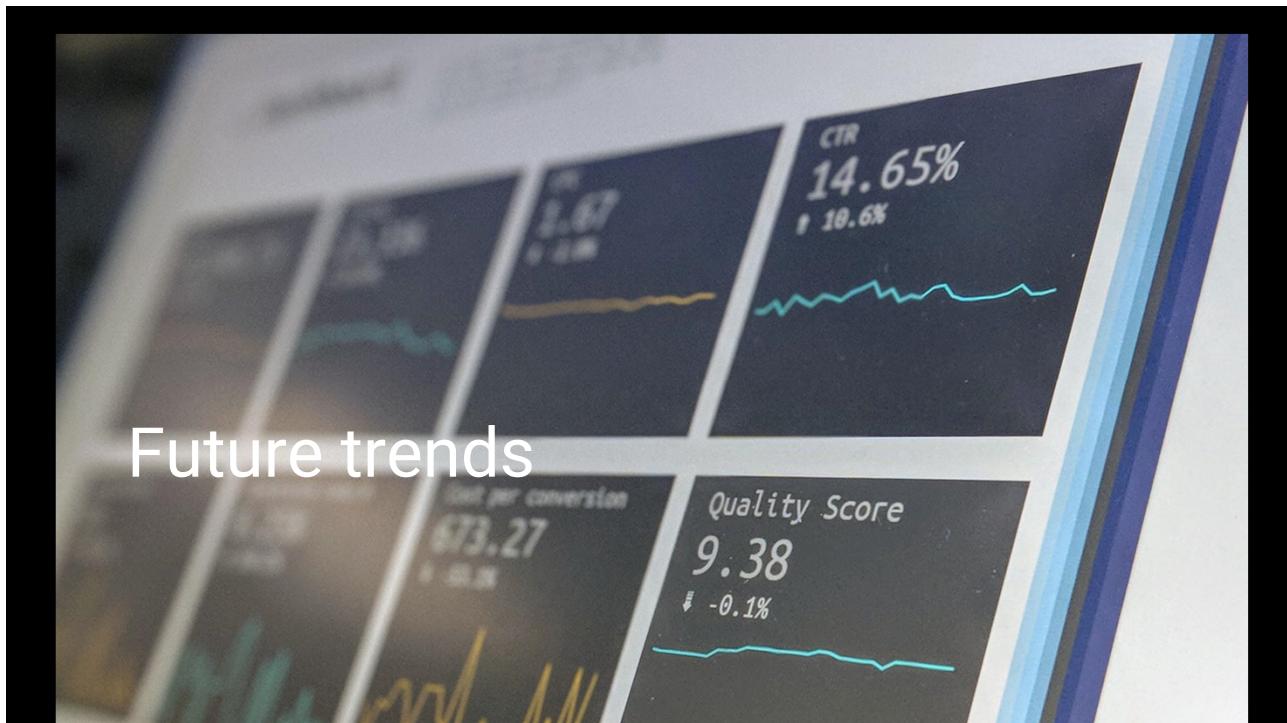
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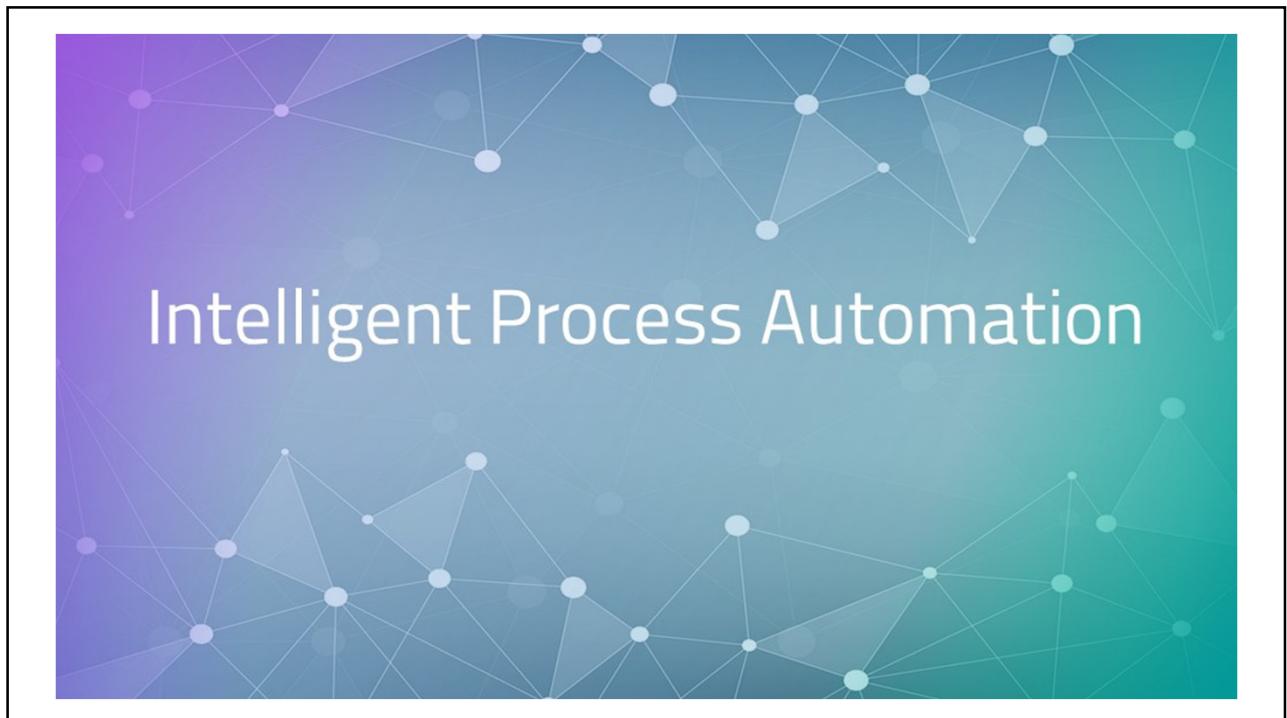
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- the addition of “intelligent” comes from the application of advanced analytics to support the specification of complex decision-making logic
- IPA is an emerging set of new technologies that combines fundamental process redesign with robotic process automation and machine learning
- IPA mimics activities carried out by humans and, over time, learns to do them even better
- rule-based automation are augmented with decision-making

