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Automating Business Processes to Improve Efficiency Efficient Design of Building Automation Systems

Akaash Dey
Management
Woxsen University

***Abstract*-Back in the day, logistic companies weren't using GPS devices and tracking software to optimize their routes throughout the day. They used to fill out bills on paper, using a finite set of receipt numbers, carrying over to accounting which spent days to a month for completion. More manpower means more delay and more cost as well, and productivity can only be followed by discipline and quality work on a gradual basis(Guerra, L., & Stapleton, L. (2019). How will our capabilities change after adding automation processes in existing businesses that follow traditional methodologies? To improve day to day operations of business using new technologies and automation to increase efficiency, save time and cost.Building and maintaining Automation Performance Index models (to keep track of the performance. We have already recognized some clear opportunities for research process automation: automated sampling, automated survey, and automated visualization of data (through online reporting dashboards or tools). These tools allow researchers to handle much bigger data sets and spend less time creating (or editing) common charts and graphs(Martinho, R., Rijo, R., &Nunes, A. (2015). This helps in quality decision making thus helping businesses to upscale.**

***Keywords*- Automation, Lean, Agile, Artificial Intelligence, Data Analytics, Data Mining Process, Machine Learning, Robotics, Neural Networks and Optimization.**

I.INTRODUCTION

The reason is that our operations in a business environment are like a black box. And as the business grows over time so the functional strategies don't get connected. So if you can look at the different local functional side of the businesses using a lean lens. And identify the lagging areas and improve accordingly. So that the process can start to flow after connecting the dots if there are any gaps and improving them. And theseprocesses can create enhanced value for the organization and if we can do this before the processes so it can create a lot of advantage and age from an earlier stage for the organization. So Lean was started by Toyota they had been using the process of lean. They are into manufacturing and various other services in their organizations worldwide(Bortolotti, T., Romano, P., &Nicoletti, B. (2009, September).

It started in the 1950s and it's not a new concept. Before that also it launched many cars. It transformed the whole Auto industry. With the conveyor belt system before that people will try to go from different places and trying to bring different parts to assemble the car. So this whole thing was wasteful so what Henry Ford did was with the invention of the convertible system Type equation here mechanism(Laurent, P., Chollet, T., & Herzberg, E. (2015). It made the process much smoother and improve productivity significantly with the automation process.

So this is how lean can transform. There is a total of eight processes for the lean. And the first one is overproduction. So it is related to more on the customer side. If you have to produce more than the customer needs so it can create blockages in the operation. So the method is how can we reduce this? That's how lean talks about? Then comes the waiting and if you're in a financial services operations for example in health care(Martinho, R., Rijo, R., &Nunes, A. (2015).

In Health Care and manufacturing, then there is a lot of delays. There is a lot of waste of time in the operations. So in the financial organizations also the value-added and the unknown value-added. Analysis and value-added part and the value-added part only come to a person without the use of lean. Now coming to the inventory, we can have a lot of inventory for example in the financial services or healthcare too many patients keep on waiting. Are in the manufacturing industry where the inventories are labelled and lying down in the warehouses.Trying to eliminate those waste continuously, is a journey for Perfection. That's Lean(Lacity, M. C., & Willcocks, L. P. (2016).

Whereas Six Sigma is based on variation and is about identifying variation and reducing different kinds of variations? Six Sigma maybe a little bit confusing from lean because it uses statistics and some mathematical modelling hypothesis. To establish a relationship between the cause and the effect and it uses a lot of data. And then comes the design thinking which is more human-centric.

Understanding the ecosystem in which the organization exists and the customer exists. What is the customer needs and then after collecting all the data they bring it back to the board and then develop a design which and then products and services which delivers a differentiated experience for the customers and the users this is a human-centred approach to innovation(Venkatraman, N. (1994).

