The edge

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quarterly

Business Uninterrupted

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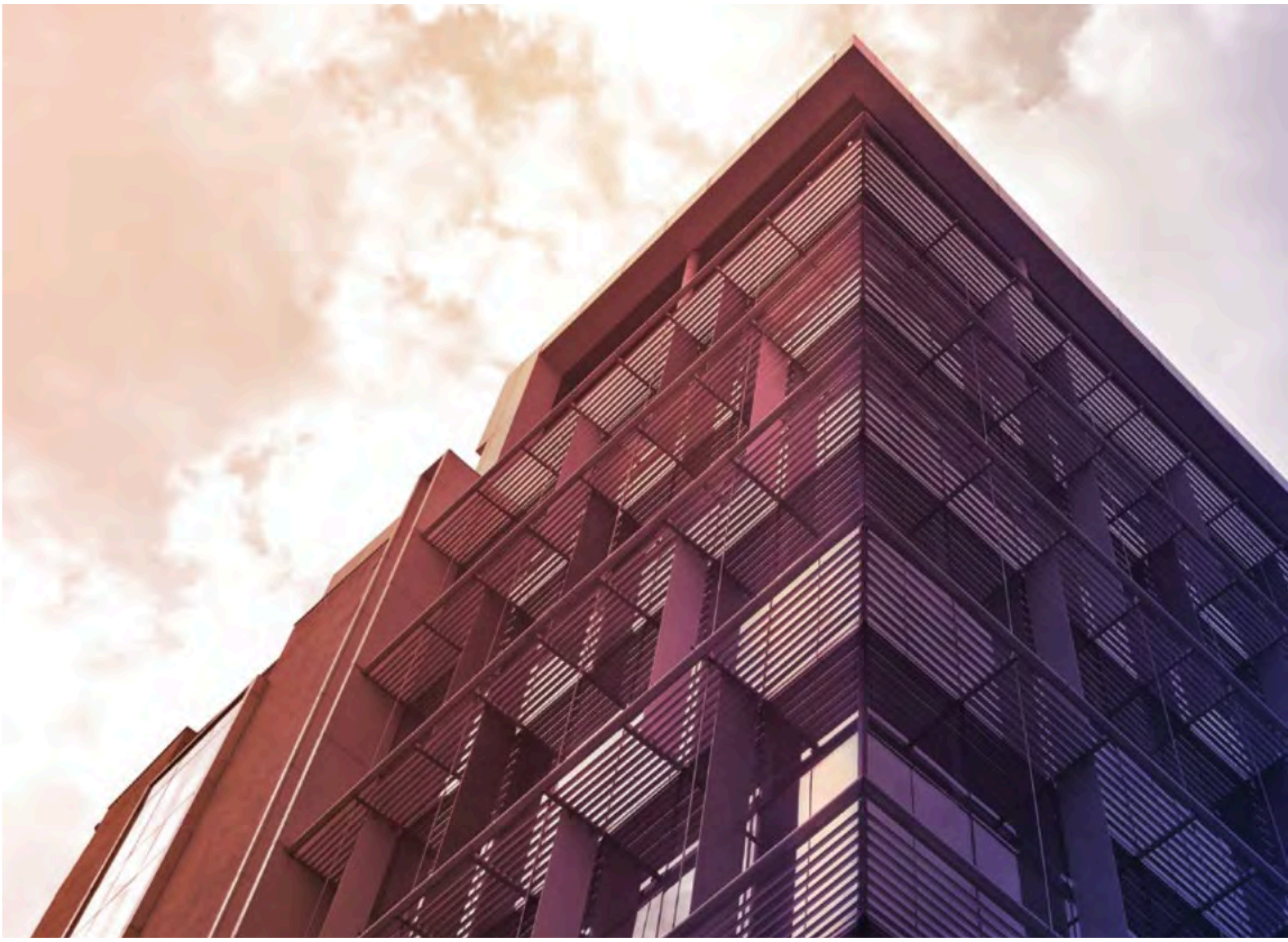

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About EdgeVerve

EdgeVerve Systems Limited, a wholly owned subsidiary of Infosys, is a global leader in AI and Automation, assisting clients thrive in their digital transformation journey. Our mission is to create a world where our technology augments human intelligence and creates possibilities for enterprises to thrive. Our comprehensive product portfolio across AI (Infosys Nia), Automation (AssistEdge) and AI enabled Business Applications (TradeEdge, FinXEdge, ProcureEdge) helps businesses develop deeper connections with stakeholders, power continuous innovation and accelerate growth in the digital world. Today EdgeVerve's products are used by global corporations across financial services, insurance, retail, consumer & packaged goods, life sciences, manufacturing telecom and utilities.

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Business Uninterrupted

The writing is clearly on the wall; business leaders are counting on more than mere luck. They need to move past the halcyon days and make a serious bid to keep the business uninterrupted, rain or shine. For the first time in history, we have witnessed a pandemic that's disrupted livelihood and economies across the globe. In today's innovation-focused digital age, scales are tipping in favour of resilient, relentless, and robust enterprises. Business leaders are connecting the dots, showing far greater interest in Automation and AI technologies to keep the ball rolling.

This edition of **The Edge Quarterly** focuses on how 'Business Uninterrupted' is the game plan of future enterprises as they build new business models, create crisis-intervention strategies, and adapt to the new normal.

The Edge Quarterly was conceived to share practical leadership ideas and best practices with enterprise leaders. We hope that you will like the articles and share ideas, thoughts, and comments. You can also view the online version of the magazine for access to other cutting-edge white papers in addition to blogs on AI and Automation at **edgeverve.com/the-edge-quarterly**

To feature your enterprise story or transformation journey in our next edition, please write to us at **contact@edgeverve.com**

The Editorial Team

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September 2020

AI in Mobile

The Possibilities Ahead

Professor Anindya Ghose
Heinz Riehl Chair Professor of Business, Professor of Technology, Operations, and Statistics, NYU Stern School, Professor of Marketing, NYU Stern School & Director of Masters in Business Analytics, NYU Stern.

Summary

An average individual looks at his/her phone for more than 2.5 hours and makes about 35,000 decisions in a single day.[i] Smartphones have led to the emergence of new consumer behavior, turning the spotlight on Artificial Intelligence.

With companies aggressively pursuing the benefits of an AI-driven future, maximizing the power of AI from our mobile phones is predicted to increase dramatically. AI is making great inroads into our lives, from virtual assistants like Siri and Alexa to voice driven Apps to intelligent camera, the possibilities are hard to ignore. Next-generation mobile experiences hold great promise for both brands and consumers.

In an innovation-focused digital age, Machine Learning algorithms are more than a fad; they serve as a catalyst for creating meaningful customer experiences.

Prashant Vaishnav, AVP & Senior Director, Sales, EdgeVerve, discussed the Future of AI in mobile technology with Professor Anindya Ghose.

01. PRASHANT VAISHNAV

What does AI in a mobile phone context exactly mean?

ANINDYA GHOSE

I think the best way to answer that question would be first to explore what an AI algorithm does, and then we can situate it in the mobile context. Whether it's a supervised or unsupervised Machine Learning algorithm, an AI algorithm is essentially one that is trying to best imitate or mimic human behavior. So, the fundamental property in the AI algorithm is really a data-hungry algorithm, in the sense that the more data you feed into it, the better it's able to learn, set up, improvise, adapt, and imitate human behavior. So now, how does this all fit in the mobile context?

Mobile phones, are now unequivocally considered the single biggest source of consumer behavior data. We are logging in 150 times on an average on our phone; in other words, we are spending about five to six hours every day on the phone, and this is just pre-COVID levels; post-COVID, it's even higher. Every interaction we have with our phone, whether it's a click or a slide or any other interaction with the device, gets captured by different sorts of data providers and companies. And what that interaction is creating is this massive goldmine of data that is incredibly useful for various brands, marketers, advertisers, and companies to understand better what the user or consumer is really like. The better they understand these users, the more they can do something about reciprocity-based interaction.

Whether it's in the form of a curated or targeted ad or a highly personalized pricing discount, various economic incentives can be aligned once they delve deeper into the data. That's the big picture here, how can AI in a mobile form be used effectively to understand the specific user better and then act upon that data.

02. PRASHANT VAISHNAV

How has consumer behavior changed with respect to mobile consumptiom? What is the true influence mobile wields over consumers?

ANINDYA GHOSE

So, this is a topic that deeply interests me. A couple of years back, I wrote a book on this topic called TAP: Unlocking the Mobile Economy. It got a lot of attention all over the world primarily because we were able to produce several case studies, from both my consulting work and academic research, that showcase the various effects mobile phones can have on consumers. In summary, what you found is that **nine forces are shaping the mobile economy by directly shaping consumer behavior**.

> Perhaps the most well-known of these is location, which means once companies know a consumer's location, they're able to understand better, or at least they're able to infer the intent of the consumer and potentially know what's on their mind, including immediate interest of the consumer and what they might be looking for. Beyond that, I also identified eight other forces that can be tapped and leveraged by brands to understand consumer behavior. For instance, this includes the context, time of the day, the weather in real-time, customer's walking or traveling trajectory, the social dynamics, and discovering customers within real-time. We have these nine forces that are shaping $3 trillion economy. And here's the interesting part, currently, this is only 4.2% of the world's GDP, and that's going to increase dramatically over the next few years, which means that there's plenty of opportunity for monetizing that behavior.

Going back to the first part of the question, what has fundamentally changed, is that consumers are even more deeply embedded on their smartphones. Smartphone has become sort of a remote control of their life. Every meaningful aspect of their life has been influenced by an app or some other feature of the phone. And because we're spending way more time on the phone, we are generating lots of data, which is now available to train the algorithms to better understand what this person is thinking.

03. PRASHANT VAISHNAV

AI and smartphones are coming together real fast. Are businesses ready for it?

ANINDYA GHOSE

I would say the fascinating thing about this is that we've had the opportunity to work very closely with a large number of different companies across countries. Apart from working in the US, I have traveled to Europe, South Korea, and China.

> One of the things that we've learned over time is that at the global level, the B2C sector tends to be about three to five years ahead of the B2B sector when it comes to adopting any new technology, especially when it's about interacting with consumers. That has always been the trend, and it's possibly going to continue. However, within the B2C world, there are differences where there are some leaders, and there are some laggards.

Certain industries lead this frontier; if I had to rank the top three, I would say that they are retail/E-commerce, travel (hospitality), and media. In my view, those would be the dominant ones, but there are also others catching up, like retail banking. We've seen some interesting examples in the CPG world. It is only a matter of time before we see more and more influx of these companies adopting AI-based solutions for the mobile economy.

04. PRASHANT VAISHNAV

Continuing the above perspectives, what are the lucrative business opportunities that have opened up? And which industries stand to benefit the most out of this data?

ANINDYA GHOSE

One of the most fascinating use cases we worked on was for one of the largest shopping malls in Asia. This was a few years back when we came up with the idea of trajectory-based mobile targeting, which quickly became a favorite for many brands. Let's say somebody is standing in front of Starbucks and, the Starbucks app might send them an offer about a 20% discount or a 'buy one, get one free' message. Coffee is a relatively inexpensive product, right? For a couple of bucks, you can get coffee. Let's pick a more expensive product like an Apple product or an electronic device. Now consider a shopping mall with an Apple store and its competitor stores like Samsung, Xiaomi, and Huawei. Now, if you're only using location-based targeting, then a customer who's standing in front of an Apple store is going to generate some false positives. In other words, I might be standing in front of an Apple store, but that's not because I have an interest in Apple products, but it's because my friend decided that we would meet in front of the Apple store. And when the two of us converge, we'll go and grab a coffee.

In this case, the Apple store was simply a landmark for two individuals to meet in person. That's an example of a false positive because neither consumer was interested in any Apple products. That's where location-based targeting fails. We proposed to the shopping mall that instead of using just real-time location, we would use the previous 20-30 mins trajectory of each customer within the shopping mall to examine the other stores they visited before arriving at any spot. They will then be able to feed that data into an AI algorithm and recommend certain products.

> Imagine that before I came to the Apple store, I first went to the Google pixel store and then Samsung, and Huawei store, and finally, I visit the Apple store. If the mall knows my trajectory or the proceeding for an hour or 20 minutes, that's a lot more informative than merely using a user's location data. The mall now knows that the user is really interested in buying something in the electronic products category, and that's why he/she is going to four different stores in the same category, especially smartphones.

So that's what we proposed. And it was a spectacular success.

We were able to essentially use the trajectory data of several hundred thousand customers over several weeks in these malls and propose this first-of-its-kind recommender system. Recommender systems are widely used in the online world like Netflix, Amazon, and Spotify. We were the first to build this in the offline world where we said, people who go to the Samsung, Google, and Huawei store are interested in a specific product category. Therefore, we should offer them a personalized discount from these categories only from a competing store like Apple.

For example, if a person purchases/searches a book on Amazon, the algorithm predicts the person's next purchase and recommends products based on it. Netflix, too, is powered by AI algorithms, helping personalize customer experiences. We were the first to contextualize and execute this in the offline world.

In hindsight, I think there were many pitfalls along the way. It wasn't a smooth journey, but we learned through our failures. But once we executed that, we saw spectacular success since there's a lot more data that can be tapped from the customer's prior trajectory. Since then, the algorithms have been widely used in several other environments. We have also been working with airports to map the trajectory of transit passengers when they go from one duty-free store to another and even within the store. It's exciting to see our methods and algorithms having such a wide applicability.

05. PRASHANT VAISHNAV

The data is everywhere, the telcos, smartphone brands, and a host of mobile apps hold a part of the data across the customer journey. How can brands leverage the connected insights from dispersed data sets?

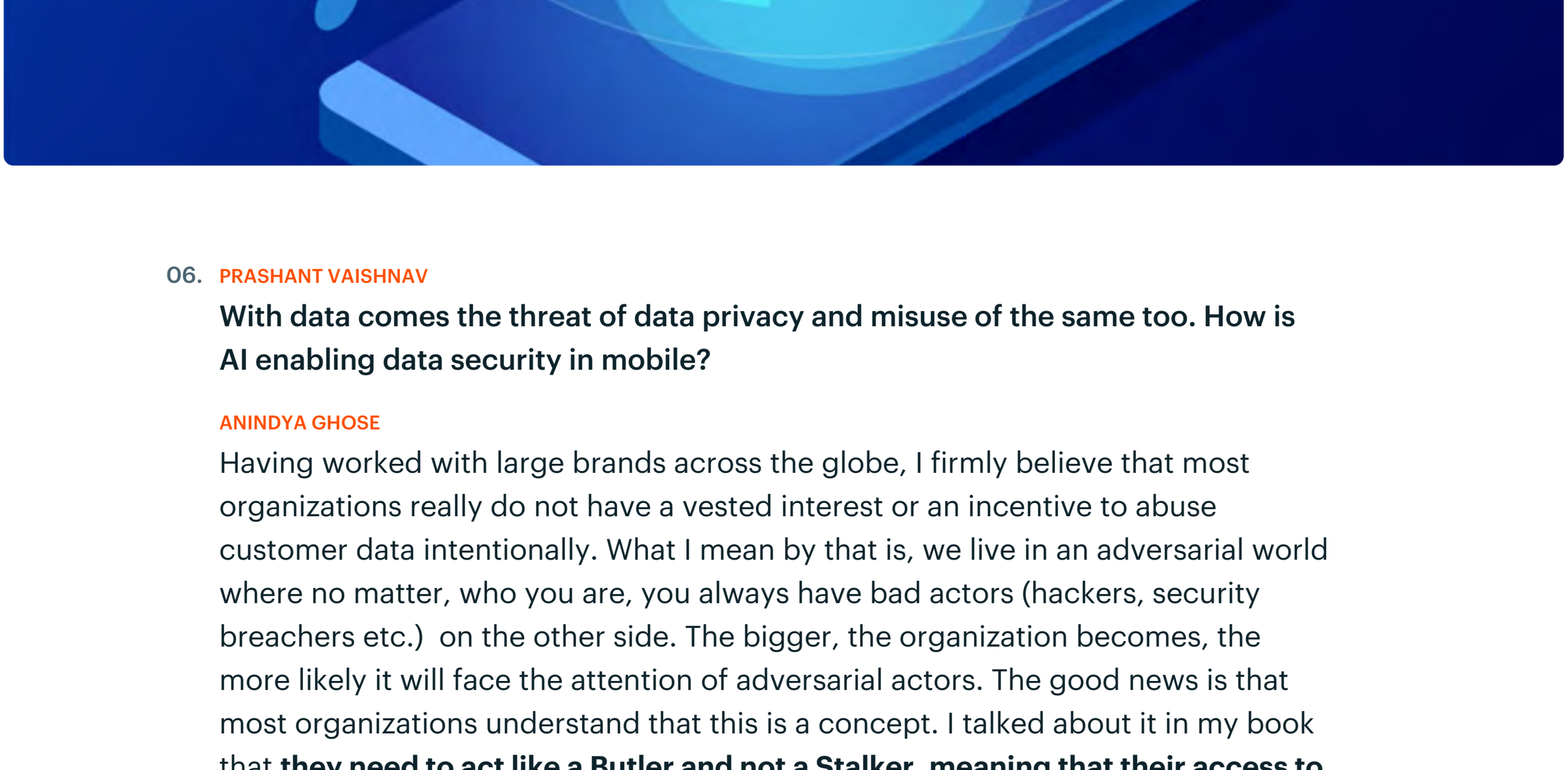
ANINDYA GHOSE

Over the last two decades, I've worked with a bunch of telecom companies in precisely monetizing this sort of data. Some of the earlier work was with South Korea Telecom, China mobile, and Korea Telecom. Then we worked with Telefonica in Germany and then of late I have consulted for Verizon here in the US. So, to take a step back, while there is this thinking that the digital platforms are the only source of very rich consumer data, my own experience suggests that the telecom companies and retailers, in many cases, may often have even richer data than the digital platforms. It turns out that in many cases, the telecom companies and retailers have far better data than what just a digital platform will have. That's primarily because they can leverage every single interaction that the consumer has with the phone and through some strategic mergers and acquisitions can often stitch the data across silos.

I'll give you a precise example. About four years back, I was involved as an expert witness in a large litigation involving the merger acquisition between a telecom provider and a major tech firm. Specifically, this was the lawsuit involving the acquisition of AOL by Verizon. During this litigation process, I understood how valuable their data was and how rich and granular it was.

Advertisers today have many choices among telecom companies, broadcast TV and non-linear TV providers, social network platforms, digital news media sites and retailer media networks to use consumer-level data for targeted advertising. Aside from these, you have isolated pockets of data from media agencies who are buying data brokers and from the consulting companies now essentially transforming them into the large media agencies.

There are a lot of different data sources that a brand can tap into for advertising. This means that the advertisers have a lot of choices with whom they want to collaborate with. I think it's going to be really exciting. In the next five years or so, you're going to see more and more disruption happening in this space and more companies having access to similar consumer data. So, there's going to be more competition in this space.



06. PRASHANT VAISHNAV

With data comes the threat of data privacy and misuse of the same too. How is AI enabling data security in mobile?

ANINDYA GHOSE

Having worked with large brands across the globe, I firmly believe that most organizations really do not have a vested interest or an incentive to abuse customer data intentionally. What I mean by that is, we live in an adversarial world where no matter, who you are, you always have bad actors (hackers, security breachers etc.) on the other side. The bigger, the organization becomes, the more likely it will face the attention of adversarial actors. The good news is that most organizations understand that this is a concept. I talked about it in my book that **they need to act like a Butler and not a Stalker, meaning that their access to your data will give them unprecedented opportunities to get to know you. However, they need to act like your concierge** similar to the one in a hotel. They should not make the mistake of acting like a stalker because there's a very thin line dividing what is cool vs. what is creepy.