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Areas and tasks where IPA can have significant impact:

Simple, manual work

- Automation of ***data aggregation***
- Automation of ***data rekeying***
- Automation of “***not-in-good-order***” ***checks*** for new applications or benefits

Back-end processes

- Full automation of ***policy maintenance*** and ***client data changes***
- Automation of data feed into analytics-enhanced rules to facilitate ***auto-decisioning*** (e.g., for jet underwriting, renewals, payment approvals, new business and amendments, claim subrogation, suspicious activity flagging)
- Automation of ***other small transactions*** with lower but incremental impact

Front-end processes

Examples of ***process subparts*** to be automated include:

- ***Correspondence*** creation and sending
- ***Multiple system information updates***
- ***Benefits analysis***
- ***Application checks*** to authorize commissions

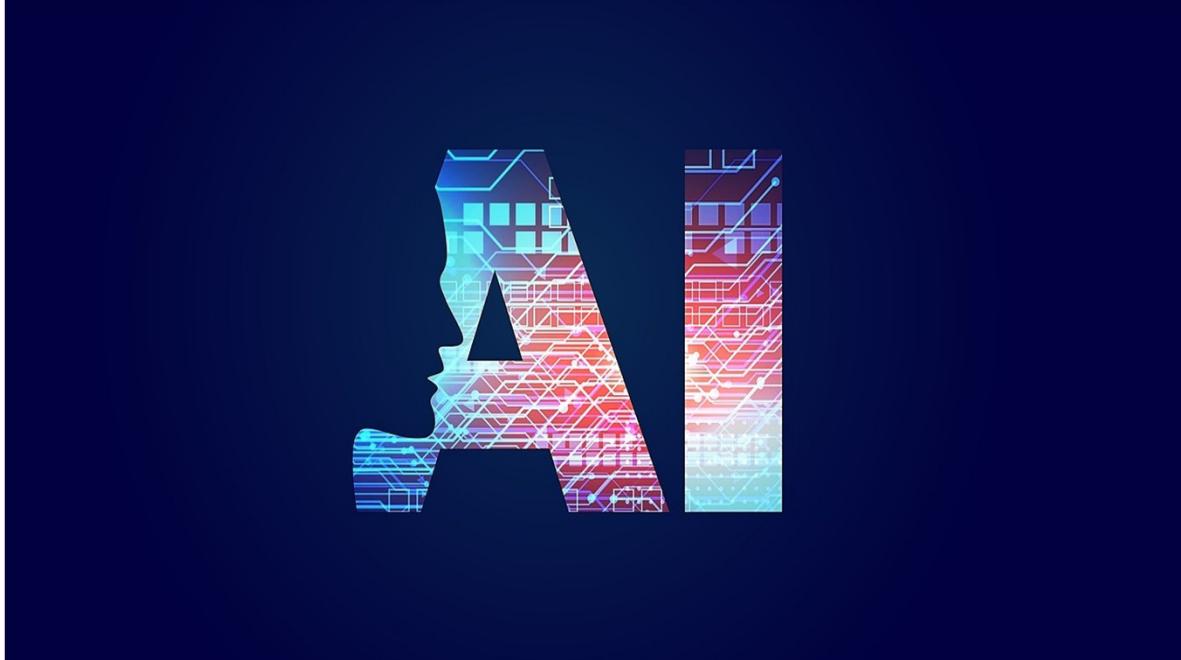
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- refers to computer systems built to mimic human intelligence and perform tasks such as recognition of images, speech or patterns, and decision making
- for example, the RPA agent should continue to work properly when the web interface of some application changes, thus making it very different from traditional “screen scraping” behavior
- in addition to consumer use, AI is used to schedule trains, assess business risk, predict maintenance, and improve energy efficiency, among many other money-saving tasks
- five out of six people use AI services in one form or another every day, including navigation apps, streaming services,

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- analysis of large amounts of data is already actively used by companies (Facebook, Youtube etc)
- together with growing amount of information and the development of AI, not only Big Data will develop, but also the field of application of this technology
 - Big Data will be one of the tools of Internet marketing
 - allows you to quickly process huge amounts of data based on consumer behavior, ensuring pattern recognition and direct targeting

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Thank you

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