Agile on the other hand uses a lot of lean methodologies when applied to project management,delivering new capabilities in terms of technology. Multidisciplinary teams getting together so agile is an extension application of lean into project management and development. Instead of the traditional waterfall method,the key point to highlight here is that when the organization can solely focus on the customer and the way total weight mainly towards a Customer-Centric. There is going to be enhanced value and Development after using the methodologies and the tool kits(Vishnoi, S. K., Tripathi, A., &Bagga, T. (2019).

So the question arises, why do we need to use lean first and then automatic?However, I mean unless when automation can help us. So if you look at the organization that are using these different types of tools.What else is like a common set of tools but there is one common thing between all the tools that we use for enhancing their business processes like lean Six Sigma, Design Thinking and Agile.

And the main focus is on empathising with customer needs. Hence, if we're using these methodologies and we are only inwardly focused on the organization, then we are losing. Opportunity and more value there. The first part that is lean is continuously based on looking at the waste that is from operations.

BackgroundUnderstanding Lean Automation. According to recent studies, half the automation efforts fail which is a big delta there.

And more than 50% of companies failed to provide any business improvement even after their efforts and push in digital transformation platform. And business objects and goals were also not fulfilled.

Only 22% of digital transformation or automation initiatives were able to deliver what the enterprises started to achieve. Now we can try to see how we address gaps and through the lens of lean and how it can help add and create more value. So the question here is why do organisation, enterprises look at digitisation? The answer is very simple it helps improve customer experience, it helps improve the productivity of employees and the teams, it helps to create more predictable behaviouroutcome, and for all those reasons there is a reduction in operating cost and thus are the benefits of doing automation(Stephen, A., Mule, R., Ndichu, P., Aila, F. O.,Okungu, A. E., Michoki, M. M.,...&Momanyi, G. (2013).

However, a lean lens when brought through automation can help us navigate the change and improve the gaps to a much more predictable outcome and enhance for the customers and the organization.We believe that key technologies that will contribute to the future of the industry can lead to savings of over $ 5 trillion shared between consumers and some equipment industries. It has three features. A factory will be built in the future.

The first is that it works today. You're still modelling a lot, and sometimes when you go into production, you're still testing your design. That is, from the beginning of the product design to the final version(Laurent, P., Chollet, T., & Herzberg, E. (2015).There is a market. The latency is long and can be difficult to reduce with new technologies.

Therefore, a model that simulates an improved tuning system. Much of this is done in the virtual world. The second major feature of the industry of the future is the fact that it enables the integration of humans and machines. For example, today's industrial pipeline machines operate almost entirely without you. Workers using well-known robotic processes can use knobs to allow workers to work with the robot and adjust these tasks accordingly. With more real-time communication and a two-way path running between the business model and the industrial landscape, Ohio can increase real-world control over power and remote control of the entire company, not necessarily the textile industry.

Focus on self-employment and cost-effectiveness for the industry of the future thus many questions are being asked about what this means for jobs, not necessarily labour costs, but where it means and where the focus is in the supply chain. Going forward, the manufacturing and manufacturing industry business models will change drastically in the coming years(Kirchmer, M. (2017).

II. LITERATURE REVIEW

Several processes within a bank have benefited from RPA allowing team members to focus on engaging with clients and growing the bank's internally as well as externally.

Customer service as Banks deals with multiple queries ranging from fraud detection to account inquiries. It becomes difficult for team members to address customer service needs of proprietary RPA’s health and resolve and low priority clearance freeing up the customer service to deal with high priority needs better service and customers and resolving issues requiring human intelligence.
Compliance with so many rules. It becomes an arduous task for banks to comply with each of them RPA's makes this easy accounts payable RPA helps in automating this process and automatically credits the payment to the

vendors account after reconciliation of errors and validations credit card processing with the help of it. Banks are now able to speed up the process of dispatching credit cards. Mortgage processing with RPA Banks can now accelerate the process based on certain rules and algorithms and by clearing the bottlenecks that delay the process(Ribeiro, J., Lima, R., Eckhardt, T., &Paiva, S. (2021).

