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## *Intelligent Automation – A Technical Research Around OpenAI, ChatGPT, Gen AI, and Vast Areas*

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### **Abstract**

As a result of developments in Artificial Intelligence (AI) and its related domains, automation of knowledge and service labor is an important contemporary technical development. To characterize this phenomenon, we use the phrase Intelligent Automation. This advancement offers organizations a new strategic chance to boost their company worth. However, because academic research contributions that look at these processes are dispersed throughout a wide array of scholarly fields, there isn't much agreement on the most important findings and their ramifications. The intellectual condition and advancement of Intelligent Automation technologies in the knowledge and service sectors are thoroughly characterized in the first interdisciplinary literature review that we have conducted. We offer three important contributions in light of this review. First, we define Intelligent Automation and the technology that support it. Second, we present an intelligent automation model based on business value for knowledge and service labor and list twelve research gaps that prevent a thorough understanding of the process of realizing business value. We then offer a research agenda to fill these deficiencies. In the vast subject of artificial intelligence, it is one of the most current trends. Robotic process automation (RPA), low-code platforms, machine learning, and other cutting-edge methodologies and technologies are all part of IA. Important ideas in the book: Intelligent Automation (IA) – what is it? Why has IA's use been growing so quickly? What advantages does it provide to society, businesses, employees, and customers? How have top firms been able to fully utilize IA at scale and produce enormous efficiency

improvements between 20 and 60%? What this book will teach you: Learn the insights from more than 100 successful (and unsuccessful) IA transformations. Take use of the greatest collection of 500+ IAs available to the public. Academics and industrial practitioners are now pursuing robust and adaptive decision making (DM) in real-life engineering applications and automated business workflows and processes to accommodate context awareness, adaptation to environment, and customization due to recent advancements in robotic process automation (RPA) and artificial intelligence (AI). With regard to the consideration of decision options, the developing research via RPA, AI, and soft computing offers advanced decision analysis methods, data-driven DM, and scenario analysis, which has advantages in many engineering applications. Achieving previously unheard-of levels of operational effectiveness, decision quality, and system dependability is possible with the new intelligent automation (IA), which combines RPA, AI, and soft computing. While AI has the cognitive abilities to simulate human behavior and process unstructured data via machine learning, natural language processing, and image processing, RPA enables an intelligent agent to eliminate operational errors and mimic manual routine decisions, including rule-based, well-structured, and repetitive decisions involving enormous amounts of data. When context-aware data, ambiguity, and consumer preferences are present in complex decision settings, new opportunities for automated DM procedures, problem detection, knowledge elicitation, and solutions arise.

**Keywords:** *Intelligent automation, Robotics process automation, OpenAI, ChatGPT, Artificial Intelligence*

## Introduction

### How to automate OpenAI

Artificial intelligence—or research company OpenAI to be specific—is having a serious moment in the spotlight. With AI-powered tools like ChatGPT and DALL-E under its belt, OpenAI can create content from scratch, generate images, and even hold lifelike conversations with humans. And, as the world begins to explore the potential of incorporating artificial intelligence into various business practices, the opportunities for growth and innovation are becoming clear. With OpenAI and Zapier, you can use automated workflows—called Zaps—to deliver real value across marketing, customer support, and even product management. Here are the areas you can pull in the power of AI and streamline your efficiency:

### For generating images

If you need help coming up with inspiration for certain design projects, like logos or website layouts, OpenAI's DALL-E can help you generate solid frames of reference. To kickstart any design project, pull in the power of OpenAI and prompt it to create images based on your design briefs. Part of the NFT rage? You can also use OpenAI's integration to produce images for NFTs with metadata and upload them to platforms like Idexo.

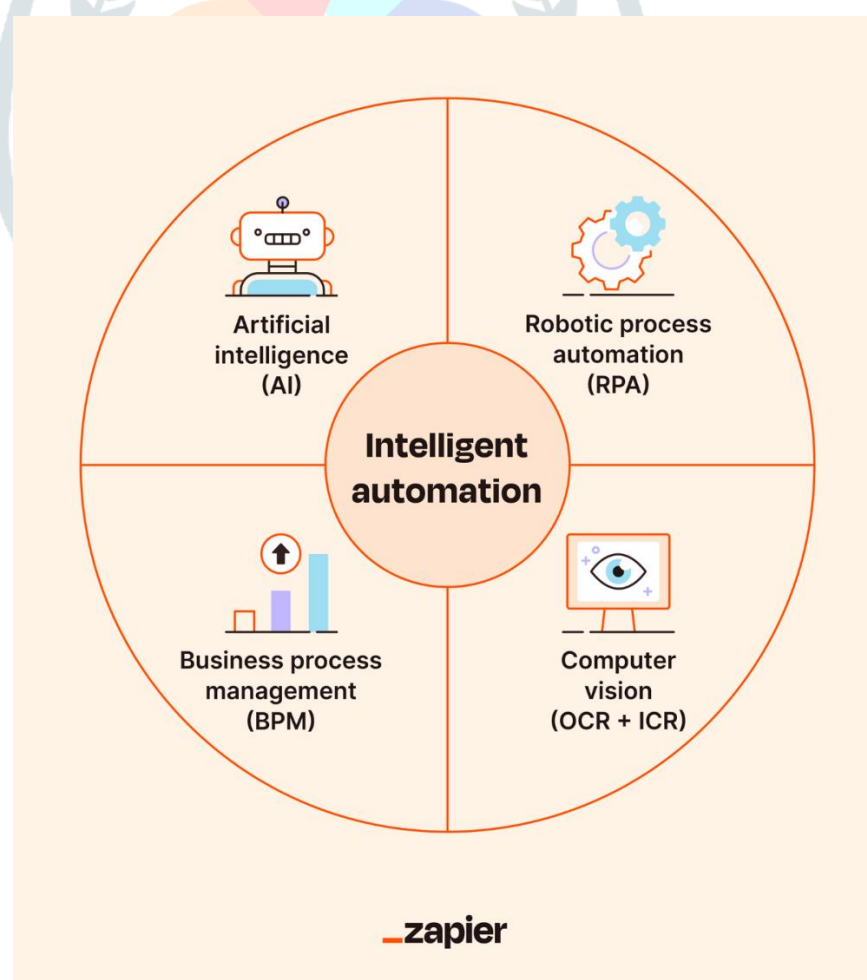
## For writing and sending team notifications

Whether you always provide your team with next steps after a meeting or want to brainstorm content ideas with your coworkers, most of this communication probably happens in Slack (or your team chat app of choice). But what about getting AI to do the heavy lifting—or in this case, writing—for you? You can pull GPT-3 into Slack to generate responses to prompts in a certain channel, come up with content ideas you can then riff off as a team, and even summarize your meeting notes. From creating a dedicated GPT-3 reply bot to posting daily reminders, these Zaps can pen and send Slack notifications, keeping your coworkers in the loop with less effort and ultimately streamlining team communication.

## For streamlining customer communication

Ever have trouble writing customer emails that strike the perfect balance between professional and friendly?

Or maybe you're struggling to scale communication to a large number of prospects? Whatever the case, reaching out at the right time—with the right message—is key to building solid customer relationships and increasing profitability. Fortunately, you can use these Zaps that prompt GPT-3 to write quality messages at scale based on your customers' specific needs or a prospect's position in the sales funnel. These Zaps then trigger the appropriate outreach to your customers, be that via email or SMS, allowing you to send more



prompt responses.

## **For content generation and marketing**

You can also use AI and automation to streamline business-critical tasks from marketing (like lead scoring) to content (like generating product descriptions). For example, you can use GPT-3 to analyze and prioritize prospects based on their level of interest—and then send that data to your sales team's spreadsheet. Or you can use it to generate topic ideas and subtopics for a blog post—then add those to your task management app. You can also use it to summarize articles you share with your email marketing list. Whatever your marketing task, these Zaps will enrich your lead data and ease the pressure of creating quality content.

## **For to-do lists and project management**

Whatever your role, to-do lists are an essential part of everyday work. Yet sometimes, project briefs and task assignments lack clear information to kick things off. Using these Zaps, you can set up tasks inside your task management tool that come from different sources (like emails, chat messages, or notes), and use GPT-3 to enrich the information, add more context, or create specific notes based on criteria you set up. Create summaries for each task? Check. Add reminders when tasks aren't completed? Check. Set your entire team up for greater success, and never worry about manually updating projects' statuses again.

## **For product and customer support tickets**

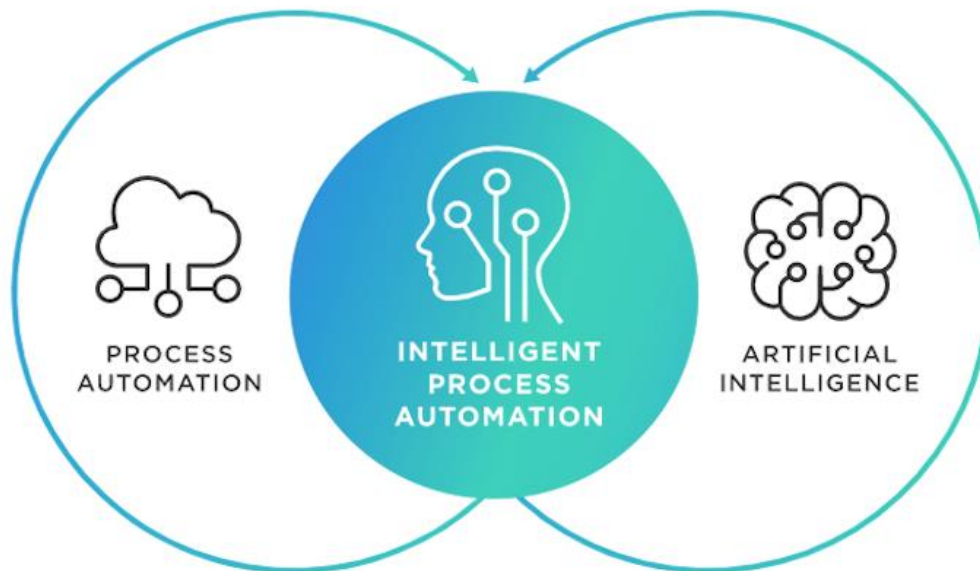
Whether you collect feature requests from your customers and save them in Jira or use a tool like Zendesk to manage customer support tickets, it's normal that these entries probably consist of a sentence or two. To help your product and customer support teams better address these tickets, these Zaps let you add extra context to them in the form of acceptance criteria. GPT-3 will add functional requirements, clear instructions, and any other information you or your team should know.

## **For transcribing and translating audio files**

Need to catch up on a crucial meeting you missed—but don't want to sit through an entire recording? Or perhaps you just want to transcribe a video file (like a product feedback interview) and share it with your team so everyone's on the same page. Fortunately, you can use OpenAI's Whisper to automatically transcribe files up to 25 MB. The best part? These Zaps don't just transcribe files—they can summarize them for you too. Your days of taking notes are over.

