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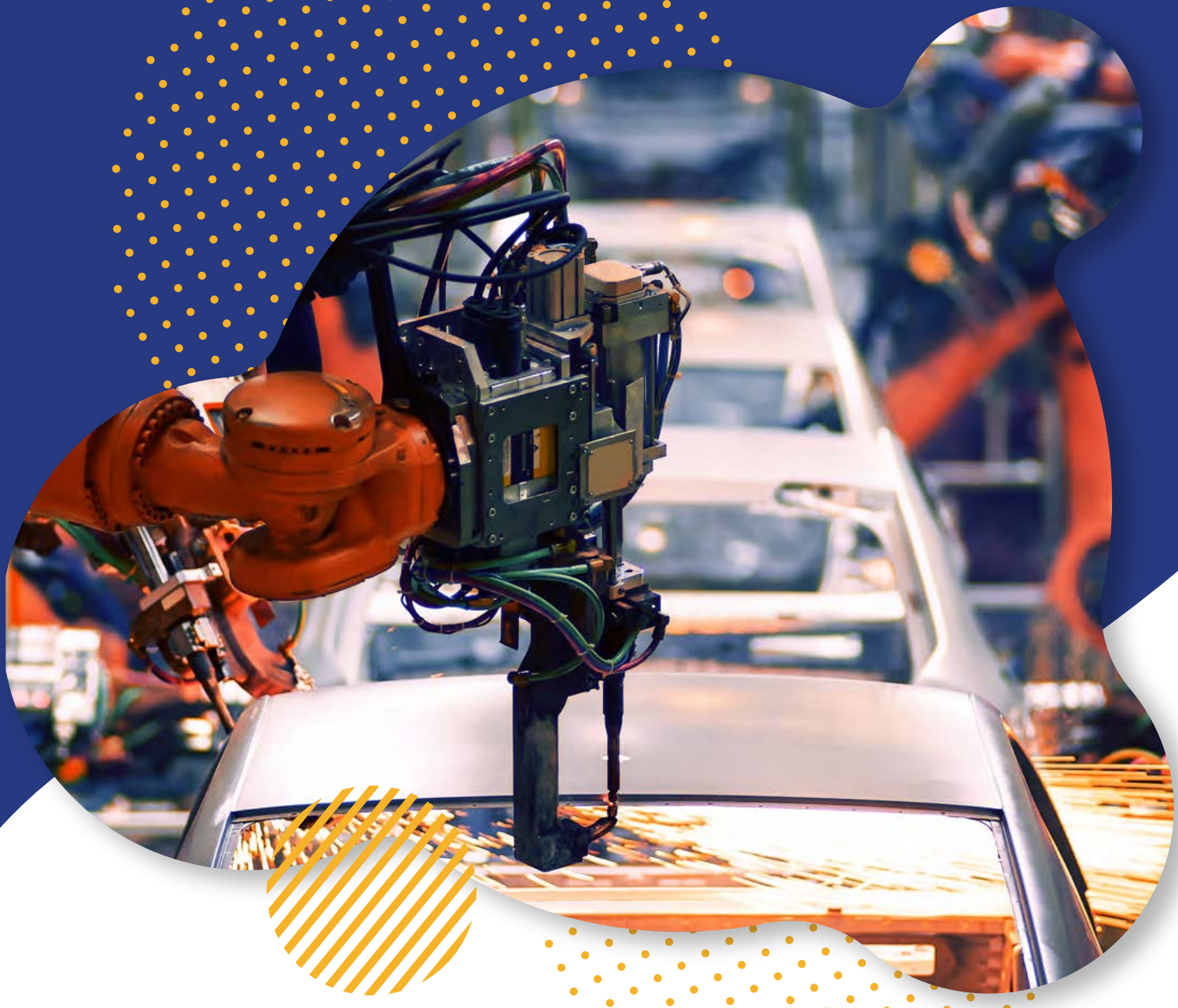

How Robotic Process Automation is changing the face of the Manufacturing Secor?

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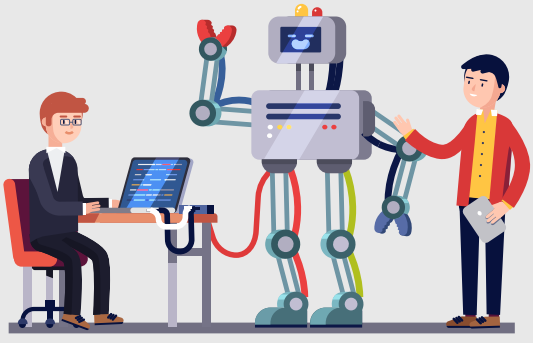
· INTRODUCTION ·

Robotic Process Automation (RPA) has a reputation that precedes it – of being 'dumb' automation that mostly reduces headcount or manual effort. This reputation takes away the essence of what RPA really is – a potent, robust and futuristic solution for industries, spanning healthcare and education to manufacturing and finance; one that will change the way the global workforce performs, while delivering a superior level of operational efficiency.

