

Bolstering a meaningful coexistence in the digital epoch

The dynamic relationship between humans
and machines in the digital era

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Business Process Operations to Digital Process Operations: A Tale of Transformation

Survival of the Fittest among Enterprises

In the current competitive business environment, enterprises and business leaders are continuously assessing strategies to adapt to prevailing market and customer dynamics and making changes to their initiatives, both internal and external. Since COVID-19, the perspectives and business priorities of organizations have changed dramatically, with more emphasis being placed on resiliency, preparedness, scalability and agility. To survive and even thrive in these challenging times and to maintain a competitive edge, businesses are trying to constantly innovate and pivot. Many businesses have turned to technology to combat the challenges thrown up by the COVID-19 disruption. For example, restaurants have pivoted toward online food delivery services and takeout; brick-and-mortar stores have recognized the benefits of e-commerce, redefining the shopping experience; and even industries such as health care, which is reliant on face-to-face, in-person

interaction, have adopted the online consultation model wherever possible. It has become imperative for enterprises to invest in digital technologies to be more proactive enhance scalability. To address changing customer needs, not only are businesses turning toward technology, but also business leaders are now expected to be more proactive in their approach to gaining competitive advantages and meeting customer demands. With technology augmenting human capabilities, humans are now more focused on driving critical business outcomes by moving away from routine tasks.



Redefining the Roles of Business Leaders

The pervasiveness of the digital world has brought about higher expectations and a significant change in the role of employees. With technology arbitration and its ability to take care of conventional tasks, humans are pushed to think unconventionally, in keeping with the fundamental change in the mindset of organizations in the COVID-19 era. Traditional roles have evolved to serve the overall development and growth of an organization. Business leaders are now required to deliver outcomes that align with overall customer experience (CX), customer retention, topline and bottom-line growth and product roadmap to deliver exceptional services that leave lasting impressions and drive brand loyalty, among other benefits, as opposed to point solutions or completion of targeted tasks.

“

Increasingly, enterprise growth and executives' key performance indicators (KPIs) are being measured by the capability to show foresight and thought leadership in successfully aligning their business offerings to meet market demands”

Changing Roles of Business Leaders

	Tactical	Strategic
Chief Financial Officer (CFO)	<ul style="list-style-type: none"> Accounting and Book-keeping M&A, Financial Communication Compliance and Decision Support 	<ul style="list-style-type: none"> Business risk management Digital strategies and technology advocacy Technology and process improvement Drive competitive advantage Value creation from a business vantage point
Chief Human Resource Officer (CHRO)	<ul style="list-style-type: none"> Hiring and Onboarding Management HR Policies and Compliance Compensation and Benefits 	<ul style="list-style-type: none"> Organizational culture and change agent Upskill and reskill talent in keeping with business dynamics. Focus on continuous learning and development in digital technologies Analyze emerging work models and future of work Environmental, Social and Governance (ESG)
Chief Procurement Officer (CPO)	<ul style="list-style-type: none"> Ensuring supply chain connectivity Promote cost savings and reduce supply risks Time and resource optimization 	<ul style="list-style-type: none"> Third Party Risk Management Generation/Addition of value across business units and products/services "Globalizing" procurement portfolio and program management Collaboration and negotiation with suppliers to drive business ecosystem
Chief Information Officer (CIO)	<ul style="list-style-type: none"> Internally manage IT and infrastructure Ensure availability and reliability of IT systems Enable and implement technology and processes 	<ul style="list-style-type: none"> Enable business continuity, security and compliance by design Leverage emerging technologies to drive differentiation and competitive edge Invest in the right set of tools to navigate current work models and workforce dynamics Value-driven leadership through technology and process innovations Focus on data-driven digital systems to enhance business productivity
Chief Marketing Officer (CMO)	<ul style="list-style-type: none"> Branding via external events, advertisements and sponsorships Scouting and utilizing relevant channels for brand messaging Supporting sales and aftermarket and participating in budgeting 	<ul style="list-style-type: none"> Design and deploy policies and practices to embed customer-centricity across a business Data-driven approaches to enhance brand visibility and promote omnichannel presence Single point of contact for innovation, product development, and sales and marketing Focus on customer experience through personalization and real-time service delivery Renewed focus on emerging technologies, channels and business models

The Common Denominator in the Changing Business Panorama

The common trait that runs across roles and businesses is the fundamental shift in operating models they are all undergoing. Technology disruptions – an irreversible phenomenon – will influence operations, processes and roles. The following few business imperatives will transform and help enterprises to maintain a competitive edge and sustain themselves in this rapidly evolving business environment.