## Take your business to the next level with OpenAI

No matter your role or industry, it's increasingly clear that AI is changing the way we work—for the better. Whether you're using GPT-3 to increase how fast you produce content or you're using it to scale customer support queries, this integration can improve the quality, speed, and efficiency of your output. And this is just the start of what you can do with OpenAI and Zapier. Check out our App Directory to see what you can do next.



### OpenAI and UiPath Integration

#### Harnessing the Power of UiPath and OpenAI Integration

In the world of automation, UiPath has established itself as a leader, empowering organizations to streamline their processes and increase efficiency. However, by integrating UiPath with OpenAI, a world of new possibilities emerges.

#### Benefits of UiPath and OpenAI Integration:

**Enhanced Decision-Making:** OpenAI brings advanced natural language processing (NLP) capabilities to the table. By integrating OpenAI with UiPath, organizations can leverage AI-powered decision-making processes, enabling intelligent automation that can understand and interpret unstructured data such as emails, customer feedback, or support tickets.

**Intelligent Process Automation:** Combining the robotic process automation (RPA) capabilities of UiPath with OpenAI's language models enables the automation of complex tasks that involve understanding and generating



natural language. This integration allows organizations to automate processes that previously required human intervention, resulting in increased productivity and reduced errors.

**Improved Customer Experience:** The integration of UiPath and OpenAI enables organizations to develop intelligent chatbots and virtual assistants capable of understanding and responding to user queries naturally. By leveraging OpenAI's language models, organizations can provide personalized and human-like interactions, leading to improved customer satisfaction and engagement.

**Document Processing:** The integration of UiPath with OpenAI offers several benefits for document processing. It enables efficient data extraction, leveraging OpenAI's language models to automate the extraction of relevant information from documents. The integration also enhances document understanding, allowing UiPath to intelligently analyze and categorize documents based on their content. Automated document classification and analysis tasks become possible, saving time and effort. Streamlined workflows and increased accuracy result from automating repetitive tasks and ensuring compliance with regulations. Overall, the integration of UiPath and OpenAI enhances document processing efficiency, accuracy, and compliance.

#### **Ways to Connect UiPath with OpenAI:**

**UiPath and OpenAI APIs with API activities:** The UiPath platform allows users to make REST calls to OpenAI APIs using the UiPath API activity. This approach enables developers to interact with OpenAI services and incorporate AI capabilities into their automation workflows seamlessly. [Link here](#)

**Integration Service with OpenAI:** UiPath provides integration services that offer connectors to OpenAI. By utilizing these connectors, users can directly interact with OpenAI's services without the need for complex API integrations. With simple activities in place, such as sending prompt requests and receiving responses, organizations can leverage OpenAI's capabilities effortlessly. [Link here](#)

**Integration Service with Azure OpenAI:** Another way to connect UiPath with OpenAI is by leveraging the Azure OpenAI connector. By utilizing UiPath's integration service with Azure, users can make calls to their OpenAI instance hosted on Azure. This approach enables seamless communication with OpenAI's language models and facilitates prompt requests and response handling within UiPath workflows, along with the security and compliance of Azure. [Link here](#)

#### **Industry Use Cases:**

**Customer Support Automation:** By integrating UiPath with OpenAI, organizations can automate customer support processes. AI-powered chatbots can understand customer queries, provide relevant information, and even generate responses to frequently asked questions, reducing the load on human agents and improving response times.

**Document Processing and Analysis:** The integration of UiPath and OpenAI enables intelligent document processing. By utilizing OpenAI's language models, organizations can extract meaningful insights from documents, perform sentiment analysis, and automate data extraction tasks, enhancing document management workflows.

**Data Analysis:** The integration of UiPath with OpenAI can revolutionize data analysis by deriving insights from unstructured data sources. AI-powered algorithms can parse financial reports, free-form text, and generate predictions, enabling organizations to make informed decisions efficiently.

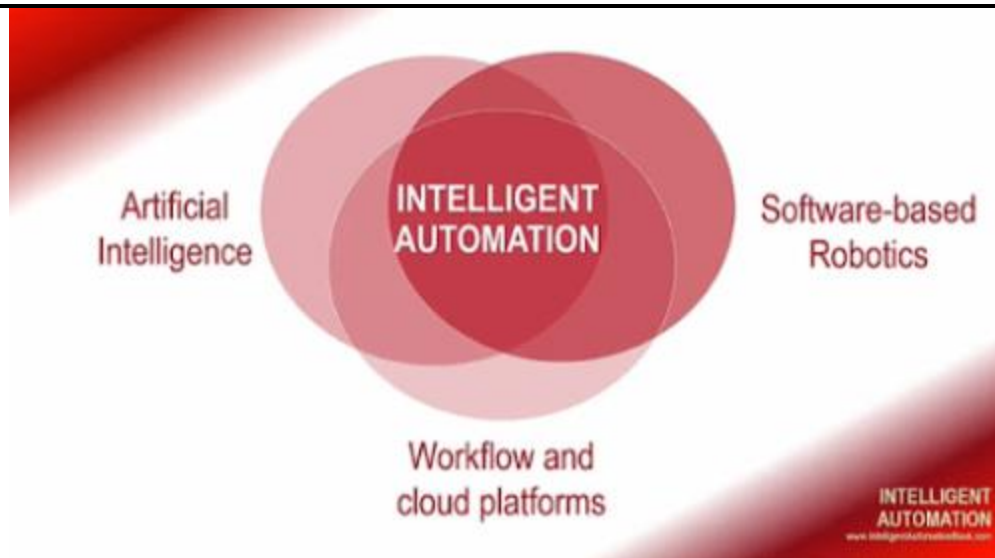
## Intelligent Automation UiPath

Technology has radically transformed the way we do business. From reducing waste to refining analytics, each new stride has had profound and positive consequences for organizations. As the pace of digital innovation accelerates, new emerging technologies promise even greater benefits—building the need for intelligent automation in UiPath. One of these relatively new trends is called intelligent automation (IA). In this article, we explore what IA is, its key benefits, and some real-world business applications. If IA sounds like the right move for your organization, check out ProTech's comprehensive intelligent automation UiPath courses. Whether you're implementing IA from scratch or looking to take your automation to the next level, we've got something for you. Intelligent automation (also known as "intelligent process automation", "hyper-automation", or "cognitive automation") marks a major turning point in the way business is conducted. It represents an intersection between several cutting-edge branches of software programming, including:

- Robotic Process Automation (RPA)
- Business Process Management (BPM)
- Artificial Intelligence (AI) and Machine Learning (ML)
- Natural Language Processing (NLP)
- Computer Vision

### Cloud platforms and workflows

Despite this sophisticated range of technologies, the goal of IA is actually quite simple: Re-humanize work by automating end-to-end computer processes. But what exactly does this mean for workers? Contrary to the belief that machines will usurp the workforce, IA is actually designed to empower employees. With proper implementation, IA enables workers to devote more time and energy into meaningful work instead of toiling away at tedious tasks. This is true across a range of industries, including banking, financial services, healthcare, insurance, and more.



### What's the Difference Between IA and RPA?

On the surface, intelligent automation just sounds like a fancy term for robotic process automation. But there are key differences. In fact, when used in combination, RPA and IA give organizations a tremendous strategic and tactical advantage over the competition.

**Think of robotic process automation as the metaphorical hands of your operation.** RPA is a technology that excels at performing structured, repetitive, rule-based tasks. In other words, the kind of time-consuming and error-prone work that employees dread. IA, on the other hand, can handle unstructured data and “learn” through technologies like ML, NLP, and computer vision. This allows IA to adapt over time, incrementally optimizing end-to-end processes and workflows. To stretch our analogy further, **IA is the brains behind your operation.** Whether your organization operates in financial services, healthcare, insurance, public sector, or another industry, IA and RPA make a powerful duo.

## 2 Major Benefits of Intelligent Automation

In this section, we look at two proven ways that IA can optimize business performance and discuss the downstream benefits to your organization.

### 1. Boost Employee Engagement, Productivity, and Revenue

Recent Gallup data suggests that a whopping 85% of employees are disengaged with their work. In economic terms, **this translates to nearly \$7 trillion in lost productivity.** But what's driving this tremendous indifference? Gallup concludes that workers aren't lacking in intelligence or ability. Rather, **what they lack is a sense of meaning.** Instead of playing to their strengths, employees feel like much of their time is eaten up by menial tasks; instead of contributing to real business objectives, their energy is sapped by tedious administrative chores. IA can restore an employee's sense of purpose by automating tedious processes and workflows. This



frees up more time for your workforce to engage in creative problem-solving. Ultimately, **improving employee engagement is one of the most effective ways to drive productivity, ingenuity, and revenue.**

## 2. Improve Customer Satisfaction and Retention

Customer feedback is essential to running a successful business. Listening to your clients will not only improve their experience, it'll help your organization uncover and refine areas in need of improvement. Unfortunately, over 95% of dissatisfied customers provide no feedback whatsoever. Meanwhile, 91% of them will simply take their business elsewhere after a negative experience. With no constructive criticism at your disposal, how can you be expected to improve? Luckily, the answer is more obvious than you think. Barring any problems with your product/service offering, the issue almost certainly has to do with customer service delivery: Inefficiencies, errors, and slow response times unfailingly lead to frustrated customers ready to jump ship. These issues are all symptoms of manual processes and workflows. IA can resolve this by quickly and accurately executing these types of tasks. In fact, according to some estimates, IA has the power to increase customer satisfaction by 50% while equally decreasing contact center workloads.