I've been working on monetizing location data; I've also been very interested in using Machine Learning and AI to build algorithms to protect our data. The intent is to make it a win-win for both sides. One of our most recent research projects got awarded in a globally recognized conference last December in Germany. We were able to build a method that for the first time showed how companies can use less data and yet get higher ROI.

We showed that for a given individual using our Machine Learning algorithms, you can use, let's say 20% less data, and yet get 10% more effectiveness for your offers, ads and, coupons. We're now planning to patent those methods and algorithms, and then eventually we'll commercialize it, and hopefully, that'll get attention in the market. The good news is, it's possible for AI to become your butler and concierge and not a stalker.

07. PRASHANT VAISHNAV

What are the other typical challenges and roadblocks that could slow down the Mobile AI disruption?

ANINDYA GHOSE

In the present, the answer to that would vary based on which geography or geographical location you're in. Having worked with companies in Asia, Europe and the Americas, and having tried to understand consumer behavior, it's evident that there are major differences across geographies.

An example of this is when it comes to consumers adopting new technologies or new features, or new phenomena. The one country that's always ahead of the curve is China. Customers in China are more adaptable or flexible when it comes to giving a new product or any service a try without overtly being concerned about the outcome or what's happening with their data. It's an interesting feature of the digital economy there because of the fact that customers are willing to quickly adopt new phenomena, it also creates a positive environment for entrepreneurs to generate start-ups in order to monetize that phenomena. After all, they know that they'll have a strong customer base that they can monetize and can tap into.

The converse is also true in Europe, where, despite having pockets of excellence in AI, we do not see as many tech starts up emerging. For instance, consider Sweden, or parts of France, where there's a lot of AI expertise. However, they are unable to make any breakthroughs in monetizing this confluence of AI and mobile economy because of strict regulatory constraints from the European Commission and associated regulators. Outside of the likes of Spotify, Zalando, and ASOS, we are not going to find many tech behemoths that have come out of Europe, in the last 30-40 years. Conversely, if you look at China, US, S. Korea, or even Israel, you see a number of fascinating examples of tech entrepreneurship.

> One set of challenges will likely come from the regulators. The extent to which regulators will impose constraints on what companies can do with AI, algorithms and data will influence how well consumers will perceive it and how companies will monetize it.

I think India is very much in the middle. We have not seen too restrictive constraints from regulators in India. They have stepped in occasionally, but they haven't imposed the kind of regulations that handicap companies, like the European Commission. For instance, GDPR, in my opinion, is really problematic because it imposes constraints on what companies can do, and what is technically feasible, and one can see the effects of that sort of regulation. So, it ends up having exactly the same effects that the regulators did not want, and this has happened largely due to the imposition of complex constraints on what companies can do with consumer data.

The idea of bringing regulators and companies on the same table to have a common understanding and etch out a sustainable and feasible AI strategy, is going to be the biggest challenge in the coming years in the world of AI. In this respect, India needs to rapidly formulate a concrete AI strategy in order to compete with China and USA.

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September 2020

Reinventing the Thoroughbred

How Openreach is Driving Customer-centric Digital Transformation to Revolutionise Its Operations

Olly Kunc
Managing Director for Service Delivery, Openreach

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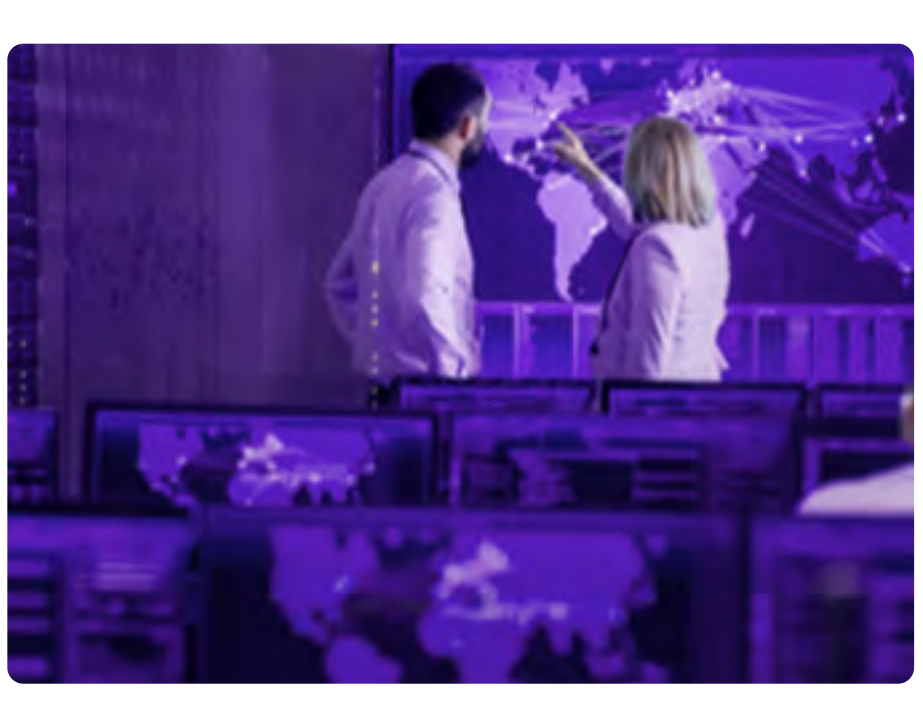


Summary

The past few months have seen the coronavirus pandemic consume our lives and our attention. Apart from a staggering impact on the economy, health, and safety, this crisis has also driven businesses to reconsider how they approach customer experience design and delivery.

Read this article to hear how **OpenReach** has combined the smart use of intelligent technologies with contextual and highly-specific business strategies to weather the storm and harness an opportunity for a comprehensive transformation exercise.

Transformation at Scale and for Scale

Openreach is one of the largest communication companies in the world. A wholly-owned subsidiary of the BT Group, Openreach maintains, provides, and manages the UK's network system, helping businesses both large and small, residences, and individuals connect digitally. It also supports the operations of the 640+ communications providers who supply phone, broadband, and ethernet services to the entire country.

The company has now begun the exercise of extending and upgrading its infrastructure to deliver faster and more reliable broadband with increased capacity, including a new full-fibre network. Our plans to provide ultra-reliable and gigabit-capable FTTP broadband to over three million homes and businesses in the UK's hardest to serve communities will accelerate the UK's post-COVID recovery. These efforts are part of a staggering £12 billion investment that sees us build 'Full Fibre' infrastructure to no fewer than 20 million premises in a development that will deliver substantial benefits for rural and urban communities, supported by the appropriate regulatory and political conditions. An exercise of this magnitude naturally requires diligence, care, and precision.

Our competition, smaller network providers such as cable and new fibre builders, often has the advantage of speed, agility, and significant investments with none of the legacy issues that Openreach faces. However, Openreach has the experience, knowledge, and strong credibility in building and running networks.

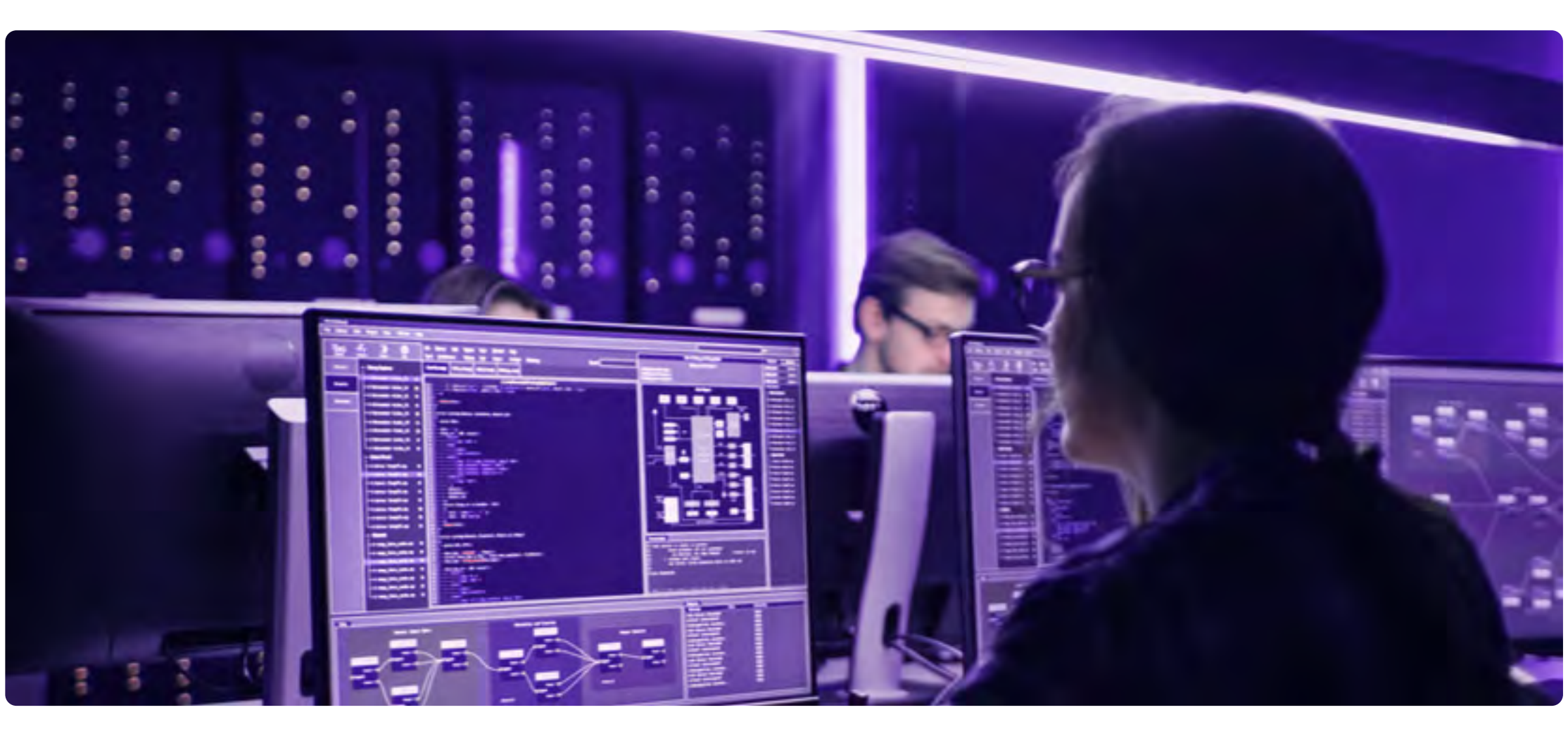
> Our challenge is to leverage all this experience while not getting bogged down in some of the legacy issues – and that's where technology, used right, can achieve the best of both worlds for us.

Openreach uses technology primarily to drive better customer service for a lower cost – so anything that can take the waste out of processes, simplify workflows, or intervene on jobs before they go wrong merits an investment. Additionally, since the company works on a complex legacy system stack that presents considerable agility challenges, it is increasingly using technologies that can either over-ride, ignore, or connect to the core system instead of an expensive and cumbersome rip-and-replace. Some examples include better apps for the field engineers, cloud-based data analytics, and predictive algorithms, alongside versatile RPA (Robotic Process Automation)-driven applications. **We are looking for low cost, practical solutions that don't require wholesale system change**. In the future, as the company seeks to fully fibre the UK, it has an opportunity to invest in a new way of working so that its fibre legacy is more modern and slick.

Staying Connected. Staying Strong. [i]

As an institution of national strategic importance, Openreach has played a vital role during the crisis, ensuring that the UK stays connected to continue to function despite the several limitations imposed by the current situation.

Safety remains a top priority, and we have worked with our Communications Provider (CP) customers to mitigate the impact of the essential Government restrictions on service delivery. Our engineers have been given 'key worker' status to continue to focus on the repair and maintenance of services that support critical national infrastructure, essential public services, and customers at risk. During the height of the lockdown engineers did not enter customer residences, with clearly specified exceptions where required. We have had to make several other critical decisions at speed, and the resulting output has meant that we have achieved our goals and more in a way we didn't know could be done previously. With demand fluctuations necessitating quick shifts in human resource allocation, we have dynamically managed our workforce to match requirements. We also moved to a 100% work from home environment in just a week, managing our engineers and communication through Workplace by Facebook. To put things in perspective, we pretty much changed all of our processes to be COVID-ready in a matter of months.



Using Bleeding-edge Technology to Reinvent Operations

COVID-19 has proven to be an enormous challenge, especially for an organisation reliant on minimal disruptions and a highly engaged engineering workforce. From the outset, we saw this challenge as an opportunity to revolutionise a legacy operational business with new and emerging technologies. Technology and innovation have had a crucial role to play in this regard.

> When we began plotting our automation-led transformation journey, it was clear that any technology intervention would need to augment and assist our highly experienced engineers' work. By harnessing the synergy between our vastly experienced engineers with their decades of experience and modern technology, we believed that Openreach could generate exponential improvements across our service lines.

With this goal in mind, in partnership with EdgeVerve, we have deployed RPA solutions to add flexibility to our existing system stack, ensure business continuity, and react to this novel and unprecedented situation. In addition to eliminating the need to add a high number of temporary staff, RPA has also helped Openreach guarantee its engineers' safety and efficiency, allowing work to continue smoothly while minimising risk.

With businesses increasingly turning to technology-driven solutions to maintain service levels, it is no surprise that 56% of respondents in an ongoing EdgeVerve and SSON [ii] survey see process automation as an essential addition to their operations model. Process automation is our preferred solution for efficiency and accuracy at Openreach. This has been helped by our already robust infrastructure and enduring partnership with EdgeVerve that has been in place for over two years. During this time, we have automated over 50 processes - around one every fortnight. As such, Openreach has an established RPA capability with technical expertise, administrative experience, and a developer team capable of building automation within the Openreach system stack.

With the continued support of EdgeVerve developers, we use AssistEdge to build all RPA solutions. Let's take a detailed look at how Openreach uses RPA and other cutting-edge technologies to future-proof its operations.

Innovating for Resilience

RPA has helped us address COVID-19 disruptions through two custom bots: wicketkeeper robots and the at-risk customer robot. For the uninitiated, in cricket, a wicketkeeper is a player who stands behind a batsman to gather any missed or left balls. Similarly, our wicketkeeper robots catch tasks that an engineer can't complete because the customer or a member of the customer's household shows COVID-19 symptoms. If an engineer needs to visit such a home, they can return the task with a reason code that our wicketkeeper robot 'catches', resultingin the job being postponed for 21 days. After 21 days the robot will release the job for re-allocation. Over 4000 transactions have been processed by the wicketkeeper robot with a peak of usage coinciding with the peak in infection rate. This robot kept our engineers safe without the need to stand up a desk team.

The at-risk customer robot for CP customers is a superb example of standing up RPA quickly, especially for simple processes. The at-risk customer robot helps Openreach identify and prioritise vulnerable people who are shielding and have totally lost their telephone / broadband service. It works by allowing CPs to flag vulnerable customers to Openreach using a keyword in the notes field when they place an order or fault. The robot then trawls through the notes for the keyword and highlights these tasks to the task dispatch system which will then prioritise the tasks and notify the engineer by SMS that they are visiting a customer who is shielding. The second phase of the bot's implementation will expedite the appointment on any such orders to drive prompt resolutions.

> Assistive automation has also been vital for reducing time to competence and improving average handling time on calls from engineers needing help from our desk teams. This proved vital to maintaining business continuity whilst migrating our desk based teams to work from home.

Helpfully, when it comes to assistive automation, our EdgeVerve RPA is integrated with EdgeVerve's SIDE application, and overall we have three user interfaces for desk teams that are powered by RPA in the background with SIDE as the front-end user interface. Such user interfaces, as well as reducing the average handling time of the most common type of calls from our engineers by 20%, also reduce the time to competence from weeks to days. Without this ability to quickly train additional desk resources to take the calls our engineers need to get customers in service, the transition to getting 100% of desk workers working safely from home would have been significantly more difficult.

Robotic Process Automation Drives Results for Openreach

140,000+	£400,000	1000+
productive hours automated annually	service level guarantee payments saved each year	customer with a total loss of service kept safe and connected during COVID-19

RPA innovations feature in a wide variety of ways across Openreach processes. With an already highly automated system workflow, we use RPA for classic unattended exception handling automation, such as finding or correcting routing on new orders. We also use RPA in assistive automation (as described above), and have moved into developing and deploying cognitive RPA. In our case, this means combining a Natural Language Processor (NLP) to predict what should happen with a customer order next after reading free-form notes, and an RPA executing those transactional next steps. To expedite the deployment journey we first deployed the cognitive robot as an assistive automation that suggested to desk agents what should happen next: they could then agree or disagree and tell the robot to complete the transactional next steps. This reinforced learning accelerated our deployment schedule and gave us confidence in the NLP decision accuracy. Within two months of deploying the assistive version, an unattended version was put live on the most accurately predicted scenarios (where it is more than 90% accurate). It currently saves about 1400 productive hours per year, which should increase to nearly 6,000 in the next few months as we expand the categories enabled for unattended progression.

Looking to the Future

As a fundamentally technology-driven company, Openreach enables technology across the UK via the internet and all other communication forms. Since the company allows other organisations to deliver services, it places a strong focus on deploying the most up-to-date technology across all opportunities. With that in mind, the company's engineering DNA means that its core priority is its people's safety, the efficiency of engineering efforts, and high-quality service to customers.

While the pandemic's lasting effects are yet to be realised, it is evident that the need for greater broadband access alongside increasing speed and stability is growing by the day. As a critical enabler of this facility, this marks a unique opportunity for Openreach, one driven by our investments in the full-fibre future at the heart of our vision and strategy. We also place a premium on running a well-oiled business machine that is efficient at scale - a critical feature of resilient businesses looking to manage costs and cope with an extremely volatile trading environment. Capacity building and service delivery in the face of increased demand for engineering services is another crucial area of focus.

With its mission of empowering the nation through the extensive new ultra-reliable full-fibre network, Openreach's work is central to boosting the UK's socio-economic recovery. However, its impact will reach far beyond these metrics. The renewed infrastructure will increase productivity, reduce commuting and carbon emissions, and power the UK's development for decades to come. We believe that our reliance on intelligent technologies and smart business strategies will not just provide exceptional value to businesses and consumers in the UK, but also provide legacy businesses across the world with a blueprint for their transformation.