- All departments across an organization will be required to align with its overall strategy – working in silos is no longer a viable option for any organization.

“ More than **70%** of organizations agree that their executives are active participants in their automation strategy¹”

- Changing business requirements transforming the roles of executives lead to an expectation that employees must bring contrasting skillsets rather than traditional skillsets to the table.
- The decision to onboard technologies will no longer sit with the IT department but be driven by business functions.
- Employees must coexist alongside technology and leverage it to make smarter decisions.

Taking these dynamics into consideration, and with digital leading this change inherently, **business process operations today are steadily transforming into digital process operations.**

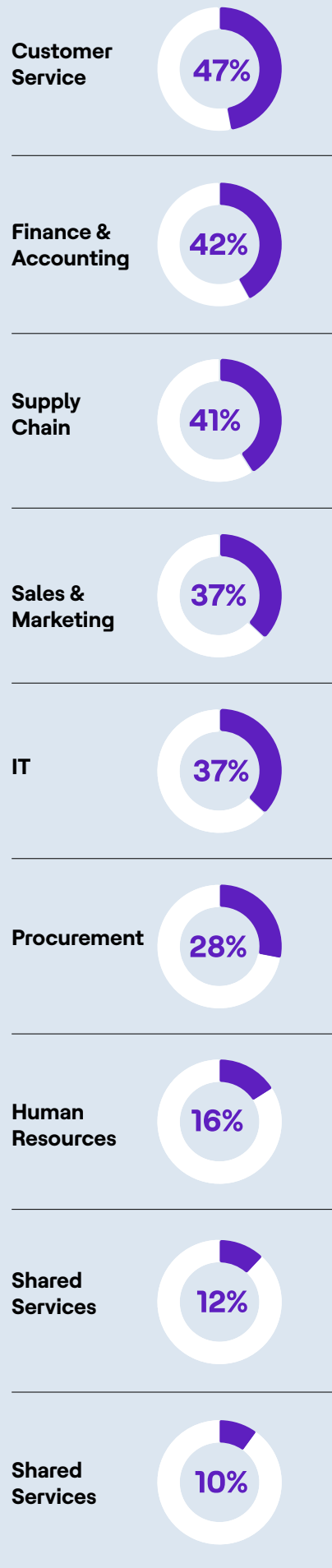
The Inevitable: Technology Driving the Next Phase of Operational Excellence

As businesses are leaning toward providing a holistic CX, driving more integrated and digitalized services with back-office and front-office integrations and redefining their business process operations as digital business operations, technology is the precursor to this change that organizations must bring about.

Automation has become the de facto technology for several functions within the business process industry, addressing functions such as data entry, data processing on several fronts and data extraction in some cases. Currently, automation efforts and investments are largely focused on routine, mundane tasks, including transactional and process-intensive operations: finance & accounting, customer service and supply chain operations are becoming prime targets for automation efforts. While these investments begin with automation implementations, other digital technologies and underlying processes are being leveraged to drive significant value from the investment.

“ ISG recognizes automation, AI/ ML and analytics as the pillars of technology necessary to stay relevant and sustain growth within the BPO industry”

Figure 1 – Automation implementation across various business functions



As organizations are looking to scale automation across business functions, ISG believes that adoption of robotic process automation (RPA) is just the tip of the iceberg. AI/ML-led automation will be leveraged for several more complex tasks, resulting in improved user experience. With automation maturing, bots are learning and becoming smarter by the day. Automation has penetrated deeply into business process functions, and a vast array of processes across functions have already been automated: Functions such as invoice processing and level 1 query resolution have been transformed into touchless processes. According to ISG, functions such as order to cash and procure to pay, under the umbrella of finance and accounting, have witnessed an average of nearly 70 to 80 percent of processes being automated.