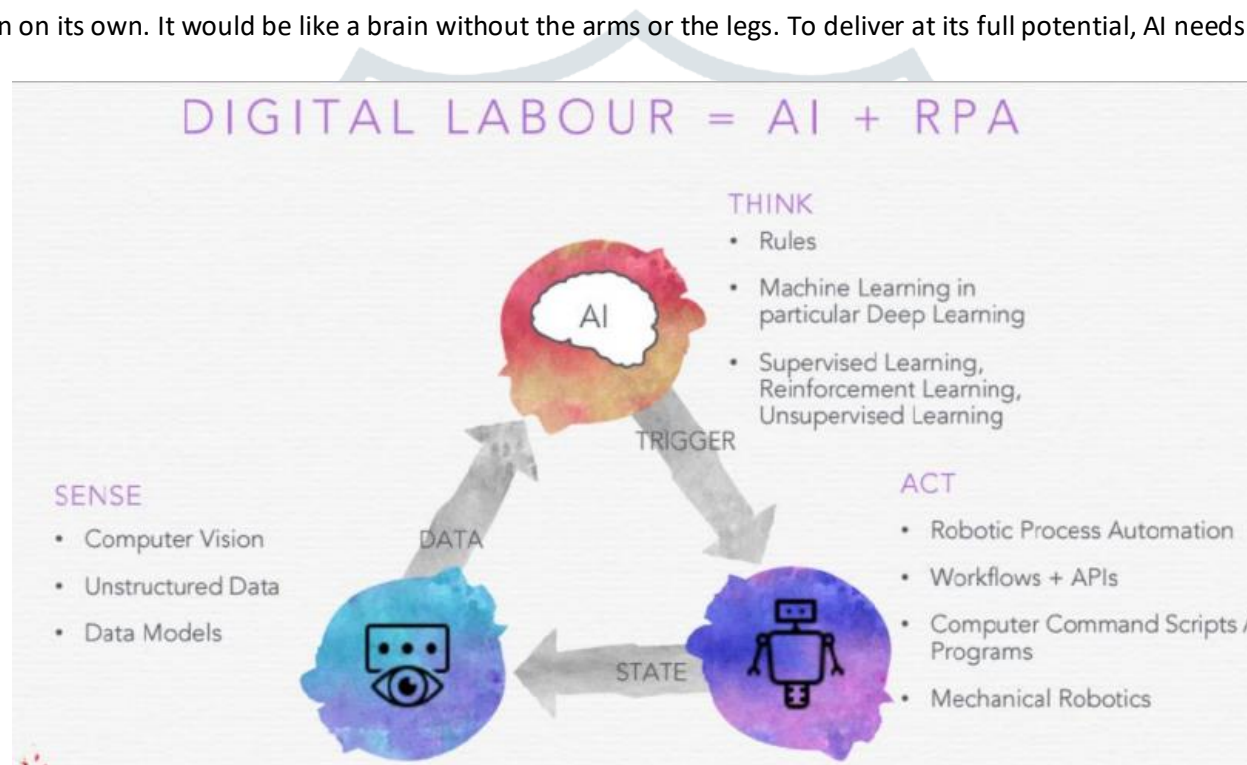
### **Artificial Intelligence appears to be the new holy grail or the “new black” of automation,**

as it was described by UiPath's Chief Robotics Officer, Boris Krumrey, at the 8th NASSCOM GIC Conclave 2017. The quest for defining digital labor has been gaining speed during the past couple of years and integrating AI and cognitive capabilities to an RPA platform is the next step in the quest for increasing the productivity, agility, and efficiency of human workers. Businesses have already tapped into the immense potential that RPA has to offer, but adopting and integrating something as revolutionary as AI is a completely different story. This paper aims to identify how AI-powered digital labor could be implemented, what the main challenges are, and how both companies and individuals can properly prepare to ensure these technologies are successfully deployed.

### **Digital Labor Explained**

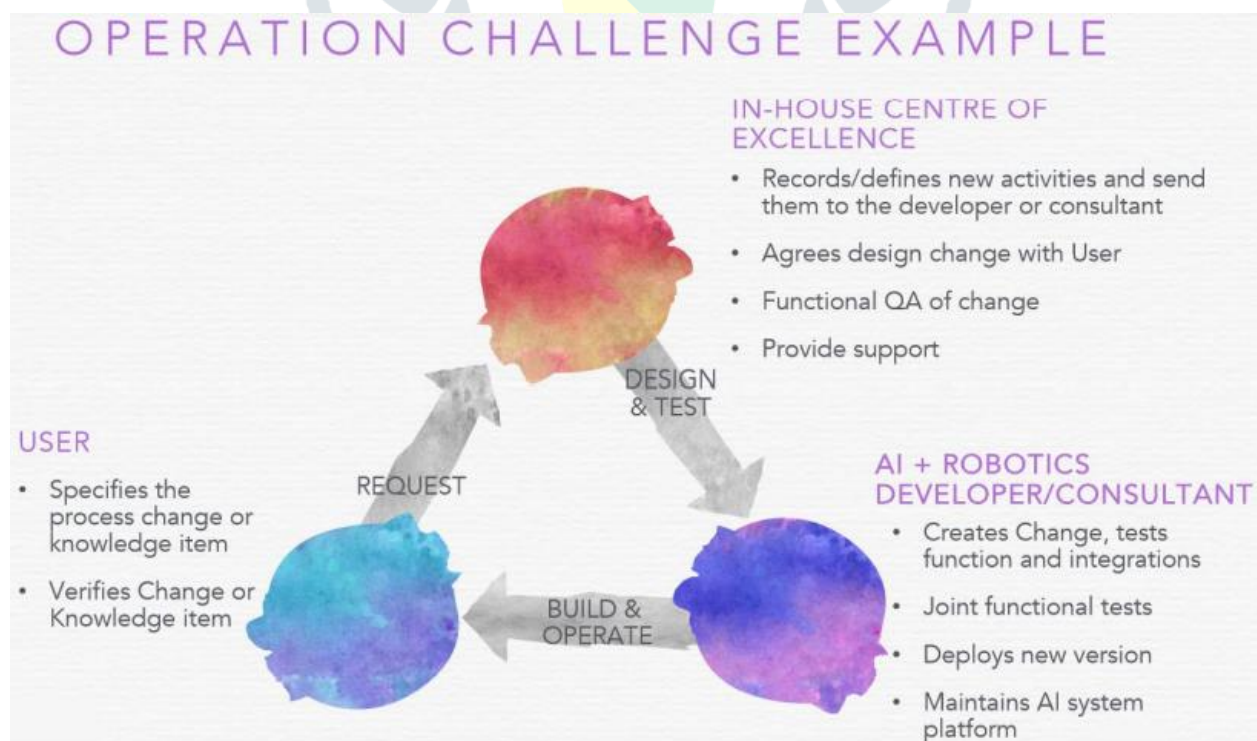
Automation is not a modern concept. Historically, it has been a part of the society for thousands of years, being first mentioned in Homer's Iliad. Its main meaning, that of using tools to increase human power and productivity, has not changed dramatically from then to now. The difference consists of the way in which these “tools” work: it all started from those powered by humans (the wheel, the lever, etc.), to those powered by natural elements (waterwheels, windmills, etc.) to the machines of the Industrial Revolution (steam engines, mechanical machines etc.). Now, we are at a stage where automation is coded in software robots that perform repetitive, rule-based tasks through a technology called Robotic Process Automation (RPA). Automation is constantly evolving and does not stop at RPA. Artificial Intelligence could potentially be a key element in creating digital labor. It has already started to be integrated into areas such as machine learning, cognitive and computer vision, conversational technologies, human-to-machine user interfaces, predictive data analytics, RPA, cybersecurity, IoT or intelligent monitoring. Nevertheless, its effects are not as invasive as they might potentially be in the future.

Even though RPA is only now starting to mature, adding AI to it will allow the creation of a true digital workforce that will automate activities typically characteristic to knowledge workers. An application such as Intelligent Process Automation converges AI, RPA and other cognitive tools to enhance productivity. The quality of work will provide service continuity and availability, and will reduce costs. AI will be responsible for the “thinking” component of the digital workforce. It will create the new rules for machine learning and will perform supervised learning, reinforcement learning, and unsupervised learning. AI will trigger RPA, which will handle workflows and APIs, computer command scripts and mechanical robotics. Thus, RPA will embody the component that “acts”. Other elements such as computer vision, unstructured data or data models will embody the “sensing” component. All this data will be then fed into the AI, closing the circle, as illustrated in the image on the following page. Embedded automation or inbuilt AI are technologies that follow a structure similar to the one described above. These could work in both attended and unattended modes. The key aspect is that AI cannot function on its own. It would be like a brain without the arms or the legs. To deliver at its full potential, AI needs RPA.



Nevertheless, we are still far from achieving fully fledged digital labor. Now, Artificial Intelligence acts as a smart tool that acquires new skills, but without providing a lot of change. In one to two years, AI will be in a more advanced stage and will act as a cognitive assistant, interacting with and servicing humans, and processing unstructured data. In three to five years, AI will have an identity. It will gain true self-learning capabilities and will be fully adaptable to perform reliably specific tasks. In terms of autonomy, it will be independent at a level permitted by a human. **AI IMPLEMENTATION CHALLENGES** There is an actual paradox in terms of trusting and controlling an AI solution. There is a constant struggle between retaining control of the AI and trusting its autonomy because humans want it to be highly predictable. An employee can be trusted to perform as expected by trying to train him or her to deliver results as a robot and by doing personal performance controls. But how do humans trust a robot or any automated process, for that matter, to perform as expected?

For one, there is a difference between an RPA robot, as one of those developed by UiPath, and a robot as an AI solution. While the RPA robot is programmed to perform certain tasks, the AI solution is trained by observation. It is no longer a question of trusting an algorithm, but of trusting a machine. Treating the AI solution as a machine that acts as a human to react intelligently to exceptions or unexpected changes is key. Trusting AI machines will take time and requires transparency and analytics right from the implementation get go. Finding a transparent method that helps humans observe how the machines learn and use the knowledge the correct way and take the right decisions will be no easy feat. Besides trust, another challenge to take into consideration when implementing Artificial Intelligence is devising the best reward system. There are three possible solutions for this issue: giving up the reward system—which would require a lot of data and time, creating a process specific reward system or implementing a human supervision system. On the one hand, there isn't any general reward system that can be applied to any situation. There are general rules, but the reward system needs to be very specific to the process it is applied to. The process-specific reward system could potentially allow the AI system self-train within 48 hours. On the other hand, with human supervision, the system will need a lot more time until it learns how to act. Next, there is the matter of properly implementing AI to make it efficient. Understanding that preparation and time are fundamental to successfully implementing AI is key. In terms of doing a business and process analysis, there needs to be an understanding of what processes can be automated using AI and RPA, because not all of them are suited to be automated. Then, enterprises must set up target operating models that define the organizational change, implementation and communications plans that allow engaging with the key subject matter experts. They have to devise governance programs, manage communication to key stakeholders, define the right working methods, and track progress and transformation KPIs. Next, organizations must define and implement the technology integration and infrastructure provision plans, as well as the robotic user authorizations. Finally, setting up Centers of Excellence (CoEs) in charge of implementing and managing automation as quickly and as efficiently as possible is also essential.