Fraud detection RPA uses an if-then method to identify potential frauds and flag them to the concerned Department the know your customer process KYC is a critical compliance process in every Bank RPA'S help the bank complete the process in a shorter duration. General ledger banks have to ensure that the general ledger is updated. This is where the RPA comes to the rescue. Report automation RPA helps Banks and preparing reports with accurate data.

The account closure process Banks received several requests to close the accounts every month with RPA's bias can send automated reminders to the customers asking them to furnish the required processes in conclusion with so many advantages of RPA Banks must consider using it and they're functioning areas to enhance customer experience and gain an edge over their competitors(Kanakov, F., & Prokhorov, I. (2020).

The health care industry and RPA how did they support each other out? How can the RPA go obviously to data aggregation all sorts of piled up information.Again healthcare industry everything from hospitals to doctors offices to Universities that do clinical research data, brings it all together, right and easy RPA tell you to aggregate that data right being able to go to all these different systems to get that data transform into. All right and death situation in your data file, so one can see how to automation is process-driven very much(Anagnoste, S. (2017, July).

Imagine Life Sciences companies create transformative human health worldwide by automating the manual processes and integrating multiple data sources. Imagine solving the challenges around price pressure scientific Innovations and new business models to increase speed to market for new products. Imagine a clinical trial that is shortened by months due to faster patient Recruitment and error-free processing of data when life science companies can do the automation process very fast without worries.

You can communicate faster medicines to market, faster and more creative energy focused on what you want here at automation anywhere, we are on a mission to enable you to innovate biotechnology for People worldwide to live longer and healthier lives(Syreyshchikova, N. V., Pimenov, D. Y., Mikolajczyk, T., & Moldovan, L. (2020).

And through the use of the micro Focus. The Ops Solutions customers have typically been able to reduce their operational costs by up to 30%.It has reduced the downtime of their business-critical Services by up to 60%.Dramatically increasing customer satisfaction and those operations teams that are busy doing business as usual activities can spend more than 25 per cent of their time on Innovative projects and activities. So how it achieved.

Customers and users don't care about the infrastructure and all the moving parts. All they know is they want to be able to access and summarise as being delivered but in reality, there are many moving parts that the operations teams need to deal with day in and day out whether it's the internet the way and router devices firewalls and then, of course, the servers and middleware and application components. So all makeup that the service how do we quickly triage and understand where the true root causes to business impact and customer degradation and this is where Ops plays a major role. So let's go and have a look at how this is achieved(Kotorov, R. (2003).

We're looking at the operations for each console. This is where the operations teams are going to spend their day to day leave those optional and of course was from a memory is automatically starting to correlate those on that left-hand side the little icon now because the value can provide to your organization through the use of machine learning.

It would process all of those events from different sources and quickly determine.

What is the true root cause so then the operations teams can work on that one front and fix it as quickly as possible. It was able to remove The Unwanted noise from those operations teams, so they only had to focus on those problems as opposed to looking through and shifting through all of the irrelevant pieces of information making their jobs much more efficient so they can spend more time on those Innovative projects and activities and then we're able to automatically classify and determine the business impact so we can quickly and efficiently notify those key stakeholders (Bousmalis, K., Irpan, A., Wohlhart, P., Bai, Y., Kelcey, M., Kalakrishnan, M., ... &Vanhoucke, V. (2018, May).

Today's ideal workforce blends the right people with the right technology on digital staff take on tasks that are mundane repetitive and prone to error people are free to tackle Big Ideas. Intelligent automation or IAA applies to a wide range of tasks come from the market firms understand the value and potential of is a dream is a wonder. How do we move forward? It can accelerate your eye a journey. IAA follow the approach of user-friendly tools. It's a proven framework create custom. I Solutions with enormous potential. We hope to boost operational efficiency and performance with the right mix of digital

speed and human skill. It's time to revolutionize your operations.

The cloud is enabling businesses to completely reinvent themselves and deliver value in fundamental ways to their end customers and for the companies building on their Cloud maturity. The death of transformation possible is huge a leading fast-moving consumer goods company is tapping into this new wave of cloud-driven Innovation with help from Business Services.