With automation and AI/ML gaining traction and the roles of executives undergoing a change, analytics will be the key enabler of the resultant transformation. Analytics is being embedded within business functions and integrated with processes to create a better understanding of organizational data flow and to derive actionable insights for improved business outcomes. Analytics is becoming highly relevant and has gained increased mindshare among executives in making data-centric growth decisions, as well as in streamlining data to identify underperforming assets.

Figure 2 – Typical automation candidates transforming business process functions into digital processes

Record to Report	Procure to Pay	Order to Cash	Supply Chain	Contact Center	Human Resources
General Accounting/Close	Vendor Master	Customer Master	CRM and Customer Service	Query resolution	Recruiting
Management Reporting	Sourcing/Contract	Credit/Contract	Demand Management	Marketing	Compensation and Benefits
External Reporting	PO Process	Order Process	Materials Management	Collections	Performance Management
Treasury	Goods Receipt	Logistics/Delivery	Capacity Flow Management	Order Processing	Training and Development
Tax	Invoice Process	Billing/Dispute Resolution	Transport and Logistics	Payment	Payroll
FP&A	Payment Process	Collections	Carrier Management	Sales & support	Lifecycle Management
Controllership	T & E	Cash Application	Returns Management	Claims and Invoice	Organization Management

Source: ISG Research

Unspoken Correlation between EX and CX

Undoubtedly, CX is more important now than ever before, and technology plays an important role in bringing the desired CX outcomes. Enterprises continue to explore possibilities of providing seamless and enriching CX. However, enterprises miss seeing the larger picture – of CX enabled from within the organization through employee experience (EX). In the real world, EX is as important as CX. In the emerging work culture, where machines will be the closest allies of humans and the role of an employee will evolve, EX will be paramount.

91% of enterprises notice an improvement in employee satisfaction level as a result of automation initiatives, allowing them to spend less time on manual, time-consuming tasks and engage more on high value, strategic tasks¹




EX is elevated with the right set of tools, training and coaching, employee programs and change management. While aligning strategies to overall organizational growth goals, organizations face challenges such as a significant resistance to change.

Companies are working with employees to allay fears about impact on jobs, motivating them to embrace automation and building a culture in which employees consider bots as additional/supporting colleagues responsible for carrying out routine, repetitive back-office work. Digital technologies have a profound impact on both CX and EX. Realizing the importance of digital technologies and their power over CX and EX, enterprises have been prioritizing digital transformation activities in the recent past. Especially since COVID-19, this transformation is on an accelerated path across various sectors.

The future represents a whole new era of working, where humans and machines need to understand their roles and learn to coexist. For this relationship to mature over time, enterprises must focus on certain critical pillars of success. Failure to do so can inhibit the organization from achieving the end goals of transformation.



Figure 3 – Areas of focus for enterprises to enhance EX

Areas of Focus	State of the Industry	Enterprise Imperatives
 <p>Interface that Invites Usage</p>	<p>With increase in low-code/no-code platforms, the market has several intuitive and easy-to-use solutions on offer. With these solutions, dependency on IT or developers is significantly reduced as employees are able to independently manage and maneuver between screens or change settings as per their needs.</p>	<p>Organizations must invest in tools and technologies that are easy to use and can integrate with existing systems to help employees become more efficient.</p>
 <p>Honing Digital Skills</p>	<p>According to ISG Research¹, 32% of enterprises state that lack of skills is one of the biggest challenges inhibiting the deployment of automation.</p>	<p>With changing technology landscape, training employees to use tools effectively, leverage analytics and apply them to improve business outcomes is imperative.</p>
 <p>Change Management</p>	<p>Accordin to ISG Research¹ 36% of enterprises state that organizational resistance to change is the second-largest obstacle to automation deployments.</p>	<p>Having a strong change management program in place is crucial to enabling digital transformation. Having relevant and improved metrics alongside strong leadership, to foster the change, is equally important.</p>