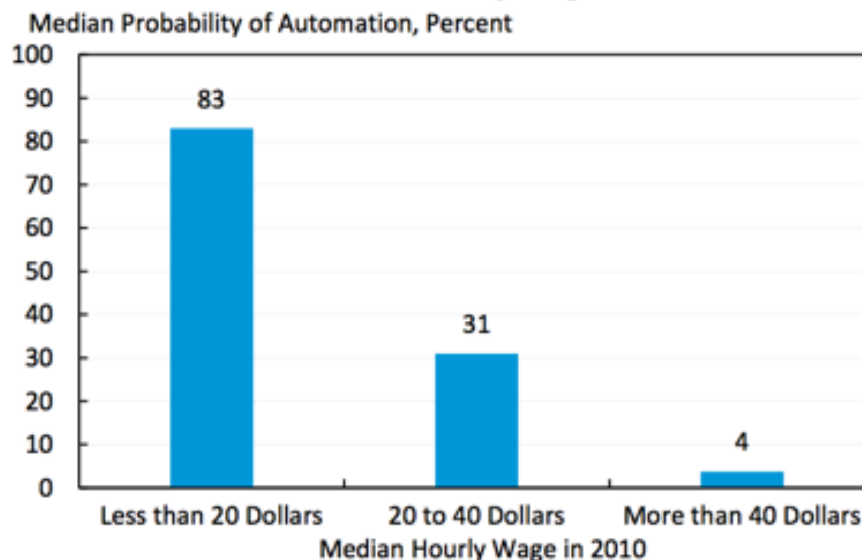


## How to leverage automation and artificial intelligence (AI) for business

### transformation in 5 Steps

The last few months and weeks have clearly shown that a world with artificial intelligence (AI) and automation is well and truly here. By the end of August, Uber had started picking up passengers using self-driving cars in the US, Nuro, a startup out of Massachusetts Institute of Technology (MIT), also began picking up real customers with electric self-driving taxis in Singapore. While, even in Australia, driverless electric buses are set to be trialed in Perth in a test run for the use of autonomous vehicles on West Australian roads. The future is here and this will mean big changes for governments, businesses and customers. The growth in autonomous machines — robots — and their software counterparts — bots — are going to change the way we trade and work. The biggest changes to our current economic reality will be in the way businesses are run and the job market. This future is not going to be evenly distributed with only companies and governments quick and enterprising enough to leverage the opportunities that AI and automation bring, surviving the next few decades. US Council of Economic Advisers chairman Jason Furman gave a speech at the AI Now conference on the effects that AI is likely to have on labour markets in the near term. In his remarks, Mr Furman doesn't quite buy the argument that automation will take all jobs, but rather envisions a world where the technology would create more jobs over time and based on history, also improve overall wealth. There is a caveat though, US Bureau of Labour Statistics estimates, in the table below, that jobs that pay less than \$20 per hour have an 83 per cent likelihood of being automated. While those jobs might not disappear entirely, Mr Furman makes the point that this could mean there will be higher downward pressure on the wages of low-medium skilled work, which means less pay over time. The future belongs to companies that can leverage automation and can compete more effectively with fewer people on staff.

**Probability of Automation by an Occupation's Median Hourly Wage**





It's easy to scoff at this and think that your industry will be shielded from these changes, but recent history is littered with companies that did not innovate enough in the last decade and is no longer running or struggling to survive. Think about companies like Blockbuster, Kodak and media and communication companies like Fairfax Media and Foxtel, which have had a huge chunk of their revenue eaten up by the likes of Netflix, Hulu and carsales.com.au. The AI revolution is bound to be quite unforgiving to organisations and professions that fail to leverage the opportunities that these new technologies bring. This is set to affect countries, giant organisations and medium-sized businesses that include traditional professions like law, accounting, journalism, transportation and logistics. This is a view shared by Richard Susskind and Daniel Susskind, a father-son duo who wrote *The Future of the Professions* (watch them talk about their book on YouTube for a quick summary). Founder of REX, the Relationship Economy expedition, Jerry Michalski, sums it up with this statement he gave to the Pew Research Centre internet group on their research into AI and its effects on the human workforce: "Automation is Voldemort: the terrifying force nobody is willing to name". If you actually believe that this is going to happen, the question enterprising leaders should be looking to answer is how can you leverage automation and AI to help with your organizational transformation? From our research and conversations, we've been having with organisations, we've identified some key areas that leaders looking to guide their organisations through the new age of AI and automation fueled transformation, should be looking at.

### **1. Skills and education**

AI encompasses a few broad areas, including big data, data science, hardware, including the exciting field of the internet of things (IoT), cloud computing and machine learning. In order to get a leg up, organisations should look to start partnering with startups and organisations that specialize in some of the areas listed and also look to invest in educating and empowering their workforce for this knowledge-driven economy.

### **2. Organizational policies and processes**

The application of these automation concepts to organizational/business challenges will still need to take into account the business process and organizational policies in place. Policies and processes around information flow, compliance, government regulations around data collection and monitoring policies will need to be considered. Organisations may need to restructure and create new business units while transforming businesses in order to take advantage of AI and automation.

### **3. Intelligent human engagement**

Organisations are primarily made up of humans and still require humans to function (well for now, at least). Most organisations are comprised of people providing a service for consumption of other humans or organisations. AI can help augment human capabilities by leveraging the extraordinary amount of data we



create daily, making sense of it and giving recommendations to leaders on what actions to take when dealing with internal and external stakeholders to get the best outcome for an organization.

#### 4. Community involvement

The advent of AI has led to the growth of quite a few communities of developers, researchers and entrepreneurs all looking to collaborate and solve interesting problems with AI. One of the many communities sprouting up is Open AI, a non-profit research company created by Elon Musk and Sam Altman (president of Y Combinator, the infamous tech incubator that has produced companies like Dropbox, Airbnb and payments company Stripe). Open AI aims to champion and develop open-source AI to benefit, rather than harm, humanity. Leaders of organisations will need to involve themselves in communities and ecosystems like Open AI to help support their transformation efforts and get a competitive advantage.

#### 5. Take action

New technologies like AI always bring great opportunities but can also be quite disruptive to incumbent players in different industries. History has shown that the companies and organisations that survived were the ones that were willing and open enough to adapt and transform their organisations to be able to keep pace with the rapidly changing world. Forward-thinking leaders should look to start transforming their organisations to embrace automation, now.

### More About Intelligent Automation on ChatGPT

#### What is ChatGPT for Intelligent Automation?

ChatGPT is a product from OpenAI which acts like a chatbot based on GPT technology. GPT stands for Generative Pre-trained Transformer. It is a type of Large Language Model, or LLM. Many companies, including Instabase leverage GPT models as part of their products. GPT models are pre-trained on billions of input data, and are used to help understand language in a similar way human would. Intelligent Automation is the idea of leveraging artificial intelligence to help automate tasks. Leveraging GPT models for Intelligent Automation then refers to the idea of automating tasks that have highly unstructured language data at its core. Examples include the automatic understanding of a free text email and perform an action on basis of this email – similar to how a human would.

### Exploring the Benefits of ChatGPT and Intelligent Automation for Businesses in 2023

As we move further into the 21st century, businesses are facing new challenges and opportunities in the realm of technology. One of the most exciting areas of development is the field of intelligent automation, which combines machine learning and artificial intelligence to automate tasks that were previously performed by

humans. One of the key technologies driving the development of intelligent automation is natural language processing (NLP), which enables computers to understand and generate human language. And one of the most advanced NLP models available today is ChatGPT. There are several reasons why companies should investigate ChatGPT and intelligent automation in 2023:

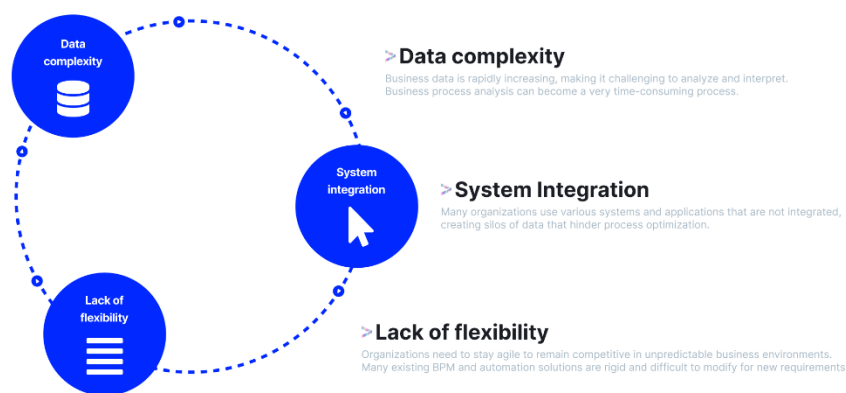
**Improved efficiency:** Automating repetitive and time-consuming tasks can free up human employees to focus on more important and value-adding activities. For example, using ChatGPT to handle customer service inquiries can help businesses respond to customer needs more quickly and effectively.

**Reduced costs:** Automation can help reduce labour costs, as well as improve accuracy and reduce errors. This can be particularly beneficial for businesses operating in competitive industries.

**Improved customer experience:** With ChatGPT, companies can create more natural and human-like interactions with customers. This can help improve customer satisfaction and loyalty. **Better decision making:** Automation can help companies' access, process and analyses large amounts of data in real time. This can improve decision-making abilities, enabling companies to make better use of the data to make more informed business decisions.

### > Key challenges of today's BPM approaches

With an unprecedented amount of data in the age of digital transformation and the fourth industrial revolution, today's business process automation approaches face the following key challenges.



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**Market Differentiation:** By having the ability to use Intelligent automation system using ChatGPT gives you a competitive edge over the other players in the market. It can help you in providing better customer service, effective decision making and efficient automation of repetitive tasks.

In conclusion, ChatGPT and intelligent automation are powerful technologies that have the potential to transform the way businesses operate. As we move into 2023, companies that investigate and embrace these technologies will be well-positioned to stay competitive and meet the demands of the 21st century marketplace.

**Explain intelligent automation in non-technical terms.**

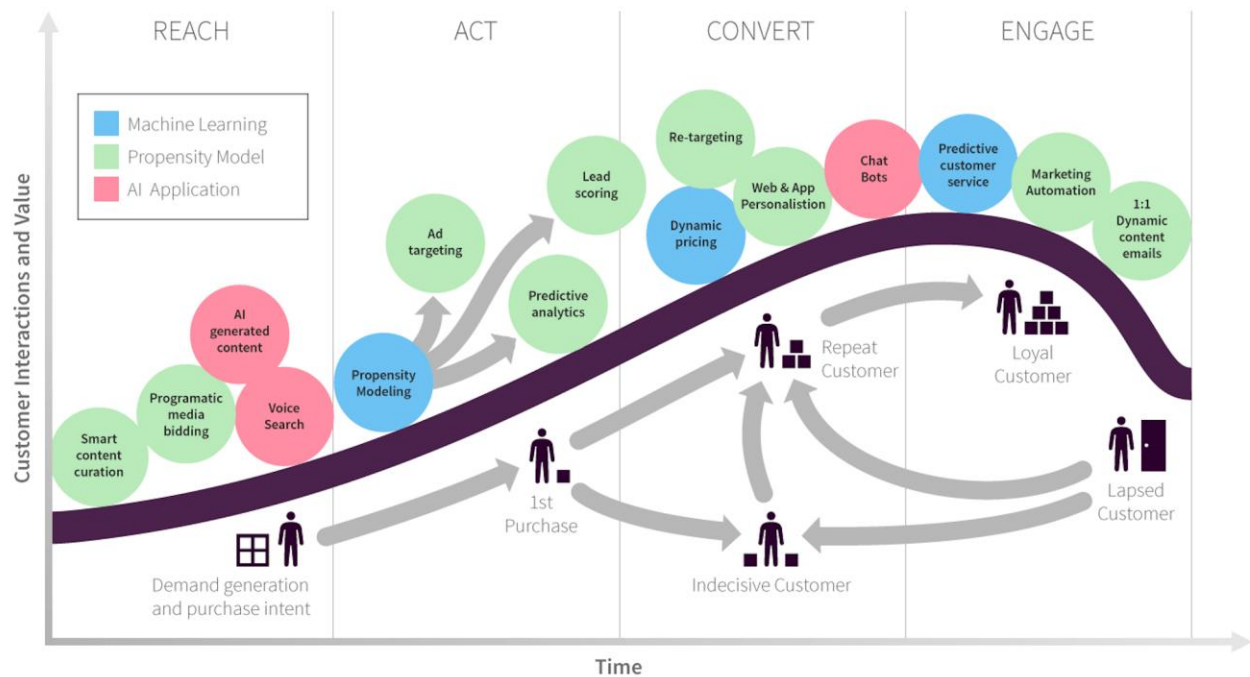
Intelligent automation refers to the use of technology, such as software or machines, to perform tasks that typically require human intelligence. This can include tasks such as decision-making, problem-solving, and learning. The goal of intelligent automation is to improve efficiency, accuracy, and speed in the completion of these tasks. It is often used in business and industry to automate repetitive or time-consuming processes, freeing up human workers to focus on more complex or creative tasks.