The already Cloud mature company is investing in scalable Global Cloud foundations using Amazon web. Microsoft Azure and a mix of other software and platforms The new digital platform has been created with a cloud-native mindset where the full stack is codified allowing for continuous compliance integration and deployment are also helping the companies securely adopt the DevOps culture which will ultimately increase the agility of its product teams delivering a new generation of operational frequency and should see and competitive edge to speed up the minimum viable product(Mohammad, S. M. (2018).

That's the process for the product teams. For example, if the team has built a unique account vending machine for the organization this allows both the products and developer teams to automatically generate and decommission production-ready environments and continuously bring new ideas to market by deploying security designs and services using infrastructures. A code is to enable the company to automate its infrastructure eliminating error and speeding up the development process. So now when your applications come along the company's different delivery teams can simply tell them the requirements can fire and load them onto the digital platform to deploy the capabilities of this company's next-generation digital platform will enable it to go from idea to development to production up to 90% faster than before and with it's chosen cloud partner this company's transformation Journey will continue for generations to come and enable them to deliver value in fundamentally new ways to the next generations of customers(Melchert, F., Winter, R., &Klesse, M. (2004, August).

To improve and increase the efficiency of automation, it is very important to streamline the flow properly. Then finally the fourth stage is designing effective and efficient automation by the process of analysis. So the lens that we look at here has three socio-economic activities like the from the human focus process or the operation and the technology focus starting with the value focus initially. So from here, we can finally analyse from the customer's point of view through their lens to increase the process of automation. In the lean process, the waste stage is known as the MUDA which is a Japanese term. The reason that we talk about MUDA is basically because of the other two reasons starting with the MUDA, which means the variation (Lamberton, C., Brigo, D., & Hoy, D. (2017).

So in our operation, if they are forecasting gaps, and there are non-uniform processes, which are going. Then it is going to create a stress point and these stress points over time will become overburden which is known as MURI. In terms of overburden, there is overburden in the system and there is overburden in humans. See things that are getting piled up(Stephen, A., Mule, R., Ndichu, P., Aila, F. O., Okungu, A. E., Michoki, M. M., ...&Momanyi, G. (2013). What are the barriers? We are facing that's an opportunity to see how we can improve our processes.To utilize rigorous standardization to reduce the variations.

III. METHODS

For trade flexibility and productivity in operations. So that's the first part of, the system. There has to be a cross-functional team as well, which will be working along the automation process alongside and to fulfil the business requirements there should not only be one technical person but if possible from the operational lens to understand the feasibility.

So the mood of the cross-functional teams work together, creates some more value for the organization as a whole. In terms of the practical solution as well as the best solution. The automation process which is don't pick up the solution which is in somebody's mind. So what is this? Are we just don't pick up a technology and say this is the technology we want to implement. The third part is the selection of the tools and technology that needs to be aligned with the people and the processes that fit the requirements. So these are the processes that are designed to bring value to the customers and this is a culture that should be embraced. This is the right kind of Technical Solutions to enhance the delivery of that, of the whole thing that can be packaged and entitled together. As value so there are two parts when lean automation can be applied.

The first one is the process that needs to be automated. So with the lean mindset when we are looking at the automation process, the first thing that we are going to focus on is reducing waste. And we are also going to focus on the creation of value for the organization and its customer. It is cultural transformation when we are doing a lean mindset and it's a journey. Every organization has its own set of priorities, but this is the way of thinking from a Lean perspective. It can create much more value and collaboration and engagement. So we can understand from one of the famous quotes of Bill Gates"With the efficiency and the second rule that was quoted by him is that automation applied to an inefficient operation will magnify the inefficiency."Over-processing again is time-consuming and is a waste of transportation and the transferring of the product which needs to be manually

transported across places. Also within the operation, we sometimes find that if it does not meet the standards, then that's a problem and then it needs to be checked and move forward accordingly. Excessive motion like the human effort is due required to do something is again a waste.