Deciphering the New Normal of Coexistence

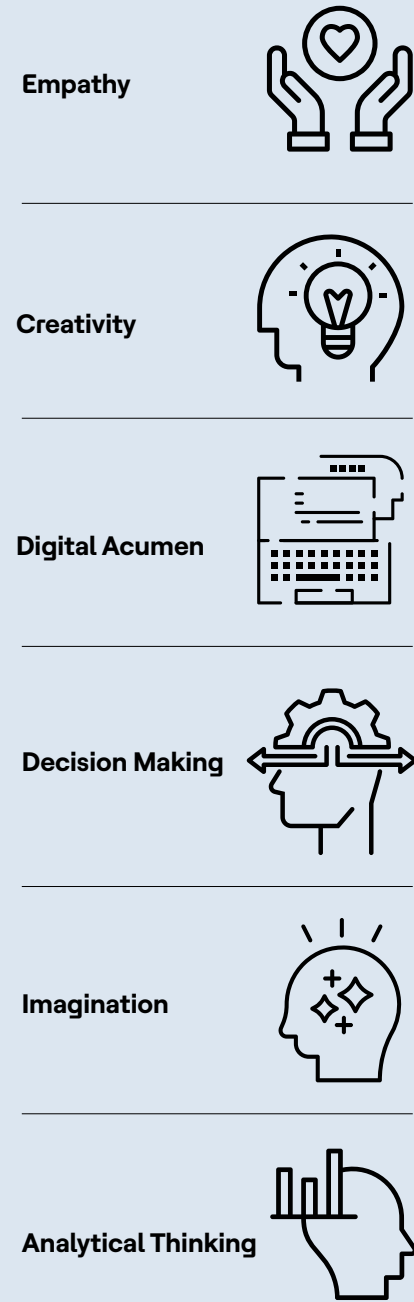
It takes two to tango! It is not a question of 'or,' but of both humans and machines, working together, that drives true transformation. RPA made inroads into business operations rather quickly, and now, with intelligent automation gaining traction, the role of an employee is rapidly evolving. Questions about job losses are a thing of the past. It is now evident that despite the capability of automation that can manage a vast number of tasks on its own, human intervention is still relevant to complete complex tasks. Therefore, in this new era of digital, coexistence is the new normal. With the shift-left phenomenon, employees can rely on automation to get routine tasks done, and, as bots get more intelligent, machines are capable of handling slightly more complex tasks. However, there are still more complex tasks, and employees will now have more the time to focus on reskilling themselves to address them.

As machines take over basic customer interactions, resolve queries and complete regular operational tasks, employee skillsets will evolve and get aligned to business outcomes such as brand advocacy, customer retention, personalization, exception management and governance. As machines get better at science, technology, engineering and mathematics (STEM) skills, humans will be required to develop soft skills such as humanity, empathy, creativity and imagination (HECI).



rr Nearly **50%** of enterprises believe they can always find new tasks or higher value tasks for employees impacted by automation¹⁷

Figure 4 – Employee skillsets of the future



Employee of the Future

Much has been spoken about changing roles. Technology is here to stay and will continue to influence the roles of employees, compelling them to put on their thinking hats and develop new skillsets. At the same time, with increased expectations and the significant influence of technology, a deep understanding of the roles of both machines and employees is necessary for them to coexist. For organizations to reap the benefits of technology, such as automation and AI, employees must be a part of the larger automation strategy: Employees will play the most critical role in delivering last-mile services by solving complex problems that will translate into key business outcomes such as customer experience and customer retention.

Figure 5 – Areas of focus for enterprises to enhance EX

Personas	Skillsets	Technology Augmented Roles
Technology Advocates	<ul style="list-style-type: none"> • Domain knowledge is strong • Technical skills like programming • Pursue automation Technology certification 	Such employees have deep understanding of the domain and are developing technical skills. They are strong advocates of technology and bring continuous improvements in processes by looking for opportunities to automate.
Process Experts	<ul style="list-style-type: none"> • Domain knowledge is strong • Deep understanding of processes • Critical thinkers • Decision-making abilities • Coaching and mentoring skills 	Such employees solve problems that automation cannot handle. They are process owners and can solve problems across departments. With automation in place, these employees have time to focus on problems of a complex nature and can effectively leverage technology to solve them.
Domain Specialists	<ul style="list-style-type: none"> • Domain knowledge is strong • Vertical specialists • Brand advocates • Critical thinkers • Decision-making abilities • Coaching and mentoring skills 	Such employees are experts in one domain, with the ability to solve highly complex problems. They bring differentiated skillsets such as decision making and critical thinking to the table, in addition to their ability to make the best use of technology.