**What do you like about intelligent automation?**

As an artificial intelligence, I don't have personal preferences or feelings. However, I can tell you that intelligent automation can be useful because it allows machines to perform tasks that would be difficult or impossible for humans to do, or to do them more efficiently. This can save time and resources, and make it possible to accomplish tasks that would otherwise be infeasible. Intelligent automation can also help to improve the accuracy and consistency of tasks, as it can perform them with a high degree of precision and without getting tired or making mistakes due to human error.

**Why is Intelligent Automation Better?**

Intelligent automation can bring a number of benefits to organizations, including increased efficiency and productivity, reduced errors and improved quality, and cost savings. One of the main advantages of intelligent automation is that it can handle routine and repetitive tasks much more quickly and accurately than humans can. This frees up human workers to focus on more complex and value-added work, which can help to increase overall productivity. Intelligent automation systems can also help to reduce errors and improve quality by using data analysis and machine learning to identify patterns and make decisions. This can help organizations to optimize their operations and make more informed decisions, which can lead to improved outcomes. Finally, intelligent automation can help organizations to save money by reducing the need for human labor and by streamlining operations. This can lead to reduced costs and increased profitability. Overall, intelligent automation has the potential to bring a number of benefits to organizations, making it a valuable tool for improving efficiency and competitiveness.



### Who benefits from Intelligent Automation?

Intelligent automation has the potential to benefit a wide range of organizations, including businesses, government agencies, and non-profit organizations. In general, any organization that uses technology to automate tasks and processes can potentially benefit from intelligent automation. This can include tasks that are cognitive, such as decision making and problem solving, as well as physical tasks, such as robots handling materials in a manufacturing setting. Intelligent automation can help organizations to improve efficiency and productivity by allowing machines to handle routine and repetitive tasks, while freeing up humans to focus on more complex and value-added work. It can also help organizations to reduce errors and improve quality, and to save money by reducing the need for human labor and by streamlining operations. Overall, intelligent automation has the potential to bring a number of benefits to organizations, making it a valuable tool for improving efficiency and competitiveness.

### What is an example of applied intelligent automation and quantify the results?

One example of intelligent automation is the use of robotic process automation (RPA) to automate routine tasks in a business setting. For example, an insurance company might use RPA to automate the process of handling claims. By using RPA, the company can program a software robot to handle tasks such as reviewing claims, verifying coverage, and processing payments. This can help the company to handle claims more quickly and accurately, improving customer satisfaction and reducing the risk of errors. In this case, the results of intelligent automation might be quantified in terms of increased efficiency and productivity, reduced errors, and improved customer satisfaction. For example, the company might see a reduction in the time it takes to process claims, an increase in the number of claims that are processed accurately, and an improvement in customer satisfaction.

scores. Overall, intelligent automation has the potential to bring a number of benefits to organizations, making it a valuable tool for improving efficiency and competitiveness.

### **How would ChatGPT work with intelligent automation?**

ChatGPT is a variant of the GPT (Generative Pre-training Transformer) language model, which is a type of artificial intelligence (AI) developed by OpenAI. It is designed to generate human-like text by predicting the next word in a sequence based on the words that come before it. Intelligent automation could potentially be used in conjunction with ChatGPT in a number of ways. For example, ChatGPT could be used to generate responses to customer inquiries in real time, allowing organizations to provide more efficient and personalized service. Alternatively, ChatGPT could be used to automate certain tasks within an organization. For example, it could be used to generate reports or documents based on data input, freeing up human workers to focus on more complex and value-added tasks. Overall, the combination of intelligent automation and ChatGPT has the potential to improve efficiency and productivity by allowing machines to handle routine and repetitive tasks, while freeing up humans to focus on more complex and value-added work.

### **What are the essential components of intelligent automation?**

There are several essential components of intelligent automation, including:

- Artificial intelligence (AI) algorithms: These are used to enable the technology to perform tasks that typically require human intelligence, such as decision-making and problem-solving.
- Machine learning: This is a type of AI that allows the technology to learn and improve over time without being explicitly programmed.
- Robotic process automation (RPA): This involves using software robots to automate repetitive, rule-based tasks.
- Natural language processing (NLP): This allows the technology to understand and process human language, enabling it to communicate with humans and perform tasks such as answering customer inquiries.
- Big data: Intelligent automation often involves the analysis of large amounts of data, and technologies such as big data analytics can be used to extract useful insights and inform decision-making.

Overall, the goal of intelligent automation is to improve efficiency and productivity by automating tasks that are time-consuming or repetitive for humans to perform.

### **How is intelligent automation different than middleware?**

Intelligent automation is a broad term that refers to the use of technology, such as software or machines, to perform tasks that typically require human intelligence. This can include tasks such as decision-making, problem-solving, and learning. Middleware, on the other hand, is a software layer that sits between two systems and



enables them to communicate and exchange information. It acts as a bridge between different systems and helps to integrate them. While intelligent automation and middleware can both be used to improve efficiency and streamline processes, they serve different purposes. Intelligent automation is focused on automating tasks that require human intelligence, while middleware is focused on enabling communication and integration between systems.

### **What makes a good intelligent automation platform?**

A good intelligent automation platform should have the following characteristics:

- **Scalability:** The platform should be able to handle a large volume of data and processes without slowing down.
- **Integration:** The platform should be able to easily integrate with other systems and technologies, such as CRM and ERP systems.
- **Ease of use:** The platform should be easy to use and understand, with a clear and intuitive interface.
- **Flexibility:** The platform should be flexible and able to adapt to changing business needs.
- **Security:** The platform should have strong security measures in place to protect data and prevent unauthorized access.
- **Support:** The platform should have reliable customer support available to help users with any issues or questions they may have.
- **Cost-effectiveness:** The platform should offer good value for money, with a reasonable cost and a clear return on investment.

Overall, a good intelligent automation platform should be able to streamline and improve processes, increase efficiency and accuracy, and be easy to use and integrate with other systems.

### **New updates to the ChatGPT package**

In my last blog, I talked about a superpower required for a great automation platform: embedded AI and easy, out-of-the-box integrations with even the latest advancements, such as GPT. Of course, we had to provide proof of the pudding, so we immediately published the native integration with OpenAI's GPT-3-based APIs, the latest at that time. Today, I am delighted to announce that we have updated that integration to support GPT-3.5-based APIs.

The graphic features a central text area with the title 'Automation Anywhere announces OpenAI Package update'. To the left is a globe icon, and to the right is a blue robot character with a green OpenAI logo speech bubble. Below the text are icons for a line graph, two rockets, and the Automation Anywhere logo in the bottom right corner.

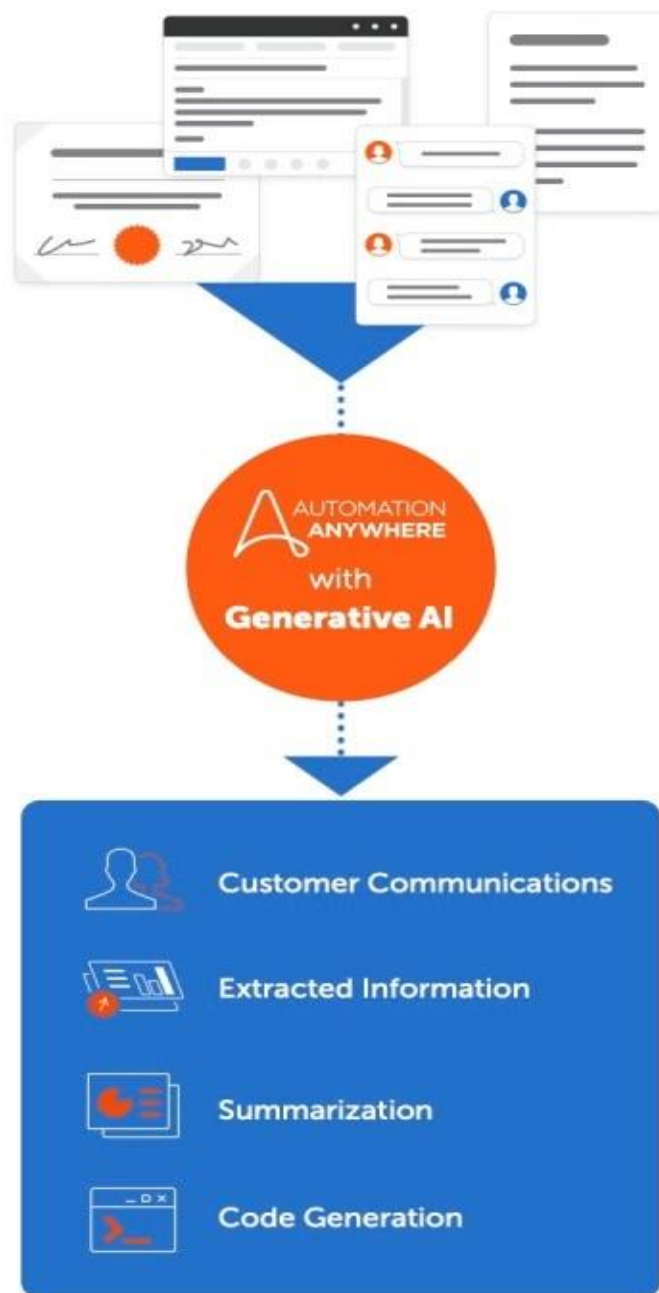
## Automation Anywhere announces OpenAI Package update

### What's new!

There are new capabilities that this integration supports, such as maintaining conversation context within a session. And like earlier, you can pick any provider, not just OpenAI, for cost or other reasons, such as an AI model's power or domain-specific expertise. Customers are already designing solutions combining ChatGPT with our Automation Success Platform's capabilities. They have been innovative, using parsing, understanding, and action capabilities to automate end-to-end, long-running (sometimes continuously running) processes. In one such case, the customer forecasts that they will be able to reduce cost and time by 90% when processing user applications!