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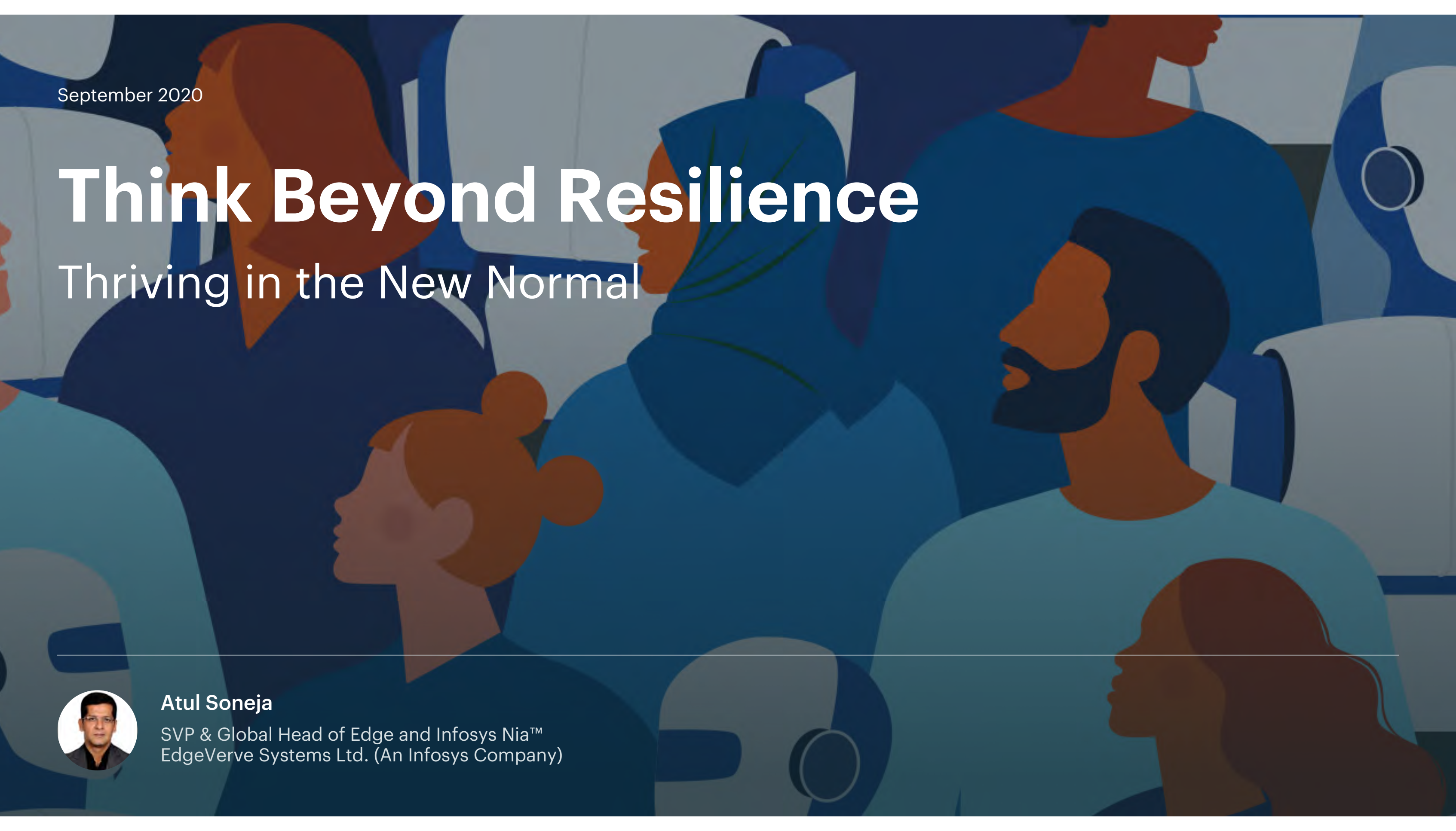

September 2020

Think Beyond Resilience

Thriving in the New Normal

Atul Soneja
SVP & Global Head of Edge and Infosys Nia™
EdgeVerve Systems Ltd. (An Infosys Company)

Summary

Disruption to business is not a new phenomenon. Be it pandemic, war, transformational technology or any other cause, the world has historically witnessed disruptions in some form or the other. While old ways of doing things collapse, businesses that invest in building resilience manage to grow uninterrupted. Balancing resilience and growth is the only way to survive the pressure test of disruptions while staying ahead in the race, and technology plays a major role in that. Read this article to understand how businesses can learn from the past and build a resilient organization that is also geared for growth.

In the past few months, we saw countries around the world unlock their economy, take proactive measures to restore confidence among consumers, and jumpstart economic activities. Even as we realize now that this crisis may be prolonged, it is interesting to note that many businesses have successfully reset their strategy and are reinventing the way they work, as the impact of the disruption becomes more transparent.

Many organizations stand out because of the way they managed the reaction to the crisis in the short-term while their long-term strategic vision remained intact regardless of the precarious business landscape created by the pandemic. It would be worthwhile to study what was so different about them that they managed to continue their business without much of an interruption despite the pandemic, and are poised to bounce back stronger once the dust settles.

In my previous article published in The Edge Quarterly, I have written extensively on how leaders can build an organization that can not only sustain but also thrive in a crisis. While we have learned a great deal about the need for building resilience in order to avoid being overwhelmed when a major business disruption occurs, it is also the right time to think about augmenting this strategy with goals that also focus on growth post the crisis.

Once the pandemic runs its course, the world will witness fierce competition with many enterprises armed with advanced technology and systems in place to run a resilient enterprise with a strong growth engine. It is no more a matter of choice, but an imperative to start working on the post-pandemic growth strategy with lessons and learnings from the past disruptions.

Business disruption is not a new phenomenon

Over the last 100 years, we have witnessed many major and minor disruptions, and each of these disruptions have developed due to specific reasons such as transformational technology, systemic failures, geopolitical issues, and even as a consequence of wars. Starting with the great depression in the late 1920s and the aftermath that lasted for over a decade, we have seen the international debt crisis that rocked the global economy in the 1980s, and more recently, the dotcom bubble and the global financial crisis that happened on the back of subprime.

The business disruption due to the current COVID-19 crisis is unparalleled in the history of disruptions. A profoundly disruptive event, its impact has been differential across sectors. While some sectors have done well, many others have taken a severe hit. We can see a common thread across all these disruptions where they hit businesses hard, primarily because they were largely unpredictable, and the businesses were unprepared to weather crises of such magnitude.

The positives have been that we have emerged stronger and resilient from each of these scenarios. Many 'new normal scenarios' have been created in terms of business models, transformational trends, and evolving customer expectations.

Lessons from past disruptions — innovate or perish

Every disruption is associated with a multitude of companies going out of business. While the resilient survive and grow, the remaining struggle to stay afloat. One valuable lesson that we can derive from history is that when disruption strikes, we either innovate or perish. There is no third option. How a company is prepared and responds to such events defines its success. An ineffective response can have a far-reaching impact on the business and reputation, and detrimental for them in both the short and long term.

How resilience works to future proof your business

Resilient enterprises have a high degree of flexibility that allows them to endure adversity and to come out unscathed. How does resilience help in reacting to a crisis and growing in the aftermath? If we consider the current COVID-19 crisis, the pattern we see is quite similar to the other disruptions that we have experienced in the past.

Let's look at the three stages that every enterprise goes through from the time a crisis erupts to the post-crisis period.

Reacting to the disruption

In this stage, organizations try to grasp what the disruption is all about and react accordingly. It could be in the form of capitalizing on it if it's a positive disruption or activating business continuity strategies. This phase is all about engaging with employees to keep the morale high, focus on maintaining productivity, engaging with clients to boost their confidence, sustaining business, and controlling cost to counter the uncertainties that lie ahead.

Recover and respond

Here, organizations try to recover from the crisis by understanding the situation better and laying out strategies on how to respond in the short term. Typically characterized by a focus on improving productivity, building process and operational efficiencies, and continuing to engage with clients to ensure the sustenance of their business. This phase could also have elements on resetting strategies and evaluating alternate business models depending on the extent of the disruption and an understanding of the same.

Grow at the opportune time

The third phase is scaling growth in the 'new normal' scenario. Enterprises need to be prepared with strategies and execution plans to leverage the bounce back that's anticipated in the economy. This is a critical stage since the first movers might have an early advantage over the competition and requires businesses to be agile to pivot and address emerging opportunities.

A large part of the solution can be addressed by leveraging technology smartly. Fortunately, we have technologies like AI & Automation at our disposal as never before. We have come across many reports on how COVID-19 has been the biggest accelerator of digital transformation. In fact, business resilience as a concept is an act of fine balance between the various phases — an ability to read the situation well and being nimble enough to respond with agility.

Balancing resilience with growth

In this 'innovate or perish' scenario, organizations that have invested in a proactive resilience strategy have a head start over others who have only begun investing in these initiatives. The organizations were also able to absorb the debilitating impact of the pandemic swiftly, without incurring huge costs.

Before the crisis unfolded, organizations focused sharply on growth and invested mostly in revenue-generating activities. For instance, many organizations did not invest in building resilience, be it a remote working infrastructure or adopting automation and AI. With businesses staring at a longer period of uncertainty than they previously anticipated, they are going on an overdrive to accelerate digital transformation and build systems that can help tackle the crisis. This has put the post-pandemic growth strategy in the back burner.

What we need today is a technology strategy that balances growth and resilience for businesses to continue without interruption, irrespective of any disruptions in the business environment. This calls for a careful evaluation of technologies that can contribute to both resilience and growth.

AI across value chains

Most organizations are built on a set of processes and value chains that enable operations and differentiate against the competition. A strong digital foundation with AI infused in the value chain will help build a cognitive and connected enterprise. To quote an example, consumer experience has been a buzzword for long and has become all the more important in today's uncertain times. Businesses can no longer rely on a transactional approach, but need to think with intelligence and agility. A successful enterprise is characterized by its ability to provide contextual, personalized, and meaningful customer interactions, all the while delivering exceptional experiences. This is made possible by building cognitive capabilities that can unlock the information and insights in not just a single value chain but by connecting them across the organization.

Supply chain transformation

One of the biggest areas impacted due to COVID-19 has been both the local and global supply chain. We witnessed many stock-out situations in retail outlets across countries. Hence, it becomes crucial for an enterprise to have visibility across the demand side and the supply side of the value chain to ensure customer satisfaction, without missing out on new business opportunities.

Unlocking intelligence from your enterprise documents

Unstructured data—document text, voice, images, videos—accounts for almost 80 percent of an enterprise's data. Imagine tapping into these documents with AI to gain real-time insights. This can transform the entire decision-making process of an organization and provide the ability to function better across all three phases of react, recover, and grow.

Intelligent Automation

This technology continues to evolve fast with higher integration of AI and is one of the most preferred ways to maintain productivity and lower costs, during both normal and challenging times. With many benefits like being efficient, scalable, and affordable, automation also helps businesses maintain uninterrupted operations, especially during situations around business continuity or unplanned workplace closure.

While resilience demands investments in transformational technologies and in creating flexibilities in the business, growth demands investments in revenue-generating areas with a focus on cost-reduction. Building resilience takes time and investment and, above all, a robust strategy. In the present challenging times, this has become all the more important. With the initial phase of reacting to the crisis now through, companies are gearing up to operate for an extended time under the same uncertainty. This is the ideal time to invest in building a proactive resilience strategy to stand the pressure test of future disruptions while making sure that the long-term strategic vision aligns with growth. Organizations that successfully achieve this delicate balance between resilience and growth stand a better chance to continue their business uninterrupted overcoming the external and destabilizing forces with ease.

September 2020

Business Uninterrupted

Balancing Resilience and Growth

Amardeep Modi
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Summary

With rapidly changing market dynamics, enterprises are finding it increasingly difficult to keep pace with evolving customer expectations, intensifying competition, business and operational continuity goals, regulatory stringency and coverage, and growing cost pressures. These challenges have necessitated organizations to transform their legacy business models to digital-first with lean, resilient, and agile processes that are especially relevant today. Read the article to know how enterprises steer towards being resilient.

Uncovering the strategic value of automation

As benefits from traditional levers such as shared services, labor arbitrage, lean six sigma, Enterprise Resource Planning (ERP), and legacy tools/wrappers started to saturate, enterprises began to look at next-generation digital levers such as Robotic Process Automation (RPA), Artificial intelligence (AI), process mining, analytics, orchestration, and the cloud to switch to digital, automated, and smart business processes. While a few enterprises adopted automation to achieve strategic objectives such as top-line-growth, for many the demand for automation was driven primarily by the need to reduce costs and improve operational efficiencies and quality. Consequently, automation was not a corporate mandate or on the C-suite agenda for most organizations, resulting in lower adoption and scale.

However, the COVID-19 pandemic amplified the demand for automation like never before, as it stressed organizations' long-standing business continuity plans. The pandemic exposed severe business continuity and survival-related challenges that plague legacy business models, which rely heavily on manual operations.

While enterprises cannot avoid volatility and uncertainty in the external business environment, they can – and should – take specific measures to build resilience into their value chains. Going digital is a vital step in that direction. Industry leaders are also acknowledging that organizations that are ahead in their automation journeys are better placed to handle the impact of the ongoing crisis. The pandemic has made organizations realize that digital workers are their best bet for business continuity planning and crucial to ensuring business resilience, agility, and growth.

It is no wonder, then, that – to cater to this need – most service providers are looking to do things differently post-COVID-19, including those listed in the exhibit below.

Service provider responses to work strategies in the next normal

	Completely disagree	Neutral	Completely agree
More work-from-home-options	12.1%	12.1%	75.9%
More automation	14.3%	11.0%	74.8%
More business continuity planning	11.0%	19.8%	69.3%
More differentiated customer recovery planning options	14.3%	20.9%	64.9%
Better ability to shift work across locations	18.9%	17.8%	63.3%
More talent training	26.4%	22.0%	51.7%
More geographic dispersion	41.4%	20.7%	38.1%

Source:Everest Group (2020)

The need for a holistic automation solution

Transforming traditional businesses into lean, resilient, and agile organizations is a journey that requires more than making some processes smoother or faster. While an automation-alone approach offers some quick wins in the form of cost and operational benefits, it has now become evident that it lacks the potential to deliver transformational benefits and drive the value expected from a digital-first business, because enterprises continue to struggle with:

- Amplified inefficiencies when automating a broken or inefficient process
- Lower value realization when automating non-standardized processes
- Lower automation rates and an inability to automate complex processes resulting in task automation instead of process automation
- Difficulty in discovering processes to maintain a strong automation pipeline, which results in lack of scale and slow growth
- Inability to efficiently orchestrate workflows across the human workforce, digital workers, and system steps

Enterprise scale and pace of transformation are critical to realize strategic business outcomes such as innovations in the operating model, agility across the value chain, and business continuity during crises. Clinging to established processes might not allow firms to effectively manage the challenges posed by external disruptions. Further, they need to better understand the most inflexible and vulnerable areas of their operations to make the required adjustments to improve value chain flexibility and adaptability.

To make the switch, organizations need to adopt a holistic solution that helps them understand as-is processes, identify optimization and automation opportunities, orchestrate end-to-end processes and workflows across human and digital workers, and continuously monitor processes to identify new automation opportunities and drive innovation. They can achieve such a transformative solution by leveraging a combination of digital levers, such as process mining and analytics, intelligent automation, process orchestration, and the cloud. Each of these technologies has a critical role to play in accelerating and orchestrating enterprises' digital transformation journeys. Let's take a closer look at each.

Analytics and process mining

Enable enterprises to discover their as-is states by mapping different process variants, identifying tasks/activities involved in subprocesses, and providing information around frequency, cost, resources consumed, and activity execution time. They also help identify and prioritize potential tasks / use cases for automation or optimization. Additionally, they can enable a continuous feedback mechanism by monitoring processes throughout the transformation journey and identifying the next set of optimization opportunities and potential gaps that might arise with changing external factors and constraints.

Intelligent automation

achieved by combining RPA and AI technologies, enables a higher degree of automation of tasks involving various types of data, including unstructured data. Intelligent automation tools help organizations automate both front- and back-office processes, resulting in lean and more resilient operations. Digital workers also leave footprints – logs and audit trails – which organizations can regularly analyze to identify gaps and new optimization opportunities.

Enterprise process orchestration

technologies coordinate the flow of work across multiple systems, digital workers, and the human workforce to carry out an end-to-end process. They also enable process flow governance and work routing to the best worker (human or robot) based on the nature, type, and criticality of the task and help harmonize human+machine dynamics.

Cloud and mobile apps

streamline processes by centralizing company data for remote access, allowing employees to work remotely and collaboratively with co-workers in other locations. Having all information and data in one accessible place allows employees to analyze collective insights, which can drive better business decisions. Cloud infrastructure is leaner and offers the speed and agility to adapt to market changes and rapidly implement process improvement initiatives.

Enabling new delivery models

Until recently, generational shifts in labor pools, changing workplace cultures, and evolving employee expectations had been driving organizations to adopt a Work At Home Agent (WAHA) delivery model. It could help address business continuity, flexibility, access to hard-to-find-skills, and geographic restrictions. But enterprises typically regarded WAHA a hard-to-govern model, relevant only for limited services and employees.

The COVID-19 outbreak has fundamentally altered this perception by making remote working the norm. However, the new model also has made enterprises realize multiple challenges along the way, related to employee training, workforce productivity and performance, IT bottlenecks, and desired customer service experience. Intelligent automation solutions can help address these challenges not only to enable remote delivery to ensure business resilience, but also embed it in organizations' business models and make them more scalable. Here is how next-generation automation solutions can support enterprises and drive value for them:

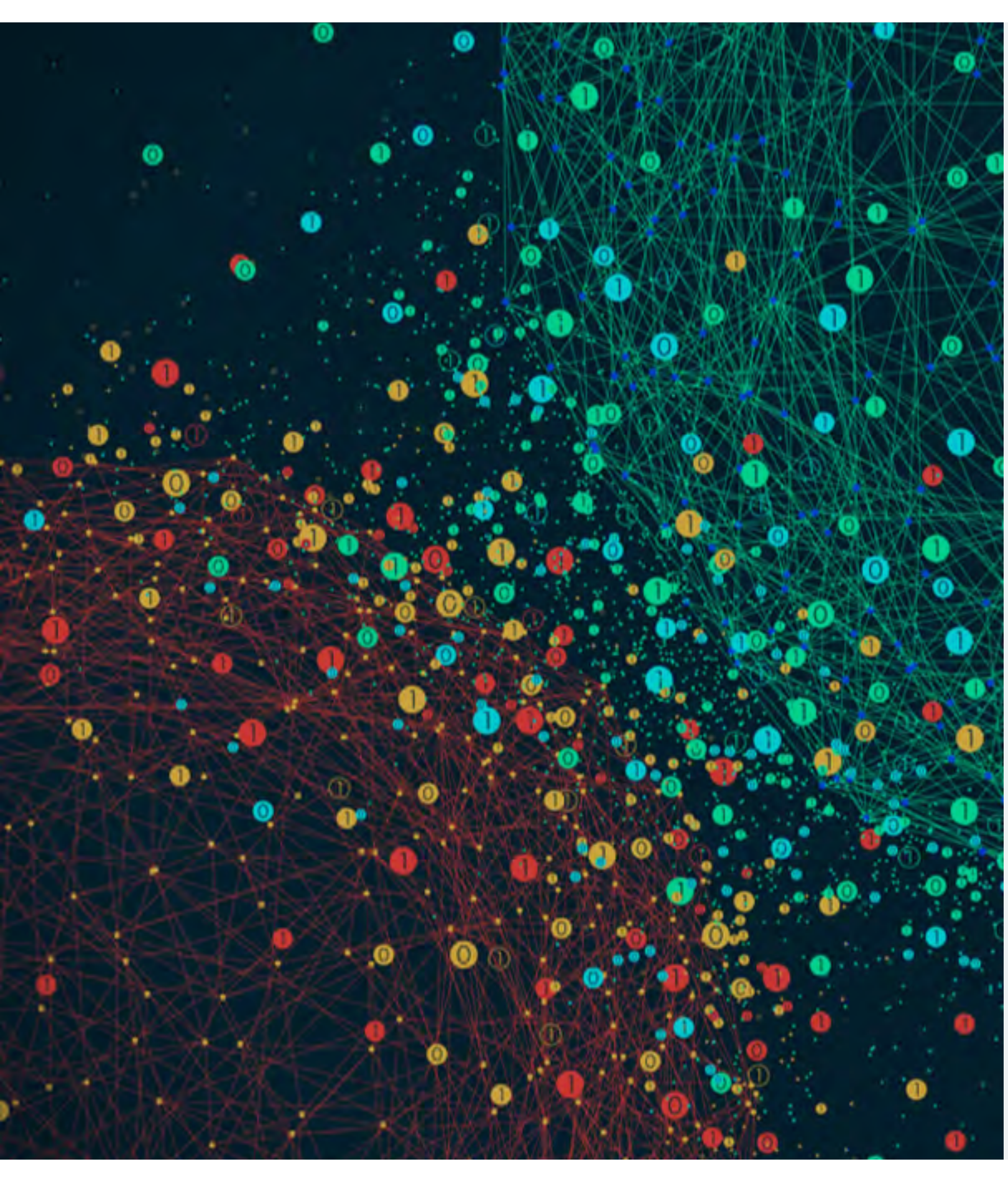
- Workforce intelligence and process mining can help enterprises identify productivity improvement opportunities and check conformity with organizations' best practices.
- Agent-assist robots can provide step-by-step process guidance (especially to new and less-experienced agents) and offer next-best action recommendations for fast and accurate outputs. They can also provide quick access to customer data across siloed applications and past interaction details for consistency and superior experience.
- The cloud can improve the readiness of remote working models in terms of technology infrastructure and provide better accessibility to organizational data and systems. It can also help address remote working-related security and governance concerns and enable rapid implementation of process changes with evolving policies and guidelines.
- Front-line managers can leverage capabilities such as speech analytics remotely to provide guidance/support on behavioral/conversational aspects to improve customer interactions.