The RPA landscape can be intimidating for most industries as RPA has come a long way from simply automating workflows in the past, to leveraging Artificial Intelligence (AI) and Machine Learning capabilities. This e-book will explore the possibilities of RPA in manufacturing.

WHAT IS RPA?

- Robotic Process Automation involves configuring a robot, which is actually a computer software, to imitate a repetitive human action within a digital business process. These are virtual robots that can emulate and perform mundane tasks round the clock, and at high volumes. This is where the "auto - mation" perspective comes in, making RPA highly favorable for its cost effectiveness and time-saving abilities. The virtual bots work with great precision, and hence are zero-error generators.



- What makes RPA such a win-win technology is that it blends with the existing infrastructure, causing no harm to the existing systems. Its non-intrusive nature makes it adaptable and scalable, two qualities that growing businesses are constantly on the lookout for.

- Its versatility is RPA's biggest strength. The fact that it can be applied to customer service, say, by automating contact center tasks; human resources, by updating employee information; healthcare, by handling billing; insurance, by dealing with claims; or supply chain management, by tracking shipments, etc., makes RPA one of the most versatile technology to touch human lives.

RPA FOR MANUFACTURERS

- The manufacturing industry has been one of the most receptive to technological innovations. Manufacturers took to physical robots back in 1950s; the most notable earliest robot being the UNIMATE, manufactured by Unimation that was installed by General Motors in its New Jersey plant in 1962.

- However, while these robots have helped streamline the manufacturing assembly line, the industry has struggled to manage its back office operations, which include tasks such as inv entory management, accounting, employee record management, customer communication, and procurement. These labor and time-intensive tasks have been serious pain points for the manufacturing industry, preventing cost-reduction, improvement of operational efficiencies and introduction of innovative business processes. This is the reason why a number of manufacturers are now turning to RPA to streamline their operations and improve the agility of their workflows.

- According to IDC, a global provider of market intelligence, discrete manufacturing will add up to nearly half of all global robotics systems spending in 2019, which is to the tune of $50.2 billion in revenues. This is closely followed by process manufacturing. Dr. Jing Bing Zhang, research director, Worldwide Robotics revealed that across all major markets surveyed by IDC in 2018, industrial robotics continues to top the technology investment priorities of manufacturing organizations.

- Streamlining back-end operations in manufacturing has empowered manufactures like never before, helping them save up to 40% in their operations. Below is a list of back office operations that RPA has simplified, leading to freed up labor, error-free processing, and time and cost savings.

- **Bill of Materials (BOM) –** Bills of Materials is literally the back-bone of product creation in the manufacturing industry. This critical document contains a comprehensive list of raw materials, components, sub-components, and other assets for developing any product. It is an in depth reference document that apprises employees of what to purchase, how to purchase and where to purchase, besides providing detailed instructions on tasks such as how to assemble a product and pack it. BOM is a time and labor-intensive process that is also prone to errors, which can lead to huge monetary losses or shipment delays. RPA steps in here, completely turning around the scope of data accuracy, product development time and ensuring on-time shipping. It takes the pressure off manufacturers, so that their employees can focus on more cognitive tasks.

- **Invoice Processing –** This task requires an employee to cross-check each invoice manually, and ensure there are no discrep-ancies before approving them. The process can eat into multi-ple man hours, but is of little critical value associated with it. RPA helps with scanning invoices automatically, looking out for errors against the purchase order, and authorizing for approval or for human intervention in case of discrepancies. It closes the processing with completing the purchase order.

- **Financial Report Generation –** Financial reporting is one of the most labor-intensive tasks that finance teams across indus-tries endure. Nevertheless, it is an important process that keeps the management, stakeholders and other associated authori-ties in the loop. In the manufacturing industry, finance teams have a number of processes to manage, and financial report generation can eat into many man hours. RPA steps in here by capturing the data, processing the results and disseminating reports to the parties concerned, while subsequently saving the records in the relevant management systems. All these activi-ties are done quickly and error-free, freeing up the finance team to focus on processes of more business value.

- **Inventory Management –** At the crux of supply chain manage-ment lies inventory control, which is vital to how manufacturers run their business. An RPA system facilitates real-time moni-toring of inventory to ensure demand is met even when there is an unanticipated increase. RPA triggers notifications on the status of inventory and reorders products when a set limit is reached. It keeps a close eye on internal workings and points out any bottlenecks that can cause disruptions in the supply chain.

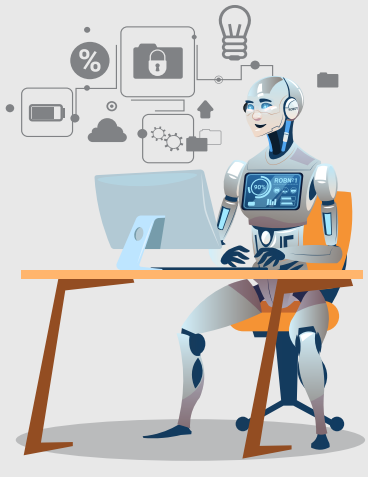
- **Customer Service and Support –** Maintaining a regular back and forth of communication with customers is key to the manu-facturing industry. An RPA system allows customer service representatives to handle multiple queries with a click of a button. A virtual bot can check emails, track shipments and

send updates to customers, as the situation demands, eliminating close to 65% labor effort in the process.