Earlier Lean used to be of seven ways. There is one more point that is included, that is human intellect. People in the operation who are not properly trained, you know, like not properly trained and or mainly overqualified for the job. Not properly aligned to a task at hand can also create human intellect wastage. So if we look into all these processes with the lens of lean, we can easily find out through the automation part of the process that is exactly creating the waste and should be eliminated and rewarded and better enhancement for productivity and see how we can minimize those before exploding automation for them.

The next step is intelligent automation, so we start with robotic desktop automation, which is more process-driven, then followed by robotic process automation. So as we move to machine learning capabilities, so it becomes more data-driven followed by artificial intelligence, which is increasing the complexities and cost. So the straight-through processing follows from robotic desktop automation to finally artificial intelligence.

Again managing the unstructured data and level of intelligence in the automation process makes the process much more smooth. And with the full level of AI, it gives a high level of straight-through processing think from 80 to 90% even sometimes. So it is not the best to trap of process-driven and are driven. So if we can combine both of them into the result is more enhancing and more productive as well. So without machine learning and Artificial Intelligence if it can do 50 to 60 per cent of the automation with machine learning and AI it can go up to 80 to 90% as well.

That's a hand game of automation if you want to take it to the next level. So, how can we define an intelligent automation system? So in simple language,we can define an artificial language like natural language processing machine learning and computer vision along with the RPA and the videos document capture and the different capabilities of processing you can have. So RPA is like a dumb box and when we inject them with AI systems become smart.

IV. FINDINGS

Being intelligent and they learned from introductions from humans and their decisions. So accuracy and decision-making capabilities also improve with time. So if you want to differentiate or make a segment between the two of them so we can simply say that RPA and document processing is just the doing of the execution. Whereas Artificial Intelligence is about thinking and learning and AI is always data-driven this lead by data and RPA is process-driven. With the RPA we can increase the degree of automation or we can do end-to-end automation.

So coming to the components of the intelligent automation system. So we all know that using RPA the automation of information from Legacy or third-party and other web apps, but it's not sure short fit with if it is there are unstructured information sources, like from documents emails and attachments automation cannot succeed without the digitization in various aspects, so the automation workflow of an intelligent system generally starts from optical character recognition. That is OCR then followed by RPA and then finally again OCR helps with the digitization of paper-based information systems or any form of assets, but its quality issues are hard to ignore.

IDP combines OCR data capture and IML to augment the retrieval understanding and integration of documents required for executing a business process. BPM Stands for Business Process Management. It is a corporate methodology aimed at optimizing business processes in an organization. A process is a series of activities that must be performed by people and systems organized. The way to achieve a specific objective. All organizations are based on processes, but they are not always managed efficiently BPM software known as BPM'S enabled companies to work with this process methodology. Automatically because the process engine integrates all the people devices its resources in all types of technology involved in the processes quit BPMS is intelligent BPM software that offers greater functionality than BPMS.

For example, content management human interaction management analytics business rules connectivity process activity log to BPM consists of five stages known as the process lifecycle. Modelling simulation execution monitoring and optimization Modeling the first stage involves drawing the process diagram using graphical objects and then defining the attributes of these objects for example stipulating which person or system should perform the task. It helps in improving speed and reducing cost which is what most businesses these days are looking to achieve. So if we carefully look at how the lean automation design principles, the first thing would be value. Defining what define value from the length of the costume.

And the second one would be the documenting process. This is what we document all the process like how when where this is all we're all the sequences. What steps need to be triggered what are the decision points in the process? As we Define these decision points very clearly. So in the long run, the automation process becomes much smoother. Once we're done with the documenting process, then we go for the streamlining flow here. We find out how we can identify and minimize waste.

V. DISCUSSIONS

Why automation is the best solution for banks and districts and financial institutions need to process millions of documents and customer data collected from various sources, such as credit cards. This manually created task can take a while, depending on the customer experience. Wherever RPA may be used, such as debt account payments, processes can best be integrated to manage directly through bank and industrial payments.