Best practices for success

As organizations seek to become digital-first businesses, they should adopt a set of best practices to overcome common challenges and achieve superior outcomes, including:

- The digital transformation strategy should be organization-wide and inclusive, with a clearly defined roadmap and approach for desired outcomes. Enterprises should be willing to reimagine business processes to capture value and create an agile roadmap for transformation vis-à-vis desired outcomes.
- Organizations should take into consideration various factors that go beyond technology capability, including the technology and services provider partner ecosystem, quality of product training and support, and flexibility in the commercial model. Doing so is critical to selecting enterprise-grade intelligent automation solutions.
- Senior executive and business owner support is imperative to continuously identify process optimization opportunities and act on them. Enabling a cross-functional Center of Excellence (CoE) with a mandate to drive enterprise-wide automation at scale will go a long way in achieving the desired results.
- The implementation should be treated as a change program. Developing an organizational culture that embraces innovation, involving relevant stakeholders and process SMEs for inputs and regular feedback, and partnering with enterprise IT in early stages is crucial for success.
- The CoE should play a key role in identifying and acquiring the skills needed and sharing best practices to capitalize on technological innovations. To get a jump-start, enterprises could consider leveraging service providers for initial deployment and their experience in implementing/orchestrating various technology solutions.
- Organizations should think of the journey as a series of several steps instead of a big bang implementation, with each step potentially driving certain value and RoI for the enterprise.

It is thus evidently clear that the adoption of digital technologies is key to becoming a lean, resilient, and agile business, able to drive future growth. This is especially true today, and enterprises that build a long-term vision to become digital-first and successfully execute their digital agendas will emerge as industry leaders.



September 2020

Resilience through Clarity

How Process Intelligence Offers Enterprises a Blueprint for the New Normal

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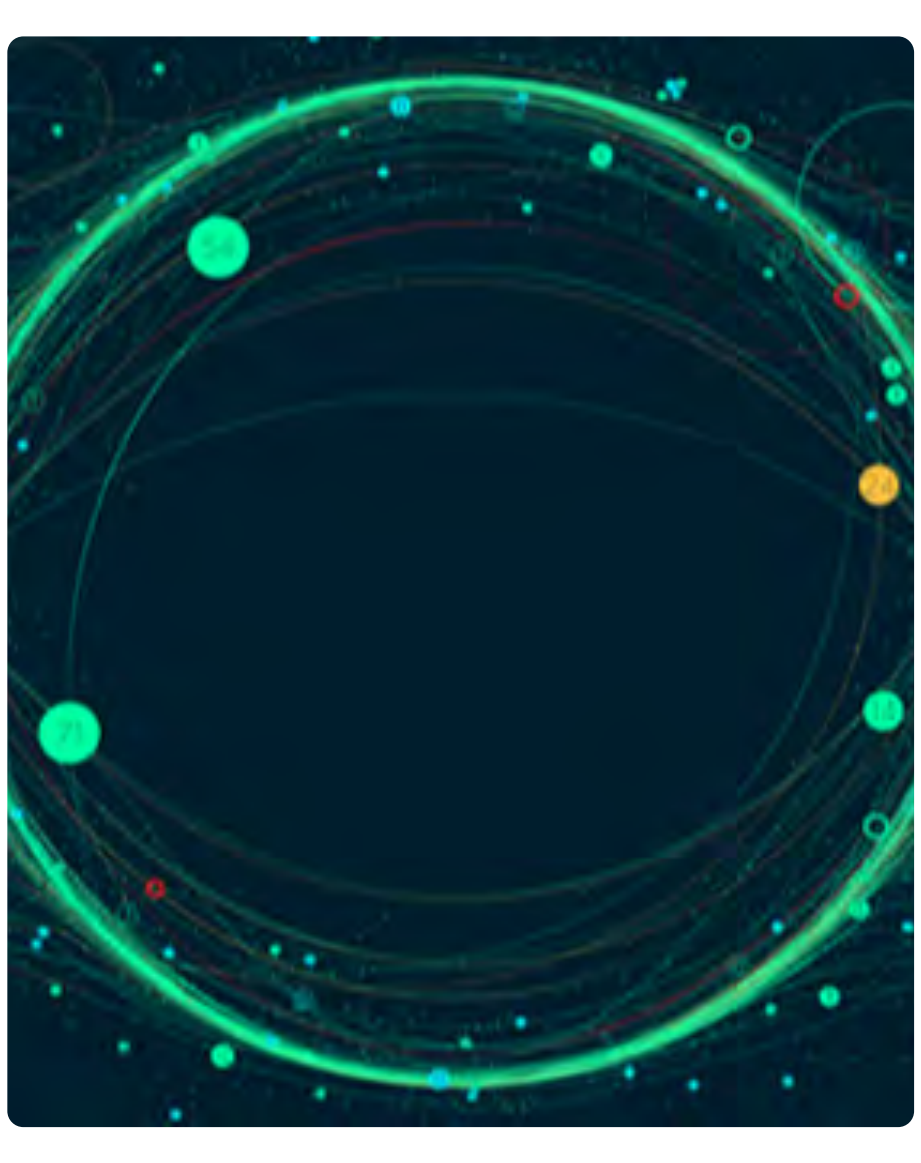


Summary

While planning digital transformation, enterprises must ask questions pertaining to critical processes. These can range from:

- Are processes being executed in line with the documented steps?
- How many processes do not follow the optimal execution pathway? What is the impact of these deviations on efficiency and the bottom line?
- What are the main reasons for process deviations?
- Where do leakages occur, and how can they be mitigated?
- What parts of the process can be automated for maximum efficiency and impact?

Rushing to implement automation plans without answering these questions can have disastrous consequences, and subjective human accounts, hunches, or historical data are inadequate means of tackling the problem. Read this article to understand how a combined solution consisting of process discovery and process mining can be the answer to the above questions.

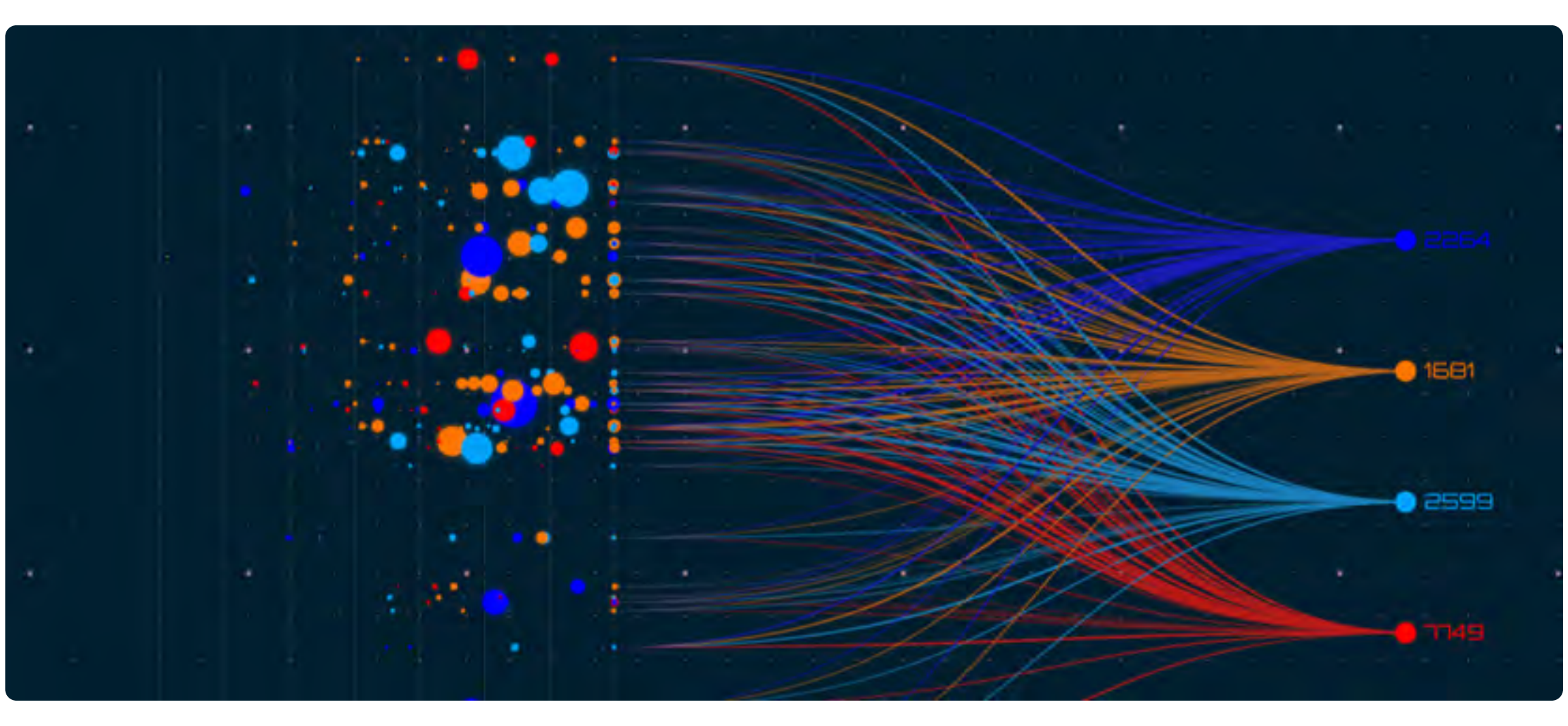
Let's first define "Resilience" in the context of an organization – "It is the capacity of the organization as a whole to adapt quickly and bounce back in the face of adversity". In fact, we go one step further to say that this ability can become a source of competitive advantage in the current business situation, not just to bounce back but to bounce forward – ahead of the competition. It is now increasingly clear that the recovery from the current situation will be Digital; – and hence accelerating and scaling the Digital journey becomes the critical path towards building resilience. It is no surprise that several organizations are accelerating their digital transformation plans, with time frames shortened exponentially due to the ongoing pandemic. Alongside the need for rapid transformation, crucial to business resilience in the second phase of the new normal, enterprises also need to think about scale. Hasty and short-term thinking may be tempting given the circumstances but will prove costly in the longer term. A measured and effective transformation, will need strategic planning and nuanced decision-making, both of which necessitate an intricate understanding of enterprise processes.

However, before enterprises can begin their journey of change, they need to establish a clear roadmap and transformation strategy. Globally and across verticals, enterprises find it challenging to address issues like resource underutilization, process leakages, and failed automation deployments. This inability stems from a lack of granular and nuanced understanding of enterprise processes. Any enterprise function is a collection of processes, and consequently any fundamental shift must be underpinned by a consistent, logical, and thorough exercise in process optimization.

It is important to note here that quality and consistency at scale are critical to the success of any technology-driven transformation initiative and the need to evolve, while a welcome opportunity for companies, comes with its fair share of challenges. All too often, we have found that biased process selection hampers the effectiveness of enterprise transformation plans. By relying on subjective data and documentation that is often both inaccurate and out of date, enterprise automation initiatives are set up for failure from the outset, often more misguided in planning than flawed in execution. At the planning stage, enterprises must ask a wide range of questions before executing their transformation strategy. These include:

- Are processes being executed in line with the documented steps?
- How many processes do not follow the optimal execution pathway? What is the impact of these deviations on efficiency and the bottom line?
- What are the main reasons for process deviations?
- Where do leakages occur, and how can they be mitigated?
- What parts of the process can be automated for maximum efficiency and impact?

Rushing to implement automation plans without answering these questions can have disastrous consequences, and subjective human accounts, hunches, or historical data are inadequate means of tackling the problem. It is here that a powerful combination of Process Mining and Process Discovery meets the challenges head-on. As an intelligent and fully automated technique, Process Discovery gathers primary data from user keystrokes to identify automation candidates. Now, combined with Process Mining, Process Discovery is exponentially more effective in guiding automation efforts, ensuring substantially higher chances of success.



Using a combination of Process Discovery and Process Mining to drive results

Before we take a look under the hood, it may be essential to delineate the two concepts. Consider the typical enterprise process. In most cases, enterprise processes can have five levels (Level 1 - Level 5), with each level, in ascending order of granularity, offering specific insights. Process Mining is a technique that focuses on L1-L3 analyzing event commits and application logs to discover, monitor, and improve real processes based on current organizational information. It can generate enterprise-wide process maps offering a thorough understanding of all process structures. While all but eliminating manual effort in this exercise, Process Mining throws up one concern - the absence of nuance derived from analyzing human-system interactions. This gap is where Process Discovery comes into its own.

As a machine learning-based technique that identifies process automation candidates, Process Discovery also designs automation workflows, injecting speed, efficiency, and attention-to-detail into the automation strategy process. As a non-intrusive tool, Process Discovery analyzes primary data from user keystrokes using built-for-purpose neural network algorithms to generate accurate and detailed business process maps, creating a robust foundation for automation execution. Therefore, a combination of Process Mining and Discovery can offer enterprises a faster and more assured pathway to automation success. Let's understand how these technologies work together.

Consider the Purchase Order (PO) process in procurement. While Process Mining can offer insights into how an enterprise is creating POs - from purchase requisition to PO creation to PO approval - Process Discovery generates a granular process map based on user keystrokes gathered non-intrusively from screen navigation, application access, and any other activities. Continuing with the example of the PO process, let's say Process Mining points enterprises to the fact that the most significant bottlenecks occur at the PO creation stage. Organizations now need to understand precisely how creation is executed, deploying Process Discovery to analyze user-system interactions at this stage. Once this task-level analysis from data recorded from user machines is fed into an AI engine, enterprises may gather insights about:

- The number of ways POs are processed
- The most common way users process POs
- Average time to process a transaction and the number of process steps involved
- Business variations in PO processing steps across areas such as subcontracting or stock transfers
- Exception variations such as 'PO on Hold'

Enterprises can then harness these insights to amplify the efficiency of process **re-engineering, process automation, process compliance, process training, and process efficiency**.

Understanding the benefits of Process Mining and Process Discovery

Broadly speaking, the combination of Process Mining and Process Discovery offers impact in four specific areas:

Process Efficiency

Process Mining can shed light on the actual efficiency of enterprise processes by identifying process bottlenecks and their most significant causes. More importantly, the technique can also offer a detailed understanding of the business root causes and cost impact. Once this information is in place, Process Discovery can help businesses understand granular details such as the number of variations and exceptions, the amount of time spent on non-essential activities, and specific insights into application delays and inefficiencies. Further, by establishing a performance baseline, this combination helps enterprises infuse strategic thinking into their planning process and create the right conditions for sustained business process improvement.

Process Automation

Process Mining offers process-level automation opportunities while indicating the potential cost savings from automation. On the other hand, Process Discovery generates task-level automation opportunities, analyzing repetitive steps, and swivel chair processes to help prioritize automation efforts. This level of diligence not only increases profits but also improves employee productivity and morale through greater automation efficiency. Further, by identifying unnecessary handoffs, complex communications, and authority ambiguity, this exercise can help streamline process execution and help create lean, high-quality, and detailed standard operating procedures.

Process Compliance

In an environment of constant flux and extremely stringent regulation, compliance can often be a stumbling block. By flagging cases of non-compliance and their causes, Process Mining can direct companies to be better compliant. In contrast, despite a complementary output, Process Discovery identifies specific non-compliant variations, non-compliant application accesses, and the time spent on non-compliant activities.

Process Training

Process Mining can identify candidates for training and the specific steps that require training from a training standpoint. Process Discovery enriches this analysis by determining what training needs to be offered, generates BPMN compatible business process maps, and optimized process definition documents. In addition, since Process Mining captures detailed employee performance data, enterprises can pinpoint the most efficient employees while also comparing performance data between regions, departments, and teams. This intelligence can be used to create roles, functional responsibilities, and detailed process maps that can be used to educate staff on the bigger picture, creating a competitive edge.

Evolving with Process Discovery and Process Mining

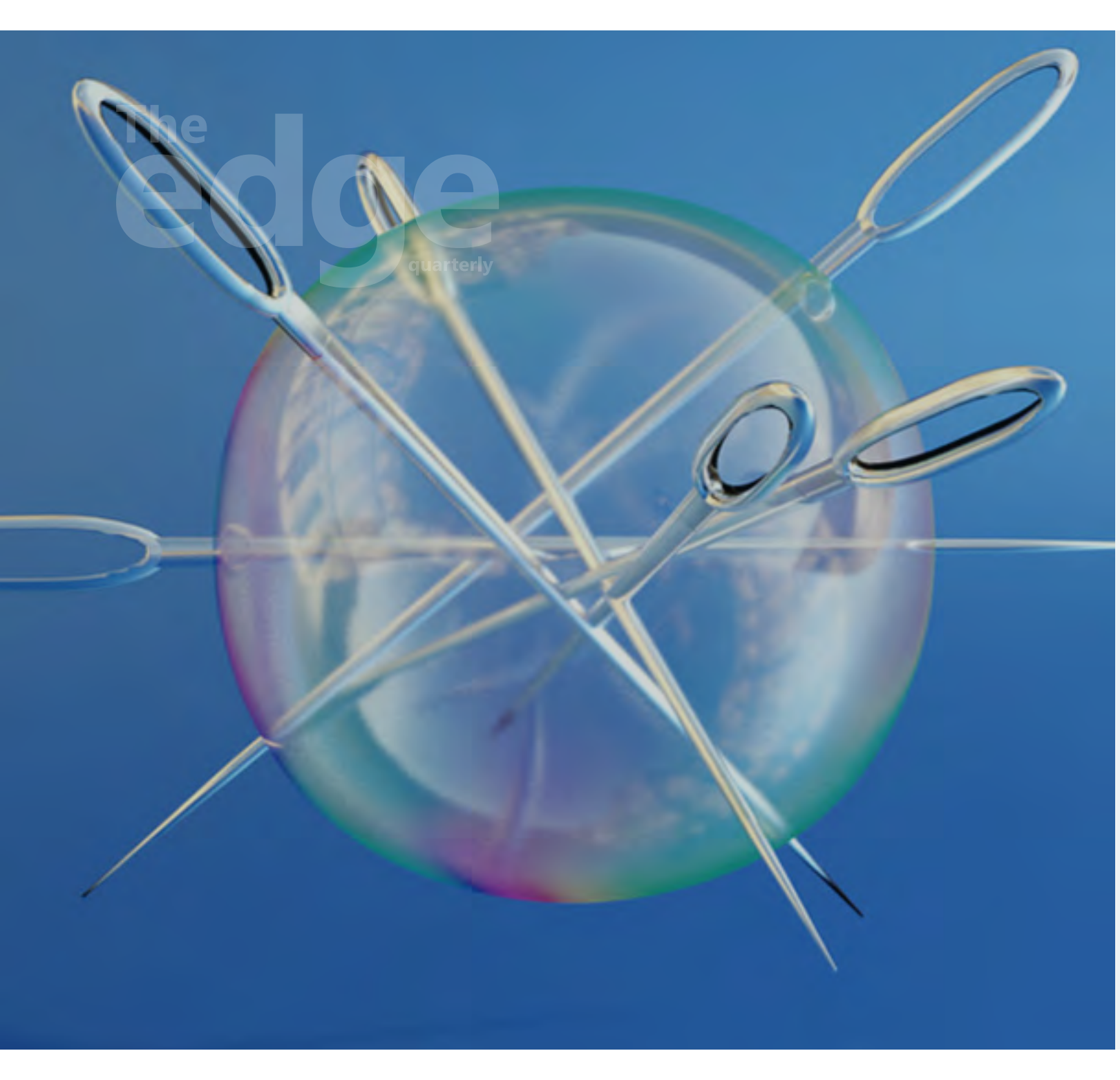
Rapid evolution is not just a function of technology adoption. The choice of technology, scale, implementation partner, and change management process are all equally important. Process Mining and Process Discovery can help enterprises understand themselves and their systems better by generating accurate and highly insightful process maps based on actual execution data. Armed with these insights, enterprises can make well-informed decisions about their tech stack and rollout, avoiding the inconvenience seen with prematurely decommissioned systems or hasty adoption.