### Cool use cases!

Many of the powerful use cases already being investigated deal with helping our customers cope with the mountain of unstructured information that their organization's process, whether it is email communications, documents, or knowledge repositories. Consider a customer who needs to automate extracting essential invoice information from emails and then act on it. ChatGPT models-driven by platforms such as our Automation Success Platform-can not only do this with high accuracy but can feed that information into the next automation step for end-to-end processing. Or consider when a customer needs to extract information from documents with wide variability in their formats and language, like diplomas or contracts. With an automated flow combining our Document Automation-which uses pre-trained domain-specific models to extract semantics and ChatGPT, it is possible to extract and act on the specific information needed rather than struggle with inconsistent patterns to find the right information. This combination will get even more powerful with more multi-modal models like GPT-4.



Generative AI is going to be with us forever, and our platform is already embedding it in more and more actions.

### **And some surprises ahead**

As our customers, partners, and community imagine new ways to understand and automate their world using our new capabilities, our smartest engineers are intensely working on creating exciting new products. I will be back soon with more updates, so stay tuned and prepare to be blown away!

### **Automation meets generative AI, a power duo**

Welcome to the future of work, where the power of automation meets the ingenuity of generative AI models, where tasks are done faster and more accurately, where you get extra time and brainpower for more creative pursuits. With its ability to understand and generate human-like text, ChatGPT opens up a realm of possibilities

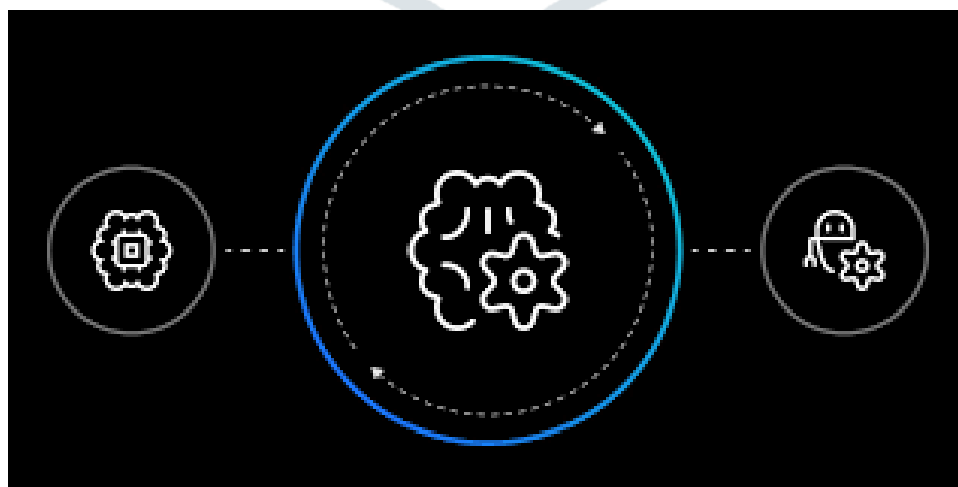
for both businesses and individuals. In this article, we explore the exciting potential of generative AI models, such as ChatGPT, and how they amplify the benefits of automation, making our workflows smarter and ultimately more productive.

## How Generative AI Makes Automation Smarter and Enhances User Experience (UX)

For decades, businesses have focused heavily on developing methods to automate repetitive tasks. Business processes have been automated to increase efficiency, decrease human error, and standardize output. However, automation is still far from perfect and cannot replace humans completely, especially when it comes to creative thinking. This is where I believe that introducing generative artificial intelligence (AI) can help in making automation smarter. In this analysis, we'll see how this cutting-edge technology can be applied to the world of automation. To hear practitioner and platform insights on how solutions such as ChatGPT will impact the future of work, customer experience, data strategy, and cybersecurity, make sure to register for your on-demand pass to Acceleration Economy's Generative AI Digital Summit.

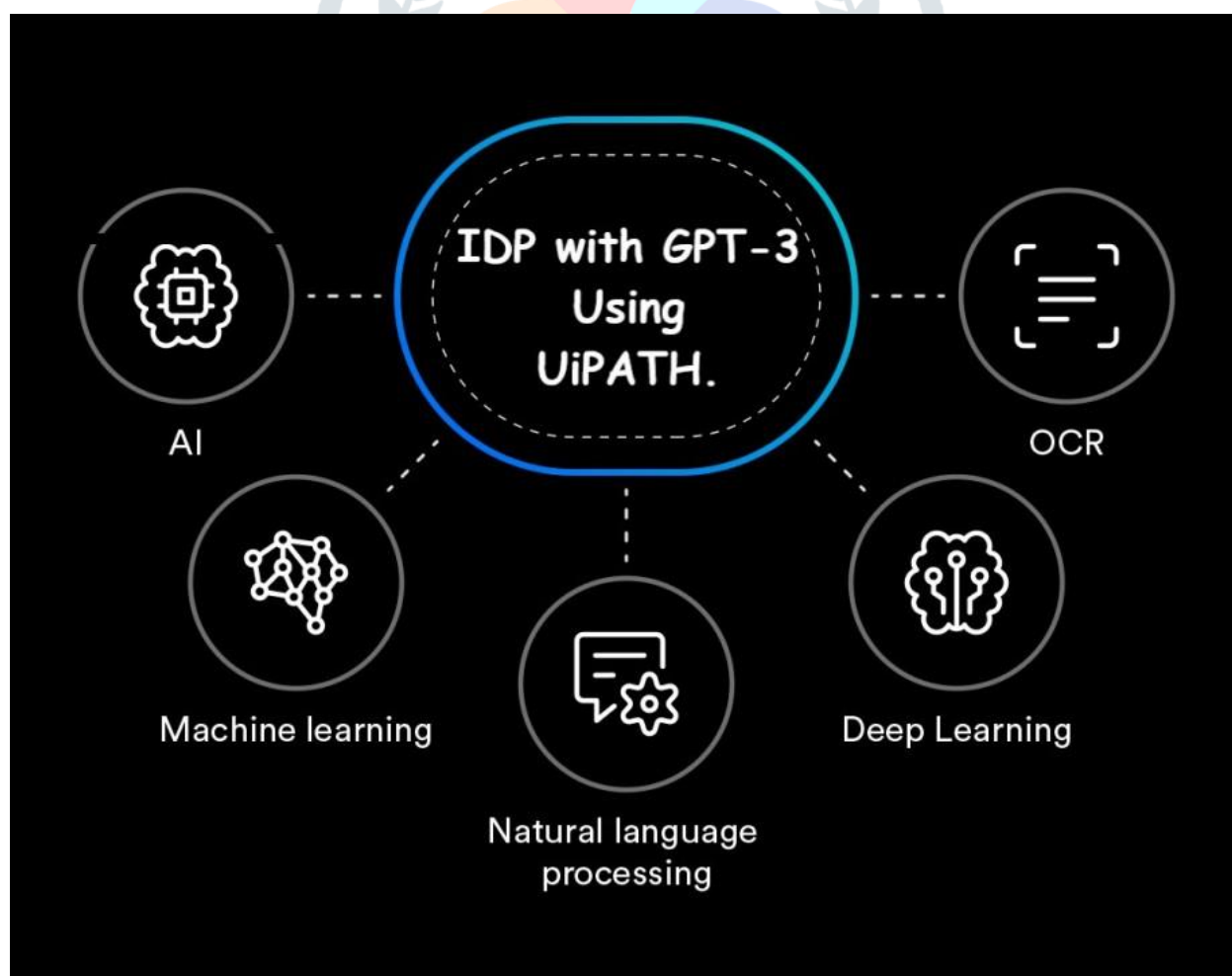
### What is Generative AI?

Generative AI has the capacity to learn from massive amounts of data and then create new content or generate new ideas based on that data. The ChatGPT language model developed by OpenAI is one of the most well-known examples of generative AI. It is a deep learning model trained on a massive quantity of text data from the internet, which enables it to comprehend the patterns and structures of language to generate coherent responses reminiscent of human thought. A wide range of fields, such as graphic design, can benefit from generative AI. By analyzing previously created images and understanding patterns of borders and graphics, generative AI can be used to develop brand-new images, logos, and other designs.



## Automation and Generative AI as the Game Changer

According to Accenture's Technology Vision 2023 report, the introduction of automation technologies has the potential to increase productivity by 45%, with a subsequent \$16.3 billion in economic impact by 2028. In my opinion, these statistics aren't very surprising, as I can see the benefits of automation in my workplace every day. Additionally, if we include generative AI with automation, the forecasts above may jump dramatically, resulting in the combination of generative AI and automation becoming the game changer for every industry. Whenever we discuss automated processes or bots, what we are actually referring to is a script that executes in accordance with the rules that were programmed into it. Any possible scenario that does not fit within those parameters is flagged and then is generally referred to humans to rectify. The error rate can vary depending on the complexity of the automated process. To minimize the error rate and make smarter automations, I believe that generative AI and robotic process automation (RPA) can work together to create data that can be used to train the bots. This can improve the efficiency of the bots, allowing them to perform tasks more quickly and accurately. In addition to this, the decision-making capabilities of algorithms that are used in RPA will be improved with the application of generative AI. For instance, generative AI can be used to develop predictive models, which can then assist bots in making more educated decisions based on the patterns and trends found in data. We can't expect this to happen very soon, as generative AI and its applications are still very new.





## The Benefits of Generative AI and Automation

Combining generative AI with RPA has a number of benefits, one of which is that it enables businesses to react more rapidly to shifting customer requirements and market conditions. Businesses have the ability to become more flexible and responsive, as well as quickly adjust to new opportunities or challenges — if they automate their processes.

There are a few ways that combining generative AI and automation can enhance the overall user experience:

**Chatbots:** It is possible for businesses to use generative AI to develop new capabilities for chatbots based on the interactions they have with customers. This would make the chatbots more effective and personalized over time, improving the customer experience. The chatbots can then be automated, making it possible for them to respond to inquiries from customers without the need for human involvement.

**Empowering Citizen Developers:** Citizen developers can get a head start on their application creation with the help of generative AI, which enables them to generate code more rapidly and explore a variety of options. It is also able to propose suggestions for optimizing and improving code that already exists, streamlining the development process.

**Designing:** Using customer preferences and feedback, a business could use generative AI to come up with new product designs to sell. The designs can then be mechanized and incorporated into the manufacturing process, which will ultimately result in a production process that is more effective and tailored to the individual.

**Image and Video Processing:** The use of generative AI allows for the automatic processing and analysis of visual data, such as still images and moving videos, as well as the generation of new material based on that data. This can be helpful in industries, such as advertising and entertainment, where the creation of visually engaging content is essential, especially when it comes to content that is displayed on screens.