Using the legacy UI system automatically one can search for data from multiple systems and provide many functions. The RPA robot can read data from documents that have been converted into digital systems and view information on multiple systems. It can be used to thwart transaction fraud by detecting patterns. The annual meeting requires a brief report in a few minutes. The Artificial Intelligence checks the year, the state understood via email and the parameters provide customer statistics.

Let's take a look at how much money the business centre saves by up to 40-60 per cent on integration errors and. What's wrong, a rule-based integration process reduces manual effort to validate and update data from multiple systems. All the Process of RPA did not require changes of importance in most of the lifestyle to use the management of Automation and the maintenance of the RPA.

It hasto be completely different for people and processes around it that's not what we want we want to have it embedded in just like all the other development technology and enable people to use it to make it align with existing CI-CD pipelines and DevOps and so what we did is chronic freedom model that helps us go through the different areas and kind of walkthrough each of those the modelling the versions of the building storing deploying and executing and talk through each of those to make sure that we align it with your current state of the business and where you're looking to go in the future and so here's a graphic that kind of shows some of the options that give people a feel.

But what I mean by that and so a good one is the business logic so how are you authorising and how are you enabling your business analyst to actually participate are you using our guided editors are essentially are online editors to actually define your BPM and your business rules are you going with a more traditional approach where you have primarily technical users working in an idea are you doing it so you're actually auto generating rules based on new documentation and spreadsheets that could in or are you going and actually having decision tables defined in spreadsheets so that it's very easy for your business analysts who work in spreadsheets probably everyday actually contribute business rules and so there's a lot of different options and how they can get involved and it's good to kind of walk through and think about what's the easiest and aligning that to your current process and your future direction of your company rest on those options kind of go through more of the technical side of it and of looking to align it from a version of building storage with your existing CI CD pipeline so if you're using things like Jenkins today if you're using like a maven Nexus artifactory we want to use those same technology.

So that we're not setting up a completely parallel infrastructure you're having to retrain and re teach people how to do this when today you're already using something and so we look to align with those and then the final ones are really talking about how you're going to execute it so talking about thinking do we really need things to be stateful do we need things to be short lived versus long live driving at is it really business rules is it is a business logic is it business processes and what is it you're really trying to do so that we can make sure that we keep things simple in design with the minimum viable thing that we need and start from there and not over engineer things every business has some sort of business logic business processes and so this is just a very small sector of use cases that we see and we work with a lot of the most common ones that we see really across verticals and across industries is anything to do with kind of compliance and regulation and automatic thought that's probably business rules but well there a lot about order management anything that kind of has a natural business processes everything from on boarding order management claims processing where you kind of have that sense of development.

Then finally comes the simulation stage and it involves testing. The modelled process before goes into production one common method is to run the process using probability values to highlight bottlenecks or errors in the process flow.

1. Execution: This stage involves running the process in the real working environment monitoring this involves analysing the data produced and collected in the execution phase. It also includes statistical Graphics such as bands and gay. Be eyes optimization in this last stage. The aim is to make the necessary changes to improve process time costs and use of resources decisions are made based on the analysis conducted during the monitoring stage.

RPA is the software technology that performs transactional activities and its applications in the way a user what? All RPA applications have befallen structure a digital input of structured data and a process logic based on rules conditions loops taken on the data received by a software robot. Has the great advantage of being much faster than a human when carrying out tasks.

And they don't get sick don't take vacations and we're 24 hours a day 7 days a week can be replicated for greater

speed can work from any location minimize risks as they are less prone to errors the possibilities with RPA are practically endless since they can address any sequence, for example, it can open email login applications three databases access files affording populations fill out forms Etc. Therefore the scope/technology is any department or sector that uses office and its applications but not everything is bad for the worker now employees can dedicate their time, to generating added value for the company focusing on problem-solving managing exceptions developing strategy creative improvements on RPA is becoming established as another technology to help companies achieve a successful digital transformation and remain competitive in the market.