The new normal has changed how we live, work, and operate. The situation is no different for enterprise growth and scale. The focus on agility, resilience, and efficiency will disrupt conventional enterprise models and accelerate enterprise transformation speed. On the other hand, it will also complicate the shift and place an intense focus on smart and agile thinking at a scale that drives measurable impact. A combination of Process Discovery and Process Mining will help organizations function with the clarity required to catalyze sustained growth and innovation. A well-charted growth path supported by robust insights will be the defining element of the enterprises that don't just navigate the new normal but determine the future.

EdgeVerve has partnered with Minit [i], a leading provider of Process Mining, to enhance its Process Discovery offering. This partnership will accelerate process excellence for EdgeVerve's clients by offering them comprehensive, actionable process intelligence.

References

i https://www.edgeverve.com/assistedge/assistedge-discover/



September 2020

Living in a New Zealand Bubble

What it means for Digital Transformation

Ron Stuart
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Summary

While New Zealand tackled the Covid problem with excellence, the country has been apprehensive of adopting technologies like AI and Automation to accelerate digital transformation. Much is not lost as Ron Stuart takes us through some key areas where technological investment is required to achieve Business Resilience.

For years, in various positions, including a 5-year role as Commercial ICT Strategist for the New Zealand Government, I had been advocating the concept of digitalization, empowering the consumer and citizen, enabling new workforce models, creating Automation and AI capabilities, building significant data and analytics capabilities, and making sustainability an organizational differentiator, only to be repeatedly told:

- It is too soon, and technology is not there yet
- It is not as easy as you make out, and we are not ready to listen yet
- Incremental change is the best path,
- Working from home is not a reality, and people will be significantly less productive
- Customers will not engage digitally (in our sector)
- Sustainability is "not our focus"

Just at the point of getting totally frustrated and considering my end-of-career options, along came the COVID-19 global pandemic. The digital transformation barriers magically and in a flash disappeared:

- Customers, Clients, and Citizens (C3) embraced digital engagement
- Working from home quickly became a reality (and in many cases a permanent change)
- Automation is now being deeply explored to mitigate risk and to introduce resilience
- Ecosystem partnering/collaboration has emerged as a viable business model
- Sustainability has become a focus
- There has been a refocus on regional and national supply

As a serious researcher, I decided to look at the sustainability and durability of these outcomes, particularly in a New Zealand context.

COVID-19 — Preparing for a new reality

Three days [i] after WHO declared the coronavirus outbreak a public health emergency of international concern, New Zealand began introducing disease prevention measures and continued strengthening them in the weeks that followed. New Zealand [ii] committed relatively early to a clearly articulated elimination strategy and pursued it aggressively. An intense lockdown proved highly effective at rapidly extinguishing the virus.

A major driver of the New Zealand decision to pursue elimination as a strategy was the increasing evidence that this was the least bad option. I also observed the relative success of several Asian jurisdictions in containing the COVID-19 pandemic, notably Singapore, South Korea, Taiwan, and Hong Kong. In western countries, however, it was also apparent that the mitigation strategy of "flattening the curve" was failing, as health services were being overwhelmed across Europe. These countries were increasingly switching to a suppression strategy, which could reduce cases to manageable levels but at the likely cost of a prolonged [iii] lock-down while waiting for an effective vaccine or antivirals.

I saw a variety of responses, including New Zealand's, noting that the World Health Organization (WHO), among others, saying New Zealand has been world-leading in its response to COVID-19. Additionally, other commentaries have suggested that other countries could follow New Zealand and take the same kind of decisive action. Yet western countries, in particular, have appeared remarkably slow to do so, despite the advantages of immense scientific knowledge and modern tools of pandemic control.

New Zealand has one of the lowest rates of COVID-19 transmission, illness, and death, taking early action to combat the pandemic. Inside our borders, we have reopened the economy and social life – on many days, it's as if nothing had happened, and all around me, COVID-19 has ceased to be the major subject of discussion. We catch up with the news on TV and through social networking sites, smugly commenting on how our 'nation of 5 million' has worked together to combat the threat. Picture this - we even recorded an overall drop in our national unemployment rate (down to 4.0%). Internal travel & tourism is closing the gap due to the closure of our borders to international tourism.

What an incredible story and example New Zealand can provide to the rest of the world, or can we? New Zealanders love being seen as world leaders in any sphere. It is a source of real national pride to say that New Zealand has contained the pandemic. However, in reality, the response has also created massive short-term social and economic costs, which will be particularly tough for those [iv] with the least resources, including Māori and Pacific populations and low-income New Zealanders.

The New Zealand Government's response has included a range of measures to protect these groups, but the reality is that New Zealand still has to plan for the real chance of its elimination strategy failing and a second wave of community infection occurring.

The role of complacency in terms of our economy and digital transformation

My thoughts in developing this article started with the premise that if New Zealand is demonstrably providing global leadership around COVID-19 elimination, it could also provide leadership in respect of digital transformation. But all I can see is complacency:

Not only are we building complacency about our COVID1-9 response and not preparing for the second wave, but I can also observe complacency about our approach to the economy and pending downturn. There is complacency towards digital transformation – our ability to transform organizations to build resilience.

The last five months have demonstrated how well we can adopt new ways and new technologies. For those who were not ready to respond to a crisis, like natural disasters, the results were catastrophic. While some organizations might have been lucky enough to ride a wave of disruption and survive without planning, if you can predict and prepare for it accordingly, you might be able to thrive. For those prepared to leverage the new business environment that it can bring, it can drive tremendous and unexpected advancement within an organization. At some point, digital disruption happens to every organization. However, unless well planned and executed, digital disruption – the inevitable deluge of new tools and processes that is part and parcel of refining digital business processes – can be akin to managing a natural disaster.

The new normal

Complacency is our real enemy, and we must accept that the old ways will not come back – things have fundamentally changed

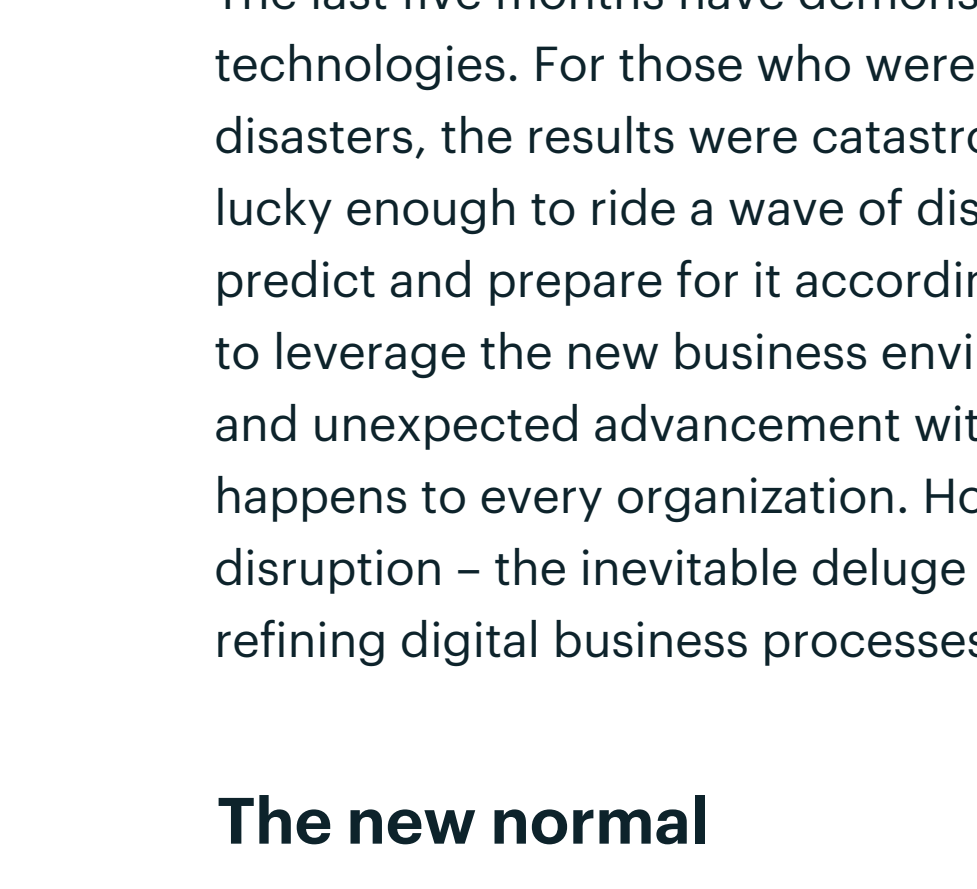
- Clients/citizens have become more digital-savvy, and we must cater to their needs
- The social contract between the government and business has changed significantly
- We need to better understand our data and analytics
- We must continue to reorganize to recognize a distributed workforce (where appropriate)
- We must reshape our operating models, our structures, and our decision processes
- Procurement and Supply Chain needs to become more value-focused
- Supply Chains need to be built that embrace local, national, and regional supply
- We need to build ecosystems and work at achieving shared outcomes with our partners

We need to invest:

- In redefining "who we are" as both citizens and as businesses, and how we will act in the future
- In talent and learning, recognizing that we need talent for the future, not for the past
- We need to learn - how to learn
- We need in-depth capability in data and analytics, to create knowledge and agility
- We need digital technologies and automation to streamline our processes, reduce risk and build resiliency
- We need to create ecosystems of aligned partners
- We need to recreate our supply chains, using technology platforms that enable us to see our supplier's suppliers and build resilience

The way forward – the new normal is yet to emerge, but we need to prepare for it by understanding ourselves and our capabilities

As New Zealanders, we need to burst our complacency bubble and prepare for disruption – it is inevitable. We also need to aggressively prepare our organizations for the future, thinking about the wider dimensions, which are all inter-dependent and all currently exist at different levels of maturity and are all impacted by digital disruption. The following graphic represents a view on those different dimensions – each of which must be supported by automation and AI technology in order to enable organizations to participate in the new normal – which is yet to emerge.



Direction & Strategy
Why the organisation exists and where it is going
Vision - Strategy- Leadership

Structure & Culture
how the organisation is structured and what is its culture
Structure- Roles - Culture

Human Capital
the people capability of the organisation
Competencies- Capabilities- Talent sourcing

Operating Model
the organisations capability and outputs
Systems - Product- Business rules - Technologies

Data & Analytics
how the organisation creates value from its data and information
Data access- analytics capability- value creation capability

Customer Experience
Now the organisation engages and interacts with its customers
Engagement- channels & connections-customer care

What we have learned

A significant role that digital transformation can play in respect of COVID-19 is in reducing risk and increasing resilience – the enablement of organizations to reduce the impact of any second or third or more waves of the coronavirus has a significant reliance on the creation of automated capabilities. But complacency is the sworn enemy of both survival and opportunity. Our new normal includes technology, automation, AI, machine learning, and we cannot wait until a new wave hits us.

Addendum

The final draft of this paper was written on 4 August 2020, and on 9 August 2020 New Zealand marked 100 days without a domestic transmission of the coronavirus. New Zealand's successful fight against Covid-19 had made the Pacific island nation of 5 million people one of the safest places in the world as at that date. Citizens had returned to normal life, although authorities expressed concern that people had begun to refuse testing, were avoiding the government contact tracing apps, and even ignoring basic hygiene rules.

Then on Tuesday 11 August it was announced that four individuals from a single-family in Auckland have tested positive for COVID-19 and they have no history of recent travel internationally. This broke New Zealand's 102-day streak without a case of community transmission. The news forced Auckland back into a level 3 lockdown, while the rest of New Zealand entered level 2 for a minimum of two weeks. This COVID-19 alert level 3 is a 'devastating blow' for Auckland's hospitality and retail businesses.

Opinions expressed in the media were that "this is a casualty of us being too complacent and smug," with a general view that New Zealand as a nation got a little bit smug in the way we handled it. We were congratulating ourselves on it and then we had other countries raving about how well we had done it and this complacency has led us to this situation where we're pretty well back where we started and we're dusting off our contingency plans once again.

What we have learned #2

Complacency and smugness have been our enemy in terms of COVID-19 community transmission. The same can be applied to the role of digital transformation – momentum for which slowed significantly while New Zealand basked in global adulation for its leaderships in the fight against COVID-19.

Let's stop being smug and complacent, let's recognise that we need to keep momentum in both the fight against COVID-19 and digital transformation.

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September 2020

Moving the Dot on Tail Spend Management

Taking Complete Control of Procurement Costs

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Summary

Most organizations run a tight ship when it comes to managing their strategic spend — i.e., top 80% of spend with a few strategic suppliers, while they are constantly finding better ways to manage Tail Spend.

Tail Spend, while constituting only 20% of the total spend, makes up for almost 80% of the transaction volume, and contributes to the increasing number of suppliers. Read this article to understand why Tail spend is equally critical and how organizations must tackle it to make their procurement more resilient.

John, a procurement manager at a large Fortune 500 company, is having a rough day. It's time for annual planning, and yet again, he appears to be struggling with limited information about total spend. The company has been running many initiatives from time to time, to make procurement democratic and digital. Unfortunately, the outcome has not fully addressed all the challenges. While the main spend is managed well, the lower value spend in the indirect spend categories remains largely unaddressed.

Some of the challenges John is concerned about and would like to find answers to are common to other large organizations as well.

- How can I reduce costs associated with low-value transactions?
- How can I provide a more seamless buying experience to the end-user, removing their dependency on the Procurement team for low-value purchases?
- How can I improve savings from low-value transactions?
- How can I further leverage the best existing suppliers and reduce the need to create new suppliers?
- How can I have better governance around the low value spend?

Most organizations run a tight ship when it comes to managing their strategic spend — i.e., top 80% of spend with a few strategic suppliers, while they are constantly finding better ways to manage Tail Spend.

> Tail Spend, while constituting only 20% of the total spend, makes up for almost 80% of the transaction volume, and contributes to the increasing number of suppliers. Over 65% companies have limited visibility beyond their strategic suppliers [i]. Getting complete visibility to the current Tail Spend will be the best place to start addressing challenges.

According to the Boston Consulting Group, companies that can manage their Tail Spend using digital technologies can cut their annual spend by 5-10% on average [ii]. That could translate to millions in savings for large organizations!

How organizations typically manage Tail Spend

Manage demand

One way to curtail Tail Spend has been to avoid it, which is driven by laying down certain procurement policies, introducing checks on the creation of a purchase request, and manual interception of requests to consolidate demand. The approach causes a delay in placing the order with the supplier, leaving behind a dissatisfied requestor and a procurement team loaded with manual tactical (non-strategic) tasks.

Add Purchasing channels

Another way of controlling Tail Spend is by introducing new ways to place a request and defining rules around which supplier orders can be placed with. This is achieved by connecting the procurement system with online supplier catalogs and allowing requestors to use purchasing cards (P-cards) to complete the purchase immediately. Organizations, however, have been unable to extract the best out of this approach. The limitation here has been the challenge with catalog content maintenance and the ability to provide catalogs for all categories of goods and services.

Spot buying desk

Setting up a dedicated team to intercept purchase requests below a pre-defined value threshold and analyze spend is another popular method to manage Tail Spend. This is either an in-house or outsourced team, tasked with ensuring the purchase request is routed to the correct supplier, especially in scenarios where the supplier is unknown. They identify a new supplier through a sourcing event or place the order with an open marketplace. Such an approach has been partially effective due to dependency on human intervention and increased turnaround time. Many a time for the requestor, the wait is not worth for a small value request.

The constant evolution of technology and its applicability in addressing specific business challenges does provide a solution or the way forward to John's challenges. An Intelligent Procurement Suite is undoubtedly the answer.

Technology Solutions available

Tail Spend management solutions have been available in the market over the last few years. Of late, business-to-business marketplaces have been re-positioning themselves as Tail Spend management solutions to tackle challenges faced by procurement organizations such as John's to address Tail Spend challenges effectively. Large global organizations have invested in these solutions and have achieved early benefits. Over a period, the Tail Spend problem seems to resurface, calling for time and attention all over again. Can there be a definitive solution to John's challenges?

How to Move the Dot

The need of the hour is a comprehensive digital solution. An AI-powered application that can make existing Tail Spend management techniques highly effective by automating the end-to-end cycle of events – from analysis to execution. One that can offer real-time spend visibility to the organization, provide insights to proactively support better governance, and improve the end requestor's buying experience.

Data Management

The first step in effective spend management is having complete visibility to categorized spend accurately. The application should be able to extract data/ information from multiple existing procurement systems, unstructured data as well, combine it with external data feeds for enrichment. It must offer the best data mining and processing capabilities along with several machine-learning algorithms that can primarily automate cleansing, normalization, and spend data classification, by adding the necessary granularity required for Tail Spend management.

Intelligence & Insights

A rich foundation of analytics from a non-traditional perspective is the only way to completely address John's challenges, designed with the aim to provide a consolidated view of spend to support both strategic and operational decisions in a procurement organization. The traditional approach of determining Tail Spend by the 80-20 rule has been proven to be ineffective. Tail Spend is determined based on various other strategic parameters that can be pre-configured to help organizations gain visibility into "real tail." This becomes the basis for Tail Spend analytics, with further insights that lead to opportunities to aggregate demand, rationalize suppliers, rationalize price, and payment terms, — keenly sought after by decision-makers like John.

> Analyzing the spend alone is never enough to resolve the challenges that John has set out to address. An area that has not been in the spotlight is, 'what happens after the analytics is complete?' How does the procurement team ensure their recommendations from the analytics are applied by the requestors on a regular basis?

One of the approaches is to leverage more data that is already available within the organizations' systems. Analyzing the buying channels and buying behavior of requestors adds value. Such analytics can be combined with spend analytics to provide insights at a category level to support procurement managers devise better spend orchestration strategies. Getting end-to-end visibility into such detail empowers procurement managers with much-needed intelligence to spend governance. John and others will now have access to all information required to address the challenges with an intelligent tool that is largely autonomous.