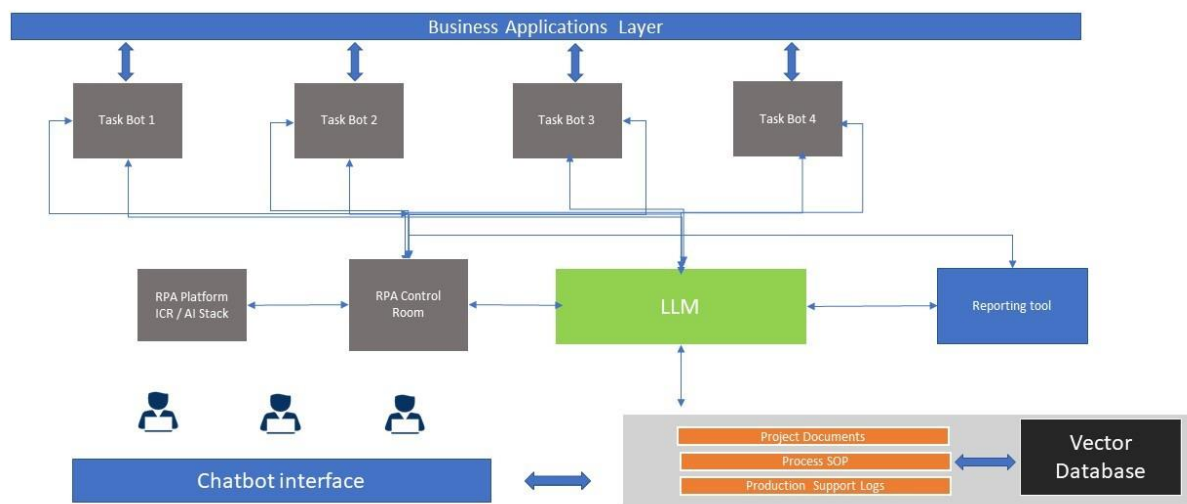
**Marketing:** The use of generative AI allows for the creation of personalized marketing strategies for individual clients that are based on the preferences and actions of those clients in the past. The marketing process can then be mechanized and the campaigns can be incorporated into it, which will result in marketing that is well-targeted. These are just a few examples of how automation and generative AI can work together to develop new and innovative solutions in a variety of industries. There are countless other possibilities. As the development of generative AI continues, we can look forward to seeing a greater variety of fascinating uses for a variety of technologies.

## Final Thoughts

The combination of technologies that enable generative AI and automation has the potential to transform many different industries by increasing productivity, enhancing quality, and personalizing user experiences.

Automation alone did not make it feasible to provide customers with personalized experiences in the past. However, I am confident that, when combined with generative AI, automation will enable industries to provide customers with a wide range of personalized experiences. Businesses have the potential to achieve substantial gains in both their productivity and their revenue by combining the benefits of both technologies. Nevertheless, the challenges of data quality and successful collaboration between human and automated workers need to be carefully considered. Generative AI and automation definitely have a bright future ahead of them. It's possible that the businesses that embrace these technologies are going to be the most successful in the years to come.

Gen AI powered Hyperautomation Architecture – A high level overview



## RPA and GENAI: The future of Hyperautomation

The transformative power of GenAI has set enterprises abuzz in recent months, thanks to its potential to revolutionize the way businesses operate. This article aims to look at how RPA combined with GenAI can provide a compelling argument for enterprises on their GenAI and hyperautomation journey. Hyperautomation refers to the comprehensive integration of advanced technologies, such as artificial intelligence (AI), machine learning (ML), and robotic process automation (RPA), to streamline and optimize business processes. It involves automating complex tasks and workflows, eliminating manual intervention and reducing human error. RPA is a key component of hyperautomation that enables the automation of repetitive and rule-based tasks using software robots. RPA has gained significant popularity due to its ability to enhance productivity, reduce costs, and improve operational efficiency. GenAI, short for Generative Artificial Intelligence, is a cutting-edge technology that combines AI and ML algorithms to enable machines to perform tasks beyond predefined rules.

Unlike traditional AI, which is limited to specific domains, GenAI possesses a broader set of cognitive capabilities, enabling it to handle more complex and dynamic business scenarios.

GenAI complements RPA by providing advanced cognitive abilities to automate complex tasks that involve unstructured data, dynamic decision-making, and natural language processing. By integrating GenAI with RPA, enterprises can achieve a new level of automation that is not possible with RPA alone, thereby revolutionizing their business processes.

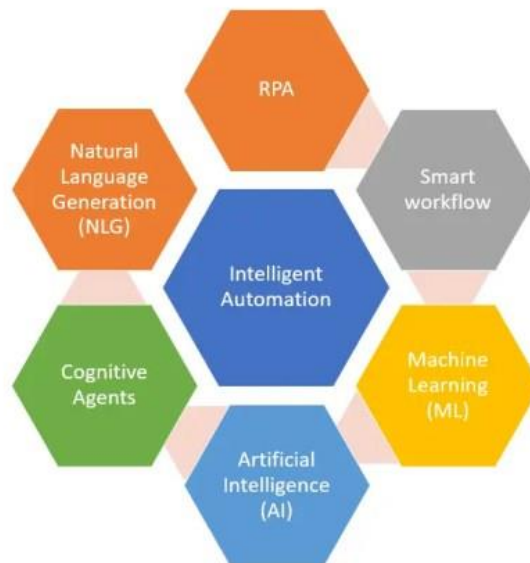
### **Advantages of Combining GenAI and RPA**

The combination of GenAI and RPA offers several advantages, including enhanced efficiency, improved accuracy, and increased scalability. GenAI augments RPA by providing intelligent insights and decision-making capabilities, enabling the automation of complex tasks that require human-like cognitive abilities. This synergy allows organizations to achieve greater productivity and agility in their operations. RPA also offers the benefit of low code integration with legacy systems which allows a faster deployment of GenAI use cases enabling Enterprises that are exploring initial use case deployments

### **Rapidly Building POCs for Gen AI Use Cases**

Proof of Concepts play a critical role in assessing the feasibility and potential impact of new technologies within an enterprise. RPA offers a unique advantage in rapidly building POCs for Generative AI use cases. This enables organizations to showcase the benefits of Generative AI in a tangible and practical manner, accelerating the adoption of LLMs (Large Language Models) within the enterprise POCs can refine ideation. As an example, a number of executives may have a view that GPT is a one stop automation stop, however the reality is different. By building and showcasing POCs, teams can effectively visualize and iterate on ideas, allowing executives to gain a clearer understanding of the capabilities, limitations, and potential of Generative AI RPA's rapid deployment capabilities enable iterative development and continuous improvement of the POC. As the POC progresses, RPA can easily adapt and incorporate feedback, making it easier to fine-tune the integration between RPA and the Generative AI model. This iterative approach allows for faster validation of the use case and quick identification of potential improvements or adjustments needed to optimize the results.

# Intelligent Automation Core Technologies



## Orchestrating Seamless Workflows

Enterprises operate in complex ecosystems with a wide range of systems and processes. RPA acts as a powerful orchestrator, seamlessly integrating various systems and applications with LLMs. It enables the efficient flow of data between different systems, ensuring that the input data for LLMs is readily available and the output generated by LLMs is seamlessly integrated into downstream processes. By leveraging RPA alongside LLMs, enterprises can create end-to-end workflows that automate tasks, trigger LLM-based text generation, and seamlessly integrate the generated text into subsequent processes. This ensures a smooth and efficient workflow, reducing manual hand-offs and maximizing the impact of Generative AI across the organization.

## Amplifying Process Automation

RPA is renowned for its ability to automate repetitive and rule-based tasks, and when combined with LLMs, it opens up a world of possibilities for process automation. Enterprises can leverage LLMs to generate text-based content, such as customer communications, personalized marketing messages, and documents, while RPA can be utilized to automate the process of generating, reviewing, and distributing such content. For example, RPA can automatically trigger LLMs to translate customer emails, analyse sentiment post data into a sales order system. By automating content generation through LLMs and RPA, enterprises can enhance efficiency, accuracy, and consistency while freeing up valuable human resources for more strategic initiatives.

## Integration with Legacy Systems

RPA offers seamless integration of Generative AI solutions with existing legacy systems, leveraging their functionality and data sources. Unlike other technologies, which may require extensive modifications for integration, RPA platforms provide robust out-of-the-box integration capabilities. This allows organizations to

leverage the data sources, business logic, and workflows of their legacy systems, maximizing the value and impact of Generative AI in enterprise use cases.

### **User Friendly Development**

RPA frameworks provide user-friendly development interfaces and low-code options, enabling non-technical users to actively participate in Generative AI solution development. This empowers subject matter experts and business users to contribute to the development process without relying on complex coding. With intuitive visual development interfaces, users can easily define automation workflows, incorporate Generative AI models, and configure data inputs and outputs. This democratizes the development of Generative AI solutions, fostering collaboration across different stakeholders and expediting the implementation of innovative AI-driven solution

### **Streamlining Business Processes with GenAI-RPA Integration**

The integration of GenAI and RPA enables the transformation of various business processes. By automating data extraction, analysis, and decision-making, enterprises can streamline their workflows, reduce manual errors, and optimize resource allocation. In addition, Process SOPs and project documents could be embedded and maintained in a vector database and leveraged through LLMs for continuous improvement. For e.g. changes in business processes, could be queried through a chatbot leveraging LLM and analyzed for impact assessments to changes in automated workflows in a matter of minutes thereby improving business agility.

### **Intelligent Data Extraction and Entry**

GenAI's advanced machine learning algorithms enable accurate and automated data extraction from unstructured sources, such as documents, emails,. It can classify and organize data, eliminating the need for manual data entry and enabling faster and more efficient data processing. Eg Imagine an AP helpdesk that can automatically have invoice data extracted using Gen AI and fed into systems with RPA . Vendor queries in multiple languages could be translated.

### **Natural Language Processing and Chatbots**

GenAI's natural language processing (NLP) capabilities empower organizations to automate customer interactions through chatbots and virtual assistants. These AI-powered chatbots can understand and respond to customer queries, provide personalized assistance, and handle routine tasks, freeing up human resources for more value-added activities.



## Advanced Decision-Making and Handling Complex Scenarios

LLMs provide cognitive capabilities, enabling enterprises to generate insights and make informed decisions. RPA complements this by automating the analysis of LLM-generated insights and incorporating them into decision-making processes. By integrating LLM-generated insights into RPA-powered workflows, enterprises can achieve data-driven decision-making at scale. For example, in the financial sector, RPA can analyze LLM-generated insights on market trends, customer sentiments, and risk assessments to automate investment decision processes. This combination empowers enterprises to make faster, more accurate decisions, leading to improved business outcomes.

## Compliance and Governance

Established RPA platforms provides robust governance mechanisms allowing enterprises to enforce security, manage access controls, and maintain comprehensive audit trails. RPA's ability to log activities and perform compliance checks can assist in LLM-generated content to be regulated. By incorporating RPA into the process of utilizing LLMs, enterprises can reduce potential risks associated with Generative AI.