- **Logistics Management –** Manufacturing companies have multiple carriers and fleets of shipment coming in and going out on almost daily basis. To keep track of such vast data is a mammoth responsibility that can lead to human errors and subsequent loss of revenue. With RPA, it becomes much easier to keep track of freight, and the vendors and their insurance details. Tracking shipment, knowing the right date and time of arrival and departure of cargo, shipping charges and other costs, and ancillary reporting makes logistics management a breeze with RPA.

IMPLEMENTATION BENEFITS, CHALLENGES, AND MISCONCEPTIONS

Implementing RPA in a manufacturing company has many benefits:



- 27X7, 365 days working capabilities
- High levels of efficiency
- Ability to accomplish complex tasks without human intervention
- User-friendly, code-free, scalable and customizable
- Zero-error accuracy
- Increased time and cost savings
- Integrated and digitized communication between departments and processes
- Enhanced regulatory compliance
- Significant growth in ROI

- However, no technological implementation is without its share of challenges. One of the biggest challenge is to assure employees that a metal bot is not going to take over their jobs. The term “robot” stirs up anxiety and feelings of job insecurity because people have the misconception that these bots are here to take away jobs, which is far from the truth. Many companies now prefer to call RPA just process automation, affirming that these software bots are implemented to drive efficiency and not steal jobs.

- The steps to employee assurance must begin with honest conversations with employees; something that must be done as early as possible so that they truly understand the benefits of automation and how it may impact their jobs. Upfront communication with the workforce could help with less resistance and more acceptance of the new technology and result in less discontent and more self-discovery. The key is to approach robotic automation from a human perspective.

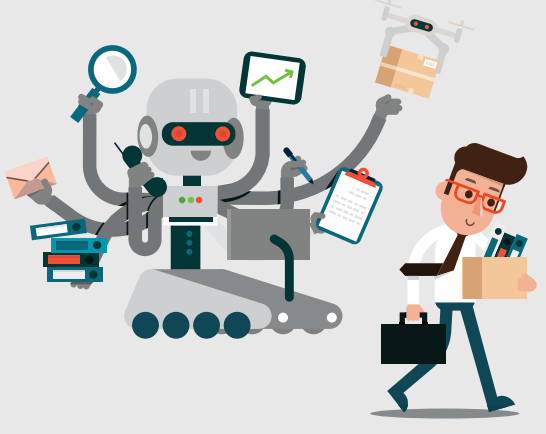
- Another challenge with RPA is jumping in too soon. In a rush to implement RPA into their workings, many organizations don’t plan enough or they plan too big or too small. As a first step it is important to undertake the RPA project based on what an organization’s set-up and current capability is. An industry insider suggests that as a rule of thumb, a process that an organization wishes to automate should be able to accomplish the automation in a month’s time.

FUTURE OF RPA IN MANUFACTURING

- A report from ISG has revealed that 92% of companies are aiming to adopt RPA by 2020 to increase operational efficiencies.

- According to a Robotics Survey conducted by Nurture PR, 88% of CxOs are considering investing in RPA to improve IT security and data compliance. It also revealed that 56% of enterprises are planning to use RPA to free up staff, allowing them to focus on higher value work; while 77% CxOs believe that RPA will drive productivity, through the automation of mundane, transactional tasks. The survey, in many ways, indicated that RPA, Machine Learning (ML) and Natural Language Processing (NLP) together will change the way organizations function and grow.

- While RPA alone has been a boon for the manufacturing industry, it may not be enough in the long term to bring in the next level of business transformation. RPA is great at automating tasks; but with Industry 4.0 being upon us and a sweeping increase in competition within the industry, it is pertinent to eventually have a more holistic approach to optimization and automation. The industry will eventually need improvement strategies that will combine the automation of mundane tasks that RPA achieves, with a technological innovation that can build and support a modern customer-centric enterprise.



· CONCLUSION ·

When RPA combines with NLP, ML and other similar technologies, and holds hands with Artificial Intelligence, we see the creation of Intelligent Process Automation (IPA). IPA improves upon robotic activities, and hence, improves response time, offers quicker processing, breaks down complex interactions, results in fewer operational risks and enhances customer journeys. For now, RPA is clearly making life easier for manufacturers; but soon the industry will need more.

But that's not all. RPA and the growing number of software bots is paving the way for a multitalented workforce, the only kinds that are likely to survive when these bots become more complex. "Learnability" will become the most sought after and critical "talent" among candidates. And this is perhaps the most life-changing way RPA is transforming manufacturing as well as several other industries.

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