Conversational Assistant

As described earlier, one of the key challenges is when the end requestor reaches out to the procurement team, seeking direction in placing a request for what they would like to buy. This challenge can be addressed by offering an AI- based conversational interface that's pre-trained to Sourcing & Procurement context. This interface will work by integrating with the existing procurement system already in use at an organization and support the overall spend orchestration strategy by directing the requestors to pre-configured buying channels and workflows. The design philosophy behind this interface that the user needs to know is what to buy, and not how to buy. Alongside directing the requestor, the application will also ensure that there are no incomplete purchase requests created. Relevant suggestions fetched from existing data can be presented to the requestor to help complete it. Most requests that would have otherwise been handled by the procurement team and spot buying desk can thus be fulfilled during the requesting stage itself. With the aim that no requestor leaves the application without placing the request, they are always directed to alternate and compliant options, including approved external marketplaces, and if needed, as a last resort to the procurement team. Once confirmed by the requestor, a request is automatically processed further as per the pre-configured workflow in the underlying procurement system, to complete the transaction. The conversational interaction additionally improves user satisfaction, and exponentially increases the adoption of compliant processes.

BENEFITS: PERMANENTLY REDUCE TAIL SPEND WITH BETTER GOVERNANCE

Autonomous spend orchestration	AI & ML powered supplier, price recommendations from existing data	Readily available "Real Tail" Analytics
Reduced volume of low value transactions	Conversational interface to execute category strategy	Single interface – to discover goods and services
Automated approval workflows	Optimized Supplier base	Satisfied End-user

Money saved is money earned

In Deloitte's Global CPO Survey 2019 [iii], 70% of respondents indicated that saving costs is a strong priority. The same survey found that consolidating spend is the top priority for organizations. This is especially relevant in times we find ourselves in today where there is a need for hyper-efficiency.

> Over 90% of procurement leaders agree that procurement will need to be more agile to respond to market changes [iv]. At EdgeVerve, we help our clients improve procurement health and amplify outcomes with our cognitive, connected solution ProcureEdge. We've helped deliver 5x improvement in productivity and 2x savings in costs through cutting edge technology and insights from our S&P experts.

Procurement managers can have complete control over total spend, with reduced complexity. Improved management of Tail Spend can free up capital for better investments in the future of the company. And there is no better time than now.

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September 2020

Document Extraction, Processing and Comprehension

The AI Led Next Step to Insights from Enterprise Data

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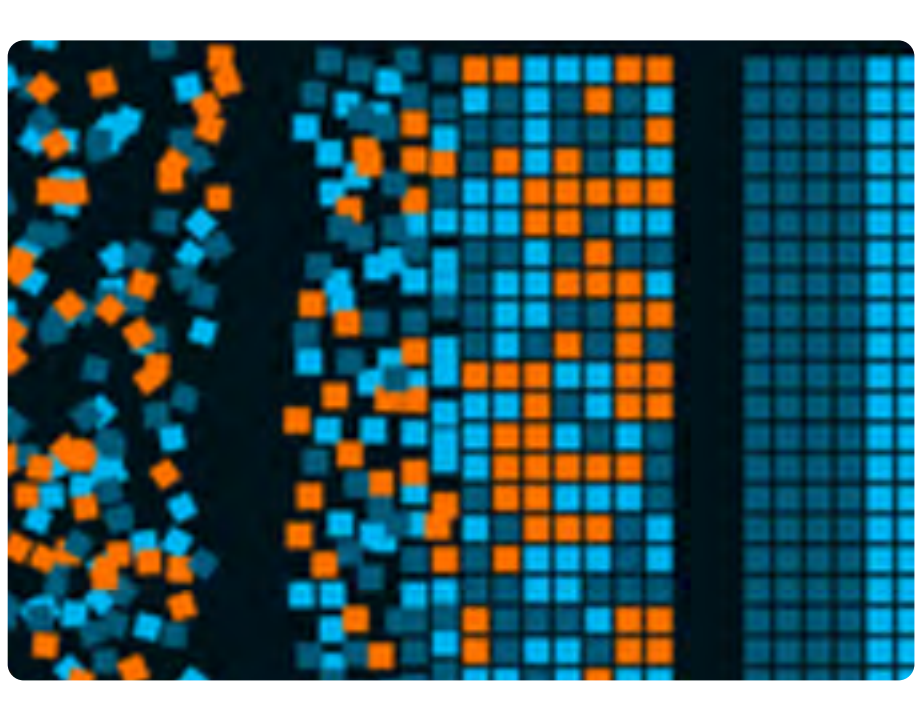


Summary

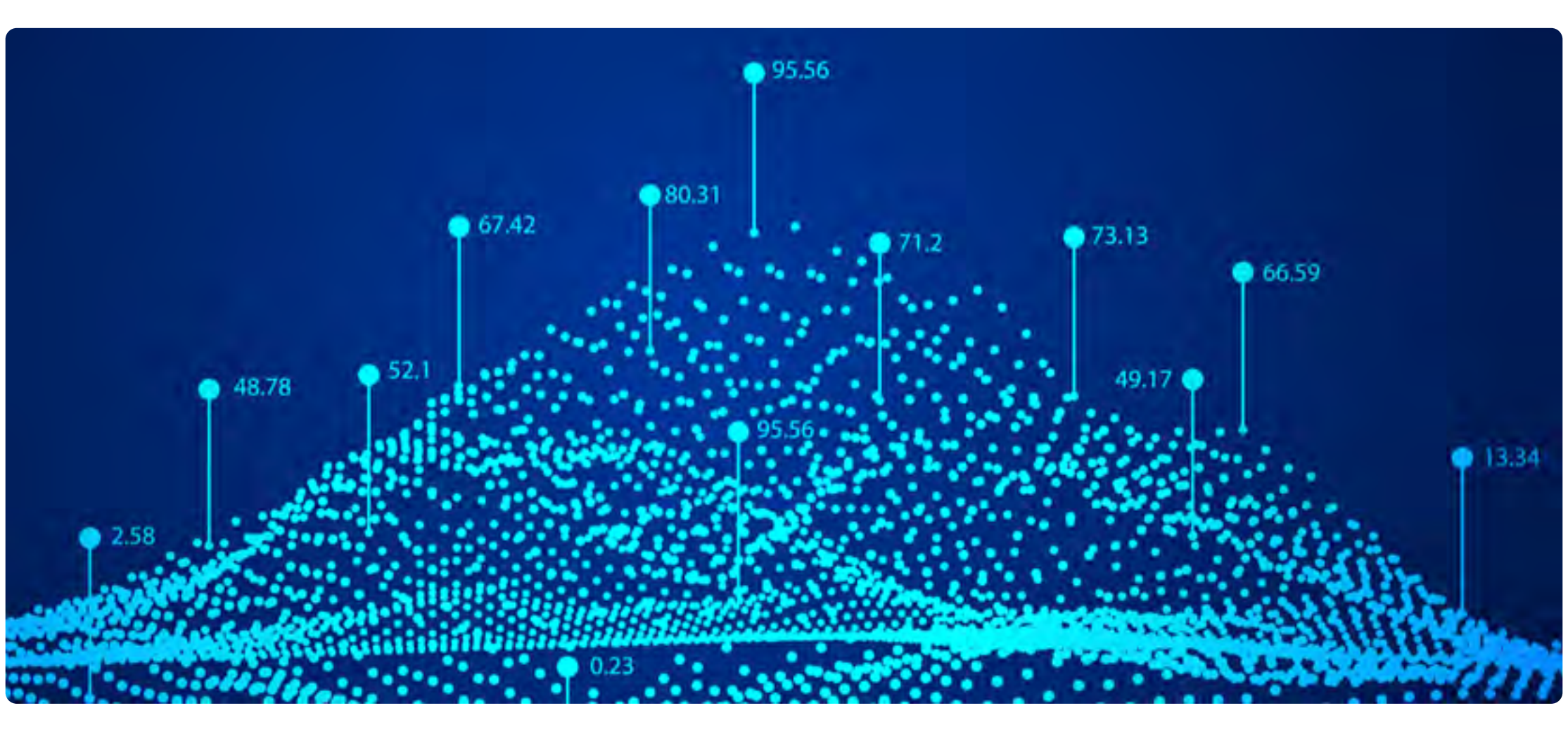
Around 90% of data within organizations is unstructured, and most of it is locked in documents or images. This information - if extracted, structured, contextualized, and made available on demand – could provide valuable insights for better business decisions. So, if these documents hold so much of value, what's stopping businesses from using these insights? The logical approach is to digitize these documents and structure the unstructured data to unlock insights. But the current technology in the market has its own limitations. Read this article to know how your enterprise can get access to hidden insights from a document with an end-to-end document extraction, processing and comprehension AI solution.

Recently, in the wake of the COVID-19 pandemic, one of the largest banks in the US on-boarded additional 500 consultants. The reason, they needed the extra manpower to manually assess and approve PPP (Paycheck protection program) related loan applications in a 10-day frame. An investment and effort that could have been easily avoided with the application of intelligent technologies such as Computer Vision, NLP, ML etc.

Analysts suggest that over 70% of organizations still have paper-based process dependencies [i]. Be it legal teams parsing contract pages, finance teams dealing with invoices, healthcare professionals dealing with patient data, clinical researchers sifting through R&D documentation, or procurement teams managing purchase orders, the burden of paper pushing is crippling business efficiency.

> Not only that, there is a wealth of information lying untapped in images, PDF files, printouts, and emails. Around 90% of data within organizations is unstructured, and most of it is locked in documents or images [ii]. This information - if extracted, structured, contextualized, and made available on demand – could provide valuable insights for better business decisions. And studies suggest that insights driven businesses can grow 8X times faster than the global GDP [iii]!

So, if these documents hold so much of value, what's stopping businesses from using these insights?



The challenge of unlocking insights from unstructured documents

It is humanly impossible to extract, process and comprehend insights from unstructured documents due to the sheer volume of documentation that happens on a daily basis. Sifting through all this information manually would take time, reduce productivity, and increase the probability of inconsistencies. Manual efforts slow down the decision making and impact not only the time to market goods and services but also, hamper organizational productivity.

The logical approach is to digitize these documents and structure the unstructured data. This information can be critical in flagging off alerts or kicking of appropriate processes to achieve the desired outcome without manual intervention. However, that's easier said than done. Document digitization technologies are faced with three key challenges:

Document complexity makes it difficult to unlock information

Complex layouts, different templates, and elements such as tables, signatures, handwritten text, and non-textual content such as images and logos need technology that can extract from and process all these different formats and digitalize them accurately.

Domain specificity requires customizable solutions

Each business has its specific document types ranging from waybills, loan applications, tax forms, invoices etc. and also a domain specific ontology. Any document digitalization tool needs to be able to understand this domain specific context.

Disjointed approach creates inefficiencies

Most solution approaches are disjointed as opposed to ensemble learning models and unable to efficiently solve the enterprise document problems.

Handling volume of documents

Most solutions do not provide the capability of handling large volumes of documents. This inability to scale projects impedes speed defeating the purpose of utilizing technology.

The need for an end-to-end document extraction, processing and comprehension solution

For enterprises looking at unlocking business insights from their document, the above challenges leave several questions behind:

- How accurate is the information captured from the document?
- What happens if document is scanned upside down or the image quality is poor? Can the information be cleaned up?
- How will multiple types of documents with different templates in the same batch be processed?
- Will the technology be able to understand everything that is being said and done in a document - sentiments, intent, implied information etc.?
- Can the technology provide a summary of the information?
- How do we address cross-document conflicts and duplications?
- How do I consume the information unlocked from the document

Every business has unique document extraction, processing and comprehension needs that require suitable technology solutions. **While building a solution in-house or leveraging open source technologies might sound doable, in our experience it's not very efficient or cost effective**. An end-to-end document extraction, processing and comprehension solution can take into account your specific business requirements and use cases based on type, volume, and multilingual nature of documents. An end-to-end solution can also offer proven ability in some of the critical success areas such

- Accuracy of document ingestion, clean up, and preparation
- Reliability of support for the languages that you operate in, and
- Domain ontologies specific to your business

> Most solutions available in the market do not address all aspects of document extraction and take complete ownership of this domain (Intelligent document extraction, processing and comprehension). The existing solutions can be clubbed into four categories – Document capture specialists (OCR, scanning etc.), Text Analytics generalists or natural language processing platforms, RPA platforms and Cloud based APIs.

What's actually needed to solve this document conundrum is a combination of AI technologies that work together in tandem *See Fig 1*.

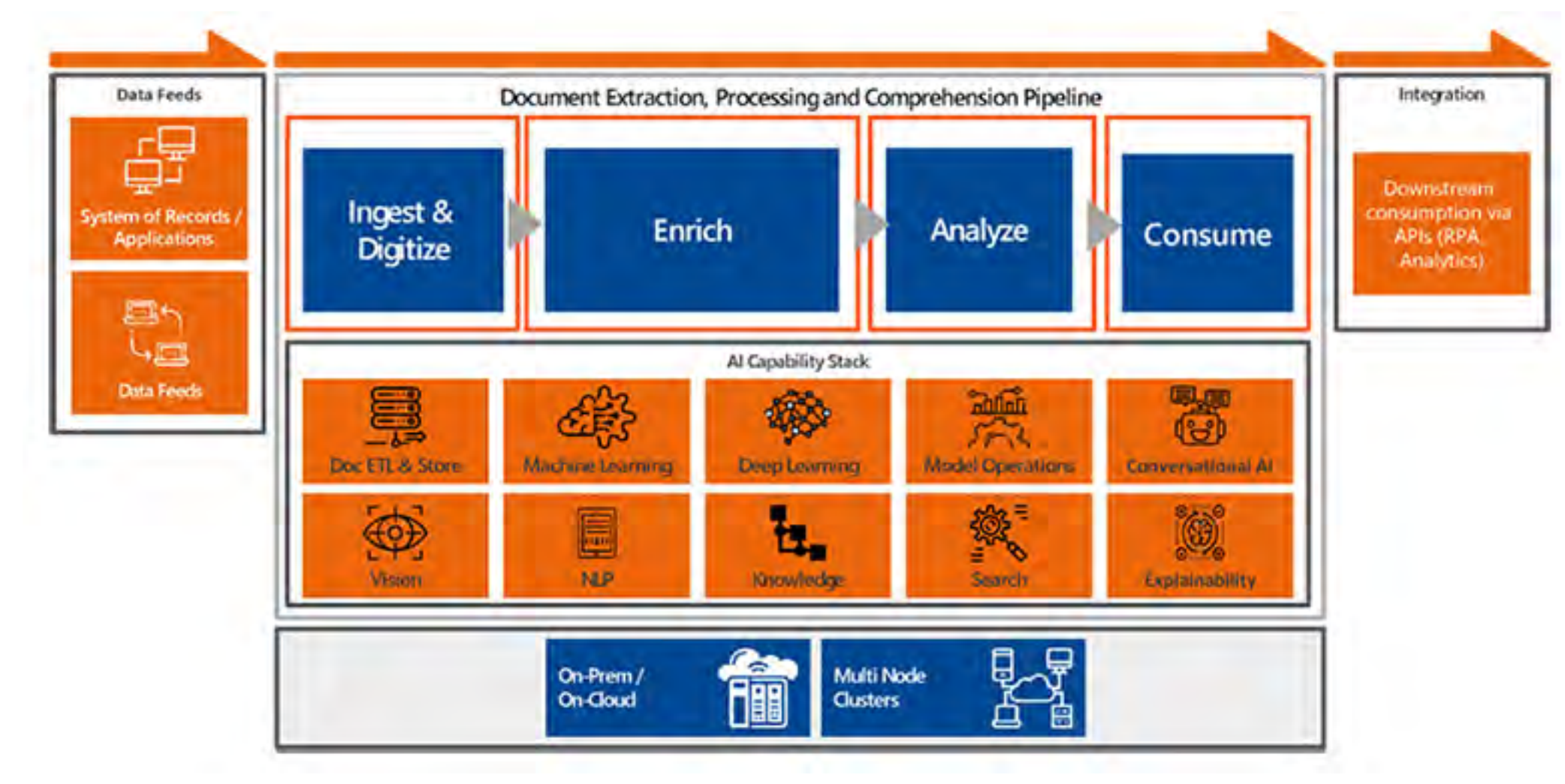


Fig 1: The building blocks of a document extraction, processing and comprehension solution

These would include:

Data ingestion

Collect and ingest data from various sources.

Sophisticated Pre-processing Capabilities

Computer Vision technology for enhanced image enhancements such as skew correction, gray scaling, clean-ups and watermark removal for poor quality images

Visual Object Detection

Ability to determine the difference between visual objects.

Handwriting Extraction

Ability to accurately and quickly process handwriting and handwritten documents.

Structure Agnostic Detection

Work with multiple document layouts and table types (bordered, borderless, nested) and handle page breaks with ease

Document Classification

Automated classification of document categories based on the document content or visual layout.

Modular and Reusable Architecture

Ability to quickly stitch Modular and reusable solutions for enterprise functions which need domain expertise.

Consumption

RPA and cognitive search capabilities for data consumption across business processes

Setting on the path to become an Insights driven enterprise

Extraction, processing, comprehension and consumption of information in documents is evolving. Enterprises are not looking at just digitization anymore and they are looking at insight driven consumption of that information. **The need is for on-demand, contextual information that can transform business outcomes.**

A one size fits all approach to document extraction, processing and comprehension does not apply in most enterprise scenarios. To successfully unlock business value from enterprise documents regardless of their complexity or domain specificity, a purpose-built document extraction, processing and comprehension platform like Nia DocAI is required.

With its advanced AI capabilities that use an ensemble of various Machine Learning and Deep Learning based techniques, flexible data management and analytics pipelines, Nia DocAI structures world's complex multi-document data, makes it consumption ready to unlock the latent business value.

Simplifying unstructured complexity for business gains

In the aftermath of COVID-19, we will see accelerated digitization across the enterprise. Not leveraging insights contained in unstructured documents can impact your process efficiencies and put your business at a competitive disadvantage. Why waste 100's of person-hours for work that can be done more accurately and efficiently by an AI engine? Why not give your employees a reprieve from repetitive manual tasks, and empower them for better decision making? Document extraction, processing and comprehension done right can help generate revenue opportunities, save costs, reduce compliance risks, improve operational efficiencies, and yield faster RoI. AI is integral to business success in the new normal, and the faster you adapt it, the farther you will be in business value creation.

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September 2020

De-risk your Business

Resilience with Intelligent Contract Lifecycle Management

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Summary

Every business deals with multiple contracts and disputes related to contracts often end up as litigation. The key issue in contract management lies in the ability to identify leakages and risks by finding relevant information on demand, in an easy to use manner. Most organizations have adopted one of the top Contract Lifecycle Management tools, but they often fall short on expectations and fail to impart intelligence in the process. This is where AI capabilities, including Computer Vision, Natural Language Processing(NLP), and Deep Learning come in to unlock value across the contract lifecycle. Read the article to know how your organization can make contract lifecycle more intelligent.

Managing contracts is a critical aspect of any business. According to studies, poor contract lifecycle management (CLM) can cost businesses as much as 9% of their revenues[i] and 5-15%[ii] of the contract's overall value . Contract related disputes often end up as litigation, eating up one-third of corporate profits in the US alone. **The key issue in contract management lies in the ability to identify leakages and risks by finding relevant information on demand, in an easy to use manner**. Corporate contracts may run into tens to hundreds of pages and on an average an enterprise has around 40,000[iii] active contracts . As legal teams battle with increasing complexity of contracts and the need to proactively manage them through the contract lifecycle, the usual suspects in digital CLM are falling short on expectations.