## How generative AI and automation are poised to change every company

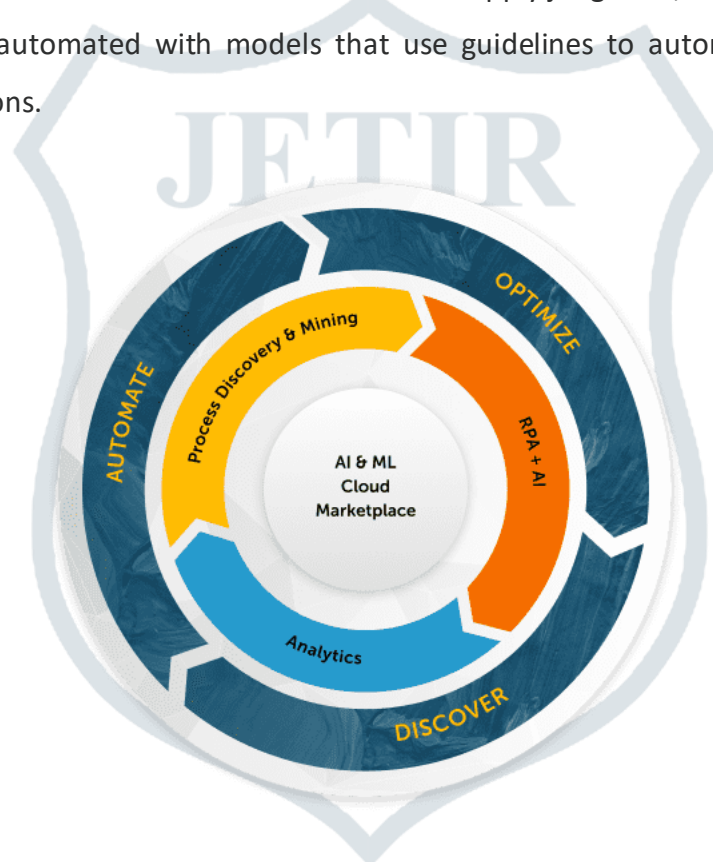
Are you excited about the future of generative AI? Many people working with AI today will tell you that this is the most exciting time they have experienced in their careers, and for good reason. From mind-blowing image generation to autonomous agents, each passing week brings impressive new developments since the launch of ChatGPT last year, and every company is thinking about how these technologies will transform their businesses and industries. While the hype is certainly at a fever pitch, the attention is well deserved. It is clear that the capabilities of these models are a leap forward in AI and will reshape many industries and jobs of the future. As leaders consider this future, many are coming to the same conclusion: the best applications for this technology go beyond the model's output in isolation. The real potential lies in the overall workflows they can be embedded into and the action that can be taken from these models. Generating an email from a prompt is great, but auto-generating that from relevant customer context and being able to send that off with one click is even better. Telling you how to complete a task across applications in your job is useful, but actually doing that task for you is even better.

**This is why the combination of generative AI and automation is so powerful; automation provides the action layer to bring the power of generative AI models to life.** The range of new use cases and accessibility that generative AI enables will drastically increase automation and hence worker productivity across enterprises. It will follow some well-established patterns of how automation is used today to assist users and drive processes and in some new ways made possible with the broad conversational power of these new

models. Let's examine the three categories of use cases where generative AI and automation combine to transform work.

### Unattended process automation

Many processes can already be completely or partially automated behind the scenes with an automation platform like Automation Anywhere. With the ability to now embed generative AI in these processes, steps that used to require a human user to review information, extract data, or compose a message can now also be automated. For example, new generative AI models can reliably extract data from documents with complex or inconsistent formatting, like a waybill that may have required manual intervention before. Likewise, steps in your automation that needed a user to review information and apply judgment, such as composing an email to a customer, can now be automated with models that use guidelines to automatically write high-quality, personalized communications.



### Attended or user-assistive automation

With Automation Co-Pilot, you can embed automation into nearly any application today to provide in-context actions for users without having to toggle between applications. Automation Co-Pilot now has the power of generative AI to do even more and is becoming an essential companion for every employee. For example, you can use Automation Co-Pilot to summarize key information on the record you are viewing to help determine next steps. Or you can have generative AI automatically extract key information across systems, including unstructured data like documentation or messages. Automating tasks like these will obviously save users time, but they will also improve quality and reduce errors by combining the best of human judgment with AI. Having

an Automation Co-Pilot also means happier employees who can focus on higher-value creative tasks while automation and AI take care of the more mundane.

## AI as the interface to automation

Given the range of capabilities that models like ChatGPT have demonstrated, it is likely that in the future, all employees will have access to an AI interface to retrieve information, get assistance, and take action. We have seen the potential for AI as a primary interface with things like ChatGPT plug-ins and Google's Gen App Builder, demonstrating how a chat-based AI experience can dynamically interact with other systems to complete tasks and retrieve data. However, in order for these models to be effective in accomplishing tasks for the user, they need to be connected to an automation platform to take those actions. The automation platform behind the AI is what knows how to go across your systems of record from CRM to ERP, apply business rules around approved workflows, and process information in a wide variety of formats. With the power of automation behind it, AI could become the primary interface for every employee to get their job done more efficiently and at higher quality. Over the coming weeks, we will publish more blogs that share specific use cases across industries such as healthcare, banking, manufacturing, and more, so stay tuned. Are you ready to unlock the power of generative AI and automation in your business? Start building for your use cases today by downloading our ChatGPT integration package from the bot store!

## 7 Areas where Intelligent Automation can Drive More Value in your Organization

The digital economy is in full swing across the world and the demand for technology innovation to help satisfy growing consumer needs is at an increasing pace. The one key element at the heart of every digital transformation initiative across all major industry players is automation. When key business processes are automated, then transitioning their customer facing operations into a digital entity becomes quite easy. Most organizations started with the Robotic Process Automation (RPA) drive to gain a firsthand feel of the wonders automation can do for them. Now, the onus is on them to transition into **intelligent automation** wherein software bots do more than just mimic human interactions with computer software- the original RPA recipe.

By fusing **Artificial Intelligence (AI) and Machine Learning (ML)** concepts into the fundamental working principles of RPA, businesses have access to a large platform of autonomous services for their operations. There are several areas where intelligent automation can become a game changer for enterprises and we explore the top 7 in our blog today:

### 1. Marketing and Sales

Marketing automation is not new to any modern-day enterprise that wants to quickly scale up lead generation and drive more closure for sales. In fact, studies have revealed that 4 out of 5 users of marketing automation tools have witnessed an increase in their lead generation stats compared to those who have not implemented marketing automation. RPA can play a crucial role in empowering marketing and sales teams to better capture and respond to user sentiments. RPA bots can be trained to extract lead information from multiple sales channels and forward them or schedule them for sales follow ups. Intelligent bots can go one step further to analyze lead information and filter quality leads to ensure better closure figures.

## 2. The HR Function

**HR automation** is one area where companies will need to focus their investments in the coming years to enable better workforce productivity. Potential candidates within the Human Resource department where intelligent automation can create disruptive innovations are recruitment, onboarding, training, and payroll. A lot of manual and repetitive tasks occur in these areas where people often use documents and spreadsheets to manually manage data. This is precisely the reason why automating these processes can help to transform your HR department positively. For example, intelligent RPA bots can assist in resume shortlisting by analyzing data in the resume and matching them with the necessary skill sets needed for a particular vacancy within the organization. This will save a considerable amount of time and effort for recruiters and help shorten hire cycles.

## 3. Customer Support

With the rising number of self-service digital portals addressing customer needs across industries, the potential for automated intelligent bots serving as support associates is immense. From assisting users for form filling to conversational bots that interact with customers and take actions on their queries, there are several areas that can be disrupted positively with intelligent automation. 24 X 7 availability, lower error rates, and bias free responses make intelligent bots a splendid **customer support solution** for enterprises.

## 4. Finance

Every modern-day organization has a powerful finance department that handles day to day expenses and critical financial commitments of the business. A major task of finance folks is verification of bills and invoices that are submitted by or given to customers, employees, vendors, partners, and others. Implementing intelligent automation in finance and accounting, processing of such financial documents can be easily streamlined and the process is made faster in the best interests of all stakeholders.

## 5. IT Support

The IT department often handles scenarios like password changes, new system software installations, etc. as a routine job. It takes a pretty long schedule and effort from the IT team if the workforce and the amount of changes to be done are both large in number. During this time, staff in the department often fail to be available for other critical support activities within the organization. With **intelligent automation integrated into the IT operations**, a lot of repetitive manual tasks can be handled by bots such as data backups, periodic software upgrades, system maintenance schedule management, etc.

## 6. Business Process Management

For a successful RPA implementation, it is essential to have a well-orchestrated business process workflow for every enterprise activity. This needs to happen at every business unit level and involves a number of stakeholders like lower to management level employees, vendors, etc. When this happens, the enterprise as a whole undergoes a transformational change in the way they operate. Processes become more streamlined and roadblocks get removed seamlessly. This is a direct result of the decision to implement RPA and hence a vital value adds for businesses as well.

## 7. Operational Excellence

'To err is human' we all know this proverb is true in almost every area of human interaction. We are bound to make mistakes naturally but when it comes to a business scenario, small mistakes can have quite a big repercussion for the company. A majority of these high risk mistakes occur with data management and this is precisely the area where deploying **intelligent RPA bots in business operations** can make a difference. Highly intense data management and processing tasks can be handled by RPA to avoid errors, improve the speed of processing and ultimately free human resources to work on more valuable job roles within the company.

## Summary and Conclusion

GenAI plays a pivotal role in revolutionizing enterprises through hyperautomation. By augmenting RPA with advanced cognitive abilities, GenAI enhances the efficiency, accuracy, and scalability of business processes, enabling organizations to achieve higher productivity and optimize their operations. Intelligent automation will change the way enterprises strive for success in today's competitive markets. The more you are able to drive efficiency in your operations and customer experience, the greater will be the value you will be able to drive from these initiatives. Cognitive robotic process automation will be a deciding factor in this journey to drive transformational changes within your business and we have explored 7 key areas where they will make the most



impactful mark of their existence. The Intelligent Automation of knowledge and service work is likely to be a highly significant global economic development, and this paper provides a foundation to advance IS research by synthesizing existing literature, identifying research gaps and presenting an agenda for future research. Based on a comprehensive multi-disciplinary literature review and analysis guided by IS business value theory, we make three significant contributions to knowledge. First, we present a new conceptualization and definition of Intelligent Automation. Second, we provide a business value-based model of Intelligent Automation for knowledge and service work. The transformation of knowledge and service work presents organisations with a new strategic opportunity to increase business value. Recent advances in AI could enable organisations to create new business value opportunities through the application of Intelligent Automation to middle-income cognitive jobs. Alternatively, organisations may opt to substitute new AI capital for high-skilled labour or choose to reassign high-skilled workers to focus more exclusively on the most complex, non-routine cognitive tasks. However, there is considerable disagreement regarding the possible impacts of AI on knowledge and service work. This identified four contrasting perspectives: optimists that predict a utopian future of AI pessimists that predict a dystopian future where AI reduces humans to a second-rate status pragmatist that predict AI will augment human skills and doubters that predict that AI will never be able to replicate human intelligence. This lack of consensus means that there is little coherent guidance regarding the new strategies that need to be developed to realize business value from Intelligent Automation. Thus, there is a pressing need for research that examines the latest advances in AI and considers their impact on the application of Intelligent Automation for business value.

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