2. So the question arises why RPA, and not API?
Processes in it like the code selling proposition is that you can do it in a fraction of time. For that matter the comprehensive integration that can be done like why are people versus API so we must have seen in Banks or in core banking applications that? The humans are there and they are sitting between two desktops and they're sharing information from one system to another. The humans are doing The Last Mile integration. That's the bridge between the Legacy system and the digital business process, thus basically our RPA functions is a key enabler to last-mile integration. So from Enterprise objectives, what are is it for the RPA? The reputable and rules-based processes. The steps can be followed from customer experience to time value cost savings then Legacy integration and digital transformation and finally STP. It involves high volume transactions. The workflow is also high. There are multiple systems or dual data entry is possible through RPA, which is also very fast the searching the collation and the information updates can be very smooth and frequent daily. The data matching the comparison the analysis can also be done on a wide scale which is not possible. In other ways, simple decisions handled via rules engines are various kinds of algorithms. This is not AI or human intelligence kind of decision making. Sometimes the Legacy applications are too critical. DevOps and micro-services Break the monolith and do the re-architecture. So it does repeat that last mile integration?

VI. CONCLUSION

So is it really just a subset of BPM suite in Virtual Reality play consists of business rules management so that's essentially your traditional rules writing business rules business resource planning that's essentially a newer product to the redhead suite known in the community is off the planner really focused on solving resource constraint problems usually utilising rules using certain algorithms that we have defined in the tool for kind of going at different problems like travelling salesman and having when the permutations are just blowing up how do we create efficient algorithms optimise that and then you have complex event processing which is really dealing with giant streams of data and how do we reason about them especially from a temporal standpoint and so if I have streams and streams of say GPS data and I want to look at the last 10 readings from a certain say train or car.

I want to essentially say where I think it's at after the last 10 second readings that I've gotten an what is my level of confidence so how much has there been fluctuation and then the last piece of BPM suite includes the business process management portion and so that's really your traditional kind of BPM and also what we're driving it now case management and so there's that's kind of the core of our technology and what I like to think of getting us to the third stage they automated stage from there then we look to start up levelling that So what we really want to drive at the end of the day is once we had that foundation we've align kind of with CI-CD and in the DevOps approach how can we take your applications and not just make them automated you know what's continuous integration using containers now we have everything automated that's cool how do we drive it towards really being intelligent how can we make it.

So it can evolve itself how can we make sure we're really driving the concept of continuous improvement and so concepts like data analytics, data mining process, machine learning robotics, neural networks and optimization are a lot of the things that once you get to the kind of that third stage that's where you really get the whole lot of the value and that's really like the end goal that's kind of the dream for most organisations in some organisations do start to are starting to dabble in these areas from the companies we work with not very many have gotten far along this road but it's where we see the space going in the future and we're definitely trying to strive towards that.

Thus, when we move to RPA, which is a rules-driven structure process.An advanced AI-powered platform better empowers managers to better Empower agents to better connect with customers anytime anywhere through any device finding solutions faster, even before the customer knows there's an issue using the advanced algorithm of productivity plus efficiency times infinity with that s was more productive agents more efficient costs more satisfied customers on a platform that unlocks legacy customer data aligning service sales and marketing with a 360-degree view of each customer. So everyone is in the know knowing more about the customer than the customer may know which the customer success is good to know a platform that It scales with you providing customers with the consistent convenient Omni-channel experience across every channel social web, texts, emails, calls products self-service portals and communities bad new thing that we're told is so hot right now because like your customers you're able to quickly adapt to change keeping your business agile to your customer.

This leads plus it connects your entire mobile workforce and field agents are in the loop, even when they're driving the loop. It can also integrate with any back-end system and customize any service process with low code tools like lightning and process builder and you can quickly plug in thousands of trust and pre-built services on the Salesforce app exchange all while receiving the latest tools and innovations three times a year built on the trusted and secure salesforce platform to help give your agents and customers happier moments on every step and every day.

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