Most organizations today have adopted one of the top CLM tools in order to acquire key capabilities like creating online contract repositories, monitoring contract status, and managing contract requests from business (See Fig. 1). However, most of these tools are at best used as contract repositories with little to no intelligence from contracts available for decision making and unlocking value from these contracts.

Figure24. Industry adoption and use of automation	Aerospace, Defense	Banking, Insurance, Financial	Engineering, Construction, Real Estate	Healthcare, Pharma, Chemicals	Manufacturing Processing	Oil, Gas, Minerals, Utilities	Public Sector, Government	Services, Outsourcing, Consulting	Technology Software	Telecoms
Front-end contract request / selection interface to business unit	24%	47%	22%		38%	31%	33%	35%	37%	40%
Ability to assemble standard contracts from templates	35%	12%	22%		46%	17%	13%	50%	27%	40%
Ability to assemble contracts from a clause library	6%	0%	6%		38%	14%	0%	18%	13%	20%
Defined and automated workflow for non-standard terms or agreements	6%	0%	6%		23%	7%	7%	12%	20%	16%
Monitor reviews/approvals status	24%	41%	19%		46%	26%	13%	18%	30%	44%
Automated document circulation,redlining	12%	0%	9%		23%	17%	13%	21%	20%	16%
Risk scoring	18%	12%	13%		8%	17%	7%	12%	20%	32%
Repository of signed contracts	[illegible]	82%	34%		62%	55%	[illegible]	65%	67%	52%
Contract obligation extraction	12%	0%	0%		15%	7%	0%	26%	23%	24%
Post-signature monitoring of compliance with contract terms	18%	6%	6%		23%	12%	0%	18%	30%	20%
Integration with other key applications (ERP, financial Systems etc.)	18%	18%	28%		8%	31%	13%	12%	10%	12%
Management reporting / dashboard	29%	18%	28%		31%	36%	13%	24%	53%	24%
Contract analytics - individual agreements	6%	0%	3%		15%	10%	13%	21%	17%	12%
Contract analytics - portfolio of agreements	6%	0%	6%		15%	12%	7%	24%	23%	12%

Fig 1. Adoption of contract automation - Source: IACCM 2019 Benchmark Survey

Run of the mill CLM tools lack intelligence

While all CLM tools offer workflow to manage a contract, they lack the intelligence required to:

Prevent leakages through automated contract digitization

Every contract has value associated with it. But most organizations are unable to use this information as the CLM acts as a mere repository of legal version of the contract. It is unable to operationalize the same by digitizing this legal version of the contract. This leads to multiple challenges downstream including disputes in case of overbilling or incorrect billing or missed opportunities on account of under billing or excess discounts.

Reduce the cost of legal and business operations effort through effective automation

By failing to prevent billing disputes & compliance checks, regular CLM tools are unable to reduce the time and effort spent by the business operations team and the number of cases that require reading contracts and legal support.

Ensure regulatory compliance and prevent negative market sentiment

It's not easy to find all contracts that are impacted by a new/updated regulatory compliance. The CLM tools do not have the ability to create a contract hierarchy to find latest commercial and legal terms from any contract which is very important to understand the impact of regulatory compliance on a contract.

Increase revenue with new business models powered by digitizing content

Regular CLM tools cannot provide insights - with data digitized from contract and/or other similar documents and integrated across systems - that could help a company create new business models or find areas for savings or revenue uplift by co-relating contracts of similar customers.

Stay in the know: Do you have the power of right information?

Every organization has a process to evaluate current contracts for current value, risk, completeness etc. Before someone decides they should renew a contract they need to know everything about the current contract. Therefore, even before a contract is drafted, there is need for a deep dive into the existing information. This research can be time consuming, but if not done right, it can leave a lot of risk on the table, even to the extent of disrupting the organization's business.

Unfortunately, present CLM tools are inefficient and lack intelligent search capabilities that can help finding information using natural language queries. So, if a company wanted to check how events like GDPR, Tax Law changes, and Force Majeure are impacting them, they would need to use up a lot of legal bandwidth to identify the impact. For instance, the CLM tools would not be able to show them all contracts where a force majeure contract is available and whether it offers pandemic coverage. Without reading the document, they would not know if there is provision for a termination for convenience and if so, what is the notice period. They would be hard pressed to find out what are the other performance criteria that get triggered

Time is money: Is your contracting process agile and efficient?

Once a contract request is received, the actual contract creation goes through multiple stages – drafting, negotiation, approval and signatures, and storage. This process, starting from the drafting stage, is suboptimal in most companies.

Drafting

CLM tools typically provide templates that can be used to draft the initial contract versions. However, there is a possibility that users pick up incorrect or obsolete templates and insert irrelevant or old clauses in the contract. In absence of a set of legal mandates in the tool, the legal team has to review every contract. This makes the process time consuming and can take weeks and sometimes months to finish.

Negotiation

Even after the contract is drafted and sent to the other party, there is much to be done manually in the negotiation phase. For example, if a supplier changes a clause, or the value of a liability, or if they remove some section of the coverage, or change payment terms that impact cash flow then the current tools can't tell you whether the change is positive or negative for the organization. Also, they can't identify what's the risk, the change brings in whether it is an acceptable risk. This means that when a redline comes back, the legal team must review the entire document again and this adds time to the contracting lifecycle

Signing and storage

Once negotiations are complete; the contract needs to be signed. In contracts that run into 50-100 pages, checking that all signatures are done correctly and in the appropriate places is also a task. The signed contract is uploaded in the CLM tool usually as an image or PDF file and contract metadata extraction is done manually. This process is rife with inaccuracies and contract search suffers due to incomplete details and incorrect versioning.

Stay compliant: Is your ERP in sync with your CLM tool?

Once a contract is signed, business needs to ensure compliance with the terms. Most organizations have two versions of a contract – a legal one in the CLM tool and an operational one in the billing and procurement or ERP systems. More often than not, these contracts are out of sync, creating non-compliance issues that impact reputation, relationships, experience, and loss of business.

Unlock value across the contract lifecycle with Artificial Intelligence (AI) for Contract Analysis

AI in Contract Analysis enables intelligence across the contract lifecycle management and helps users make contract data-based decisions or work based on information in contracts. **AI capabilities, including Computer Vision, Natural Language Processing (NLP) and Deep Learning helps locate specific information based on complex criteria from lengthy documents and isolates it for users to monitor, review and update**. Organizations have transformed their entire Contract Lifecycle processes by leveraging AI in Contracts Analysis:

- One of the world's largest telecom company has successfully leveraged AI to unlock millions of dollars in savings from their lease contracts by getting intelligence on key clauses like the rent reduction and capital refund.
- A large banking organization is successfully leveraging AI for Contract Review Automation, helping them reduce turn-around time for reviews by 90%.
- A multinational Hi-Tech conglomerate's procurement team with 5000 buyers globally is using AI for Contract Analysis to identify non-standard language and reducing risk to their organization's supply chain.

AI helps unlock value, minimize risk and increase compliance across the contract lifecycle ***See Fig. 2***

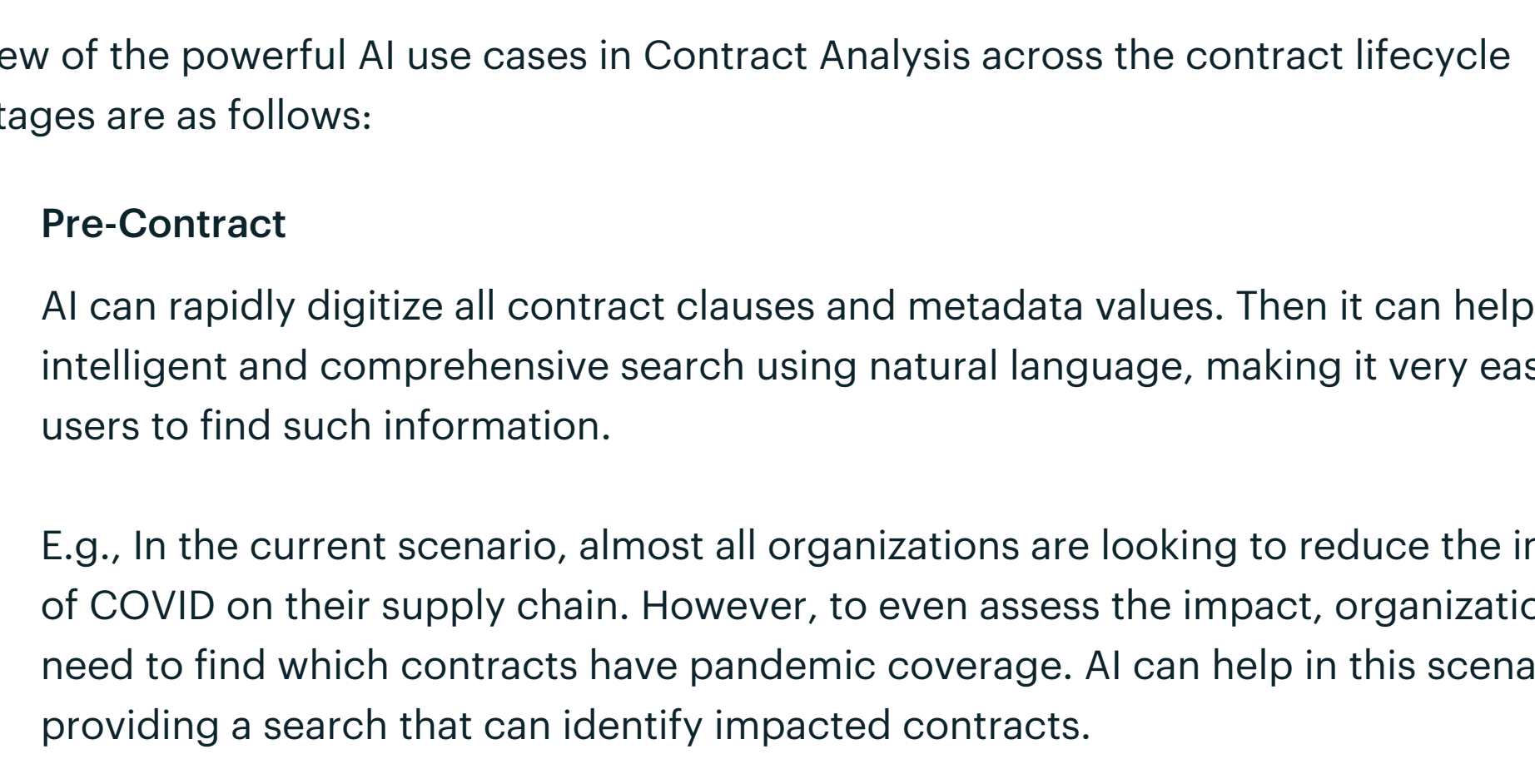

Fig 1. Adoption of contract automation - Source: IACCM 2019 Benchmark Survey

Few of the powerful AI use cases in Contract Analysis across the contract lifecycle stages are as follows:

Pre-Contract

AI can rapidly digitize all contract clauses and metadata values. Then it can help enable intelligent and comprehensive search using natural language, making it very easy for users to find such information.

E.g., In the current scenario, almost all organizations are looking to reduce the impact of COVID on their supply chain. However, to even assess the impact, organizations need to find which contracts have pandemic coverage. AI can help in this scenario by providing a search that can identify impacted contracts.

In-Process Contract

AI can help in reviewing all contract documents and highlighting risks in a clause. This feature is unique as it keeps the legal review process agile and highly effective. Moreover, the risk parameters can align with the organization's legal guidelines. This is highly effective in scenarios where legal does the MSA review, and SOW linked to the MSA is generally not reviewed by legal, which brings unwanted risk for the organization.

Post-Contract

AI can help build contract hierarchy post-execution, which helps in the identification of the latest values from a contract. This metadata can then be extracted and updated in underlying operational systems like ERPs and billing systems to ensure that operational and legal versions of the contract are in sync, ensuring Contract Compliance in the organization.

There are multiple other AI use cases for Contracts Analysis like:

- Simplifying contract signatures by marking areas that need to be signed, and checking if all required sections have been signed.
- Track contracts that are coming up for renewals and providing an opportunity for teams to avail of any discounts associated with timely renewals.
- Post-merger integration is another area where AI can help. By extracting metadata from the contract like total value, liability and indemnity, and linking it to the operational data, an organization can quickly find about the health of the acquired company. It can help understand the supplier, customer and regulatory obligations of the acquired company and highlight synergies and discords in contract clauses to reach business-as-usual quickly.

Not all AI for Contract Analysis are created equal

Just like every business is unique, all AI solutions that claim to add intelligence to Contract Analysis are not the same. Any organization that wants to evaluate such solutions should look at the following key criteria:

- Accuracy of Model Output
- Processing speed and speed for retraining
- Experience of handling enterprise scale data
- Built on advanced enterprise grade AI platform
- Domain/Industry Agnostic
- Supported by expert Legal AI team that takes bottom line on the output

> Infosys Nia Contracts Analysis is an AI product to help organizations get contract visibility, automate contract reviews, reduce legal risk, increase contract compliance, and unlock business value locked in their contracts in a rapid manner.

It integrates with existing CLM systems and contract repositories and enables intelligence across the contract lifecycle management, thus helping users make contract data-based decisions or work based on contracts. It extracts and digitizes the contract data, enables multiple use cases like intelligent search, and enables organizations to build consumption use cases and analytics for business. Nia Contracts Analysis also brings together a comprehensive learning methodology along with the unique concept of a Parallel Neural Pathway- that helps AI to understand documents like humans while using humans in the loop for strategic work. With its cutting edge AI, Nia Contracts Analysis has delivered excellent business benefits to customers within the first few months and has replaced top vendors in this space. Its value proposition goes beyond just productivity to actual measurable business benefits by minimizing leakages.

Weather storms with a resilient contract management process

This has been a time of uncertainty and unprecedented change. In just a few years, we have seen high impact events like Brexit, LIBOR transition, new lease accounting rules, CCPA, GDPR, and Force Majeure invocation due to COVID-19. Navigating through reams of legal contracts every time an unanticipated change happens can be taxing – both in terms of effort and cost – and risky. For example, many companies are now finding out that they cannot invoke Force Majeure because their contracts do not have the clause for pandemics covered in it. Arriving at these insights and taking quick – and sometimes preventive – action can help minimize contractual impact.

Turbulence is the new truth of the business landscape. Business leaders must re-look at contract management and invest in technologies like AI and automation to navigate a whitewater world. Getting intelligent contract management in place would be key to identify opportunities for cost cutting and revenue protection – something that will be key for survival in the post-COVID world.

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September 2020

Sharing is Preparing

Reimagining Business Continuity for the New Normal

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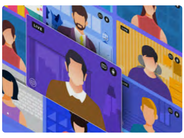


Summary

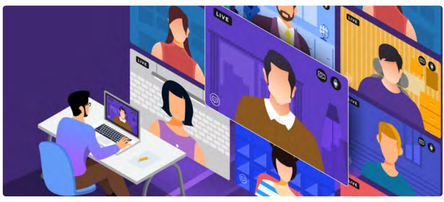
COVID-19 has drastically changed the way we work, live and operate. It has forced enterprises to ponder about how resilient are they? How quickly would they be able to shift gears from recovering to living with the new reality? Along with multiple sections of enterprises, a critical component, global shared services are also now finding new ways to mitigate the long-term impact of this seismic shift. This article will discuss the tools and solutions that shared services can use to become more resilient to disruptions.

The Truth is Here, and It is Not Kind

The verdict is clear. In the face of COVID-19, yesterday's business continuity preparedness and disaster recovery measures have failed. With a majority of Fortune 500 companies using some form of the shared services model, it is safe to say that resilience in shared services can positively impact enterprises. With the traditional model falling short, efforts to reinstate stability using past techniques are destined to fail. Shared service leaders need to transition to a more resilient model that protects their people, services their customers, and secures business support of the future.

> An EdgeVerve-commissioned SSON survey[i] revealed that Shared Services leaders are finding their ability to hit SLAs has diminished significantly. Combine this hurdle with the fact that nearly a quarter of the 200 respondents reported losses greater than 40% and it is easy to see the gravity of the challenge.

At this point, a crisis by any yardstick, as the engine room of a company, business process operations are more critical than ever before. These include finance, supply chain, procurement, human resources, marketing, sales and customer operations, and industry-specific services such as health, insurance, and banking. In many MNCs, complex and business-critical services managed by global shared services operations need to be reassessed and restructured to ensure their effectiveness in supporting businesses. The task is as complicated as it is critical. How can shared services maintain business as usual when most of the workforce is expected to operate remotely with virtually no office time and face-to-face interactions?



Normal Behavior in Abnormal Circumstances is Abnormal Behavior

It is essential, albeit obvious to state that considering such challenges, **the need for remote working arrangement alongside a robust and fast-tracked digital transformation plan is imperative**. The world is now operating in a post-digital era, with digitalization being a basic expectation of consumers and businesses. COVID-19 has made it crucial for companies to reconfigure their operations and transform from the ground up. While not the panacea, automation can help cover process gaps, and it should be the first step in future-proofing enterprise operations. Let us understand how.

Increasing the effectiveness of remote working environments

Intelligent automation can enhance the effectiveness of individuals working from home without the processing power an office may offer, either due to technical or access restrictions. In several instances, processing speed has been adversely affected, reducing execution efficiency and hampering SLAs. **Automating transactional processes and focusing on value-led proactive operations driven by data and analytics will reduce the stress on operations while helping processes operate critical business functions during emergency events**. Furthermore, this model can also provide access and interfaces with key tools and applications. In the absence of on-side interaction and communication, it can also assist employees with questions relating to internal processes and meeting needs. For the remote working model to succeed, shared services must embrace holistic agility, redesigning traditional BCP with a dynamic approach that blends business strategy and intelligent technologies to create sustainable long-term value.

The Effectiveness of a Distributed Global Services Model

In my own experience at ESAB SSC, the changes caused by the pandemic were overwhelming as they drove the single largest migration of people to a work-from-home model. From productivity and business continuity to operational agility, there were challenges on every front. However, **adopting a distributed global services model powered by intelligent technologies allowed us to deliver high performance without disruptions**. The problems need to go beyond keeping the lights on and instead should operate from the perspective of sustaining continuous growth, learning, innovation, and excellence. Our operations team successfully enabled data, intelligence, and insights to be available instantly, ensuring that our process teams always had the support they needed to make smarter decisions. **By using leading workforce solutions alongside data mining and RPA platforms, we were, in fact, able to become even more intelligent and integrate resilience into the business at every level**. We are not predicting the next crisis, but we are prepared for it, and automation is central to this achievement. The current situation has shown us how important it is to be flexible, proactive, and agile, making an investment in intelligent automation solutions a quintessential component of our business continuity planning.

The Effectiveness of a Distributed Global Services Model

Amid all the talk of automation and efficiency, it's easy to get lost in a transactional mindset that focuses on purely quantitative gains. Even in the case of shared services, exponential growth and sustained success rely heavily on accentuating human contributions. In its latest iteration, intelligent automation enhances human effectiveness, supporting creativity, communication, and empathy with extreme efficiency and accuracy.

> The human-machine hybrid models, where routine tasks are automated, and everyone is a knowledge worker, enable shared services organizations to become intelligent at the core, empowering them with intuition and insight in the face of the unknown. Supported by AI, analytics, and smart learning initiatives, a human-digital twin will transform the enterprise value creation paradigm.

With a laser focus on business impact, the human workforce can redirect its energy to focus purely on solving complex problems and exceptions routed to them by their machine counterparts. Research firm Horses for Sources (HfS)[ii] makes an articulate point, stating that, "if there's ever been a time we needed a digital workforce to augment humans, it's now.

Catalyzing the Next Phase of Enterprise Evolution

As much as I talk about the impetus automation and technology can provide, success at scale requires two fundamental social skills. Empathetic leadership and effective communication are vital to ensuring growth during this period of immense change. **The ability to respond to emerging risks, build a learning organization, and balance resilience, resourcefulness, and RoI will be the making of the next wave of leaders who can catalyze enterprise growth**.

We are at an inflection point that could drive substantial results. How shared services use this opportunity could define a new roadmap for enterprises to become resilient, scalable, and adaptable, ready to take on challenges both during and in the aftermath of COVID-19.

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September 2020

Don’t Let Them Get Away

Ensuring Digital-first Customer Preferences Post Pandemic

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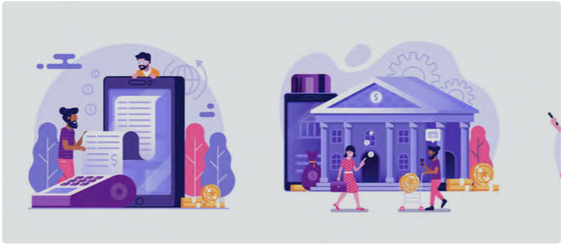
Summary

The ongoing pandemic has been a defining moment for digital adoption. Customers, across all segments and demographics, engaged digitally with banks more than ever before. In fact, many intend to cut back on branch banking permanently. While that is remarkable, it’s not nearly enough to create a definitive shift to digital. Read this article to learn how banks can keep customer hooked on digital banking in the post-pandemic world and engage them profitably at population scale.

A good side effect of Covid 19 is that it has forced progressive thinking among industry: in a recent study by a global consulting major, more than 80 percent of businesses worldwide acknowledged that digital transformation has become more urgent, and that it is motivated by customer-facing goals (90 percent said this)[i].

For digitally evolved organizations, this is old news, given that engaging customers and fulfilling their goals have been the most important pivots of transformation programs for many years now. From a bank’s point of view, the goals are simply to help customers save, borrow, invest, pay and manage their finances better. For banks that lag digitally, adding new channels or adding new capabilities on existing digital channels will certainly help them meet customers’ transactional goals better, but will it sustain digital adoption once the pandemic has passed?

With the digital acceleration seen in 2020 post COVID, it is expected that some markets will see 25 percent[ii] fewer branches and the remaining ones doing a different set of activities. While that is something, it’s not nearly enough to create a definitive shift to digital. To keep customers hooked on digital banking, banks must expand their efforts; specifically they should go beyond merely servicing customers to engaging them at population scale.



In general, any cycle of engagement has three main goals:

- understand customers deeply,
- offer personalized insights, and
- guide customers along the best path of action.

With the amount of direct and derived data that is available to them, banks can take customer understanding to a whole new level:

- they can gather financial data across banking institutions and relationships to get a complete picture of each customer’s financial status;
- use situational data such as present location and activity, to understand immediate needs;
- tap social media activity to learn more about a customer’s peeves and preferences.

While this data was always there, today banks have the algorithms to extract a “customer genome” from structured and unstructured information that they can use to create a digital twin and deliver highly personalized insights of increasing analytical sophistication:

- Descriptive insights in the form of visual inputs and categorization that inform customers about the happenings in their financial lives.
- Diagnostic insights that explain the reasons for the above (for example, you saved less because you spent more on entertainment).
- Predictive insights that present what is likely to happen, such as a cash flow crunch or potential penalty for tax non-compliance.
- Prescriptive insights that nudge customers along a recommended path of action, say, balance cash flow, rebalance portfolio, cut discretionary expenses, move surplus money for better returns etc.

Importantly, customers must be able to act on these recommendations without encountering friction; hence banks should look at embedding those actions within the relevant customer journeys – for instance, by including a link to a recommended credit card promotion that pops up at the end of an ecommerce journey; or putting a button that customers can click to move surplus funds to a money market fund suggested by the bank. The bank’s goal should be to build enough confidence among customers that they eventually consent to many of these actions being automatically carried out without their express authorization. That being said, not every action can be automated, or executed via self-service; many actions still require the guidance of bank staff, who must also be augmented as part of digital transformation of engagement so they can be more effective.

Finally, factoring external stimuli is as important as building internal readiness for successful transformation. Banks that do so will be able to meet customers’ goals better. This will not only help to retain customers in the short term but also ensure they stay with digital banking long after it is safe to step into a branch.

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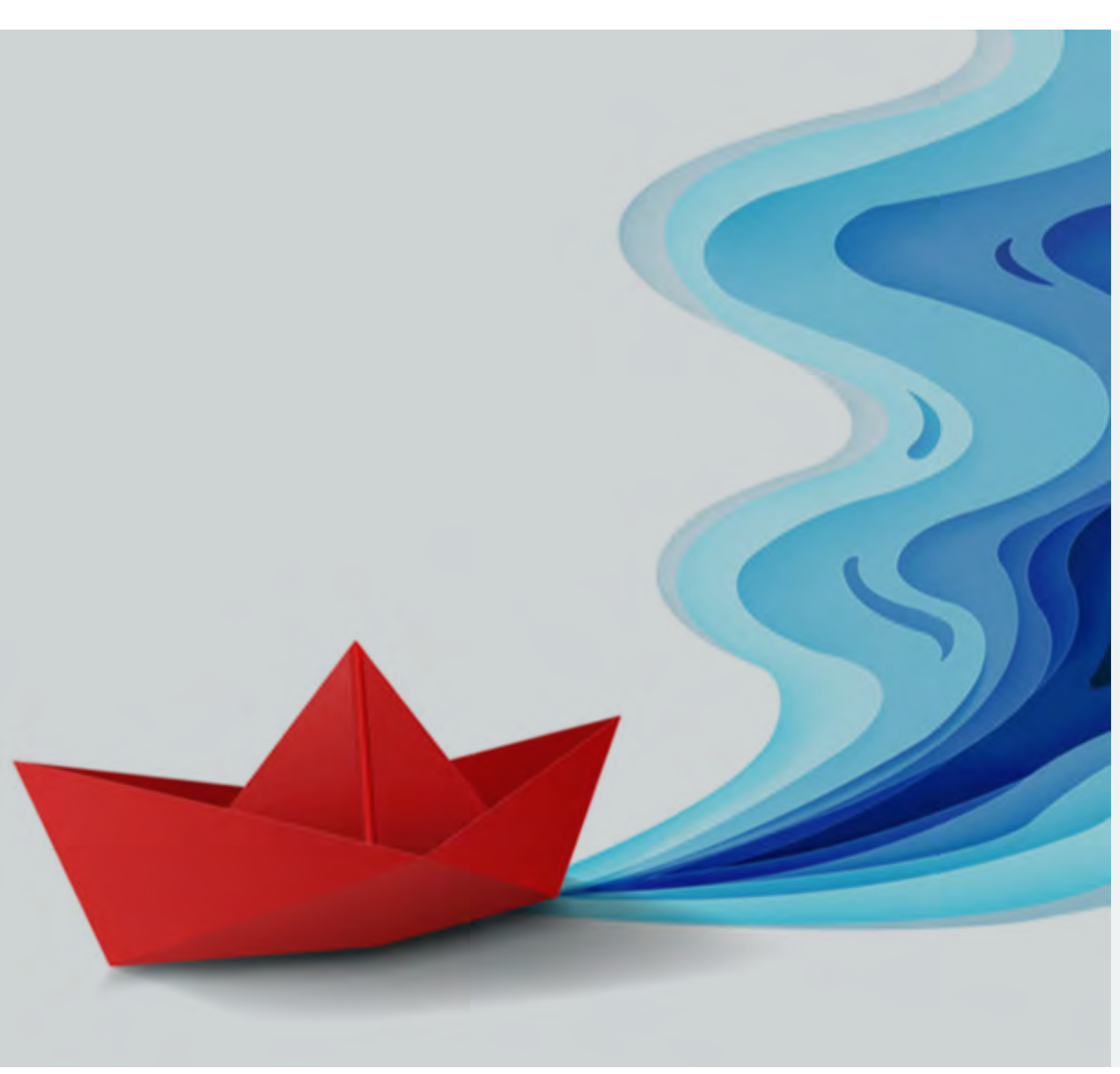
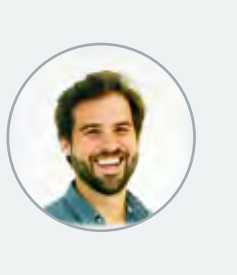


September 2020

Leadership Traits for an Unwritten Future

Key Traits for Business Leaders



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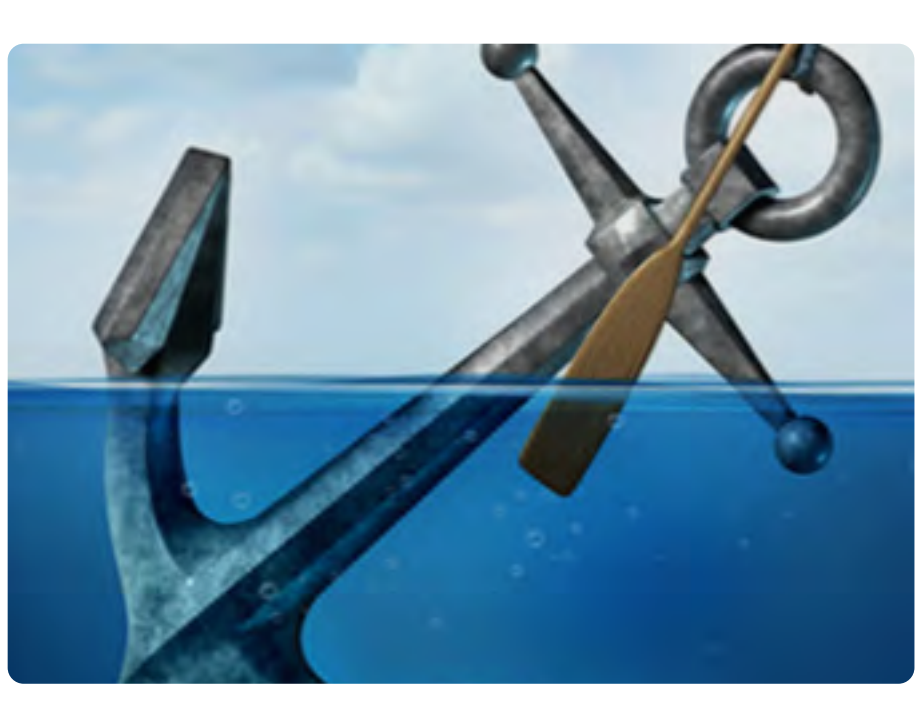

Summary

A world crisis like this is a great opportunity for leaders and their businesses if navigated smartly. It's an opportunity for trial and error of new innovative business streams, for reshaping stronger and more effective teams, for exploring big growth moves, and for building strong, trusted relationships with your clients. Read this article to understand the 5 key traits that business leaders should possess to thrive in crisis.

No one could have predicted how 2020 would play out. Media calls it a textbook Black Swan event. But is it?

A Black Swan is an event so unpredictable that it's beyond what we can predict or prepare for, and that can have a severe impact and inflict catastrophic damage to an economy. On the list of past Black Swan events are the 2008 U.S. housing market financial crash, the similar dot-com bubble of 2001, or the 79.6 billion percent Zimbabwe hyperinflation case of 2008.

We can all agree on the similar catastrophic economic impact from COVID-19 so far and the grim forecast for multiple sectors of the economy; but what's different from the events highlighted above is that this time it was entirely predictable and will happen more frequently in the future.

Pandemics, epidemics, and disease outbreaks are not unusual. They have been registered in history for centuries, with many of them having similar global impacts at the time.

We had enough warnings and data to say COVID-19 was predictable and the same data predict pandemics will be more frequent in the future. Bill Gates told the world in his now seemingly prophetic 2015 TED Talk that the next global threat to humanity would not be a war, but a global influenza pandemic. He added, at the time, that we weren't ready for it. He was right. We did not have the supplies, the protocols nor the data infrastructure ready. It became uncharted territory for almost every organization.

But companies that have been managing well during 2020 have been the ones where their business leaders used this forced opportunity for adapting and shifting their business practices. Showing that it's time to start acting differently, to lead with short- and long-term adaptability planning. It's time to rethink how businesses are operated, how they can be more efficient, how they can add new value to their clients and how they can find new clients; and to reshape organizations to shift to behaviour and mindsets more fit for a new way of operating. Building a resilient business will demand that leaders balance between fallback plans and growth momentum.

These are 5 key traits that business leaders should possess to keep their businesses resilient and growing during a crisis:

Adaptability

Unfortunately, business leaders' crystal balls have become fogged and can no longer be trusted, but there's certainly value in expecting the worst, planning for it, and reacting quickly if needed. The sooner you start practising backup planning and adapting to new plans when necessary, the more efficient the process will become, and the less of a burden on the organization this will be. Business models should be rewritten to embed short and long-term adaptability.

> Business leaders should be humble and avoid the temptation of sticking with decisions made using outdated data. Do keep reviewing your data and keep adjusting your team goals based on objective, good-quality, and trustworthy information, and shift course whenever needed.

Use this year to review your company data and how it is processed, so you and your organization can read it more clearly and faster.

The world has never changed so fast and unpredictably as now, in a time where geographical, political, and big economic decisions change without much warning. Being an ostrich leader may run your business into the ground alongside your head.

Empathy

Teams always have big expectations from their leaders. They expect leaders to be perfect, dedicated beyond a life-work balance, and often forget they are human. But the more human business leaders are with their teams, the more those same teams trust and empathize with them. And in times like these, where people live in constant uncertainty, and where they are facing more stress than before, the need to empathize and pay careful attention to employees' needs is paramount.

By the time we go back to a new and more predictable normal, a part of your staff will be experiencing some level of trauma and loss – whether in their lives, due to health or economical suffering from someone they know and care; or in their workplace, due to colleagues that have lost their jobs, or the sense of struggle and lack of control new job practices have put on them.

> Business leaders have to create a culture where there is time to discuss loss and stress, and address the emotional impact on their staff, taking the opportunity to highlight their company's purpose and values where relevant, and how a brighter road lays ahead. Don´t delegate and instead, take this opportunity to be the face of an open and nurturing company culture.

Moving fast and effectively on building empathy as a business leader will help your teams rebound faster and will set up a stronger foundation for success on similar challenges ahead, building a more motivated workforce.

Vulnerability

Business leaders are being called upon to take on decisions they were never trained for, even related to their team's health regarding working from home, or when is safe to return to the office.

> Be open in exhibiting vulnerability by lowering your guard, and demonstrating how you feel. By sharing your concerns and uncertainties, you present others with the space to share their experiences as well. Once people have the space to share their raw emotions, they become more able to tap into their generosity, wisdom, and strength as a team. You will be seen as more approachable, relatable, honest, optimistic, and grounded.

An example was the May 5th, Brian Chesky public letter addressing his Airbnb employees regarding the layoff of 25% of staff globally. A very difficult moment not only for any CEO, but equaly difficult for any business and brand. By being very transparent and embedding his feelings, he portrayed himself and the company as very human and relatable, and transformed a delicate PR moment, into very a positive one, where his letter was shared and praised by millions.

Remote Teams Management

Before 2020, the concept of true remote teams – where employees routinely work from home – was reserved for a handful of tech companies. For everyone else, proximity was a necessity.

The office was where employees worked, and even the location of the office, whether around the world or inside the city, also affected business performance in most industries. But most businesses around the world were pushed suddenly into remote working.

As Microsoft CEO Satya Nadella said, "We've seen two years' worth of digital transformation in two months." The quarter is the new year, and the fastest will win. Some were better prepared than others, but it has been a quick and steep learning curve for all. When I look at the road ahead, I see a future where staff, or parts of it, will work from home. I see an opportunity for presenting employees flexibility as a perk, for cutting fixed costs in workplaces, and for tapping into a much larger pool of talent, without the hassle of visas, relocation, cultural adaptation, and in most cases, with decreased human resources costs.

> But managing remote teams is a new challenge. Employees are adjusting to it, and they are confronted with unfair challenges: children and pets, mediocre office ergonomics at home, unlimited distractions, and lack of accountability. Business leaders need to make their communication and goals more clear, transparent, more frequent, and open to feedback from all stakeholders to keep a healthy dialogue in place.

What starts as a challenge can become an opportunity for collaboration across the globe. With COVID-19, our Superunion team in London feels as close as the Superunion team in Hong Kong or Sao Paulo. The only barrier is time-zone and in very few cases, language. But all those are minor barriers. COVID-19 disconnected us physically from the colleagues we used to sit next to, but connected us virtually with everyone in our agency network, no matter where they are located. This means we can truly source globally for the best talent in our network to place in a client project, creating stronger project teams. We can also work more efficiently around the globe, taking advantage of multiple time-zones, and drive through progress faster due to seamless continuity.

It's also an opportunity to explore all the new cloud tools available to managers that have spawned across the last decade, understand the ones that are practical and applicable to your business operations, and invest further in virtual team collaboration. Integrate these digital tools across your network, and standardize work procedures, so anyone at any time can plug in or out, independently of geographical company culture, language, or time-zone.

As higher data bandwidths across the globe expand and become more accessible, digital tools only previously available in a physical, centralized workplace will make it possible to access computational power or tools from any device – reducing investment in hardware and IT per worker, and allowing businesses to scale their workforce faster to be more reactive to the market.

Envangelist for innovation and transformation

In 2020 many businesses and sectors were forced to innovate. Education being one of them, where teachers from all ages and all around the world were pushed into remote teaching, using technology they never had proper training for. Even though it was a forced leap forward, it was one that will bring much effectiveness and value.

Other sectors have not faced such an obvious necessity to evolve in their digital transformation – but that can be more dangerous. Business leaders in these sectors may not have felt the need directly, but that doesn't mean change isn't happening and your competition isn't already taking advantage of it.

When Winston Churchill was working to form the United Nations after WWII, he famously said, "Never let a good crisis go to waste". This is still pretty good advice. The market is ripe for innovation, risk, and transformation. Not only for the world but for your team and your clients. The average person doesn't hope for change in their workplace, their job responsibilities, or their company business practices, but this year, people are more ready and willing to adapt. Innovation is accepting risk and failure into the business equation, and currently, the market is more willing to accept failure caused by progress.

> Prepare your business for secured continuity, using more computer automation on tasks and pipeline sections when possible. The dependency on workplace-bound jobs will diminish, and help you tap into a remote workforce more naturally, and make your business more resistant to similar future pandemics or outbreaks.

During past world crises, companies with resilient, future-ready, and innovation-focused business models have grown away from their competitors, and the ones with legacy or stale business models have fallen behind or didn't survive.

There's a long list of companies that were perfectly positioned for innovation and were leaders in their industry, but due to their risk-averse vision or long development times, were left bankrupt or eclipsed by smaller competitors that took risks. On this laggard list are names such as Nokia, GM, Atari, MySpace, Compaq, Blockbuster, Kodak, and Toys'R'Us.

On the other side of this spectrum are names such as Nike, Apple, Google, Netflix, Spotify, Amazon and Alibaba. These companies have an internal culture prone to inspire ambition, they put their talent first, manage their innovation funnel carefully, and grant their innovation teams wide autonomy and power.

Conclusion

A world crisis like this is a great opportunity for leaders and their businesses if navigated smartly. It's an opportunity for trial and error of new innovative business streams, for reshaping stronger and more effective teams, for exploring big growth moves, and for building strong, trusted relationships with your clients.

But this opportunity demands business leaders that can excel in more and broader areas, who are more generalist in their skillset and that can embed risk in their operating model while managing limited crisis budgets.

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