Source: ISG Research

The Road Ahead in the Digital Realm

There is no doubt that technology has had a momentous impact on business process operations. Enterprises are embarking on their technology adoption journey not just for cost savings but for long-term business benefits such – productivity gains, accuracy, timeliness and customer satisfaction. However, it is imperative that organizations give people and technology equal importance.

Technology

Technology investments should be aimed at shaping and transforming existing operations to suit the changing needs of a market and customer behavior. More often, these initiatives have not resulted in successful transformation due to factors such as the absence of an inclusive approach, where many enterprises have followed a siloed approach to becoming digitally relevant. The decision to onboard technology can no longer be vested in any

one department. Rather, IT and business functions must work together for the successful rollout of any tool or technology. Business leaders should have a better understanding of their investment strategy to enable process digitization with technology and align the same with business priorities and outcomes. On the other hand, in the quest for digitizing operations, often organizations are at a crossroads when selecting the solution that fits the larger organizational goals and requirements. Either organizations end up investing in multiple solutions that are primarily point solutions and are not scalable across processes, or they invest in solutions that do not meet their business objectives. In some instances, organizations also run into challenges such as complicated deployments or application maintenance issues and increased maintenance costs. All these factors lead to increased operational expenses or capital expenditures, dated technology, or low or no return on investment (ROI): in short, multiple solutions that do not talk to each other, resulting in unmet business outcomes, unusable systems due to lack of functionalities and other, unforeseen disadvantages due to a poor overall fit

with the solution. Thus, it is critical for organizations to make the right choice in choosing the solution that best fits overall organizational requirements.

People

A lot of emphasis has been placed on the human aspect of a digital transformational journey. Organizations must recognize this critical factor and be equipped to handle the multitude of changes surrounding people and their roles. Training, improvement of skillsets, continuous development programs, redefinition of career roadmaps and growth, change management programs and, more importantly, a culture of co-existence are critical to the success of transformation.



Intuitive Digital Foundry Enabling the Future Workforce: HCLTech's digitalCOLLEAGUE (dC)

Perspective

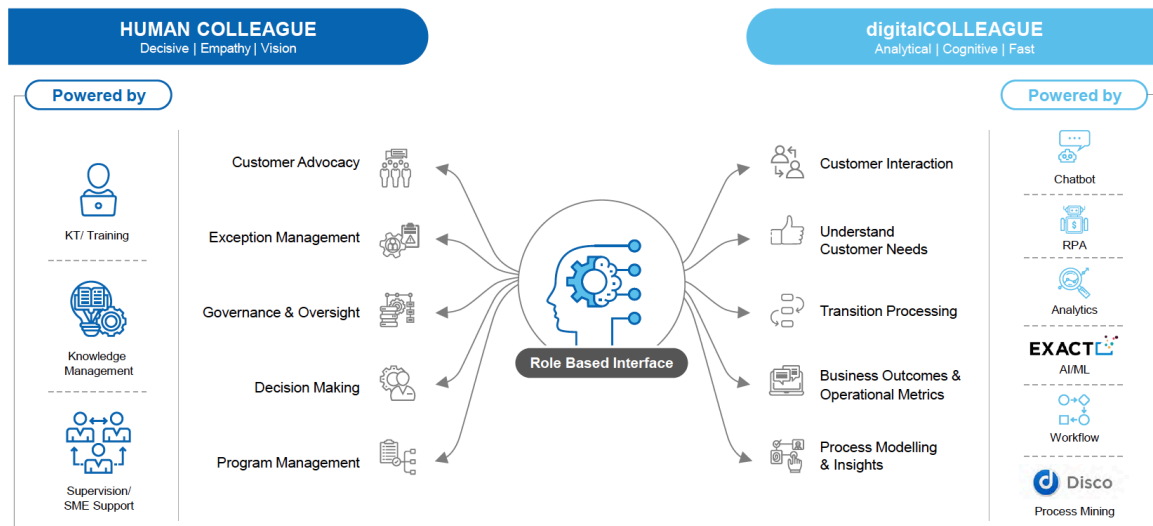
Transforming traditional business operations to digital operations, HCLTech's [digitalCOLLEAGUE](#) is a domain-led and role-based single user interface (UI) platform, enabling a human workforce to leverage a digital workforce. Realizing the need for human-machine collaboration, HCLTech's digitalCOLLEAGUE is a congregation of preconfigured, ready-to-deploy digital assistants and not just RPA bots. HCLTech's digitalCOLLEAGUE is not just about technology, but it focuses on bringing domain expertise, blended with technology, to provide a collaborative working platform for humans and machines. HCLTech's digitalCOLLEAGUE is built to offer the following:

- A fully functional end-to-end solution: Helping organizations optimize technological investments as they get access to multiple technologies packaged into one solution, designed to solve business problems rather than offer point solutions.
- Leverages golden blueprints to define activities: HCLTech leverages its deep domain knowledge and takes into consideration multiple scenarios for processes, business problems and vertical subtleties to design solutions, aiming to help organizations deploy solutions that are more suitable for their business circumstances and not generic in nature.
- Simplified approach with single UI-based login: HCLTech's intuitive UI adopts a simplified approach to help employees use the tool effectively and enrich their experience.
- Technology-driven enabler that executes processes seamlessly: The solution embeds emerging

technology such as RPA, AI/ML and analytics for organizations to benefit from their use and achieve the desired insights. Conceptualizing a Humanlike Peer HCLTech's digitalCOLLEAGUE is a solution that is uniquely designed, bringing a digital workforce to support a human workforce. Similar to the process of hiring a human employee, enterprises can hire digitalCOLLEAGUE, where digitalCOLLEAGUE résumés will list all the capabilities a bot can deliver, which human peers can choose from. This highly configurable solution offers a range of bot solutions (or résumés) spanning various digital processes. Based on the roles humans and machines will play, HCLTech's digitalCOLLEAGUE focuses on tasks such as customer interaction, transition processing, operational metrics and delivering insights. This will empower humans with information to bring to skillsets such as decision-making, empathy and critical thinking to deliver business outcomes such as customer advocacy, governance and program management. This tool is designed with the objective of striking a balance with human employees, so much so that they can complement each other's skills effectively to bring about the desired outcomes.

“Aiming to ease enterprise challenges, HCLTech's value proposition to enterprises with its digitalCOLLEAGUE solution is enabling enterprises to focus on business outcomes while HCLTech takes care of the operations, processes and technologies”

Figure 6 – Complementary skillsets that bring human colleagues and digitalCOLLEAGUE together



Source: HCL

Analytics: The Power of Enabler

As discussed above, analytics is the primary enabler of information and insights, empowering business executives to make decisions, potentially in real time. Considering the importance of analytics, HCLTech’s digitalCOLLEAGUE solution is designed to embed analytics at its command center, iMPACT. This command center is equipped to deliver insights derived from structured and unstructured data; provide real-time insights about performance; aid decisions; and facilitate continuous monitoring, alerting users about failures or any exceptions. The end-to-end visibility into processes helps business executives leverage the information to take timely actions and make informed decisions. This command center is designed to help in the governance of the digital workforce and delivers highvalue benefits such as bot monitoring, optimal usage of digital workforce, SLA compliance, transparency and visibility and easy tracking of issues – all leading to outcomes such as real-time decision-making, increased revenue, cost savings and better control over processes.

Figure 7 – Analytics – iMPACT command center to drive operational efficiencies by facilitating deep insights

Analytics – iMPACT Command Center

Data Processing	Real Time Insights	Actionable Decisions	Alerts & Notifications
<p>Operational Analytics</p> <ul style="list-style-type: none"> Insights – <ul style="list-style-type: none"> Volume status – Spike management Tasks Status Utilization of FTEs and Bots Workload Status Schedules & Queues Users Information Benefits – <ul style="list-style-type: none"> Repeatable, scalable processes and a scalable digital workforce Effective bots monitoring Quality deliverables through increased Bot productivity and accuracy 	<p>Business Analytics</p> <ul style="list-style-type: none"> Insights – <ul style="list-style-type: none"> Trend analysis related to business KPIs like list pull tasks completed, websites registered, PO’s created, activity ids generated Return on Investment Productivity Insights Process Cycle Time Benefits – <ul style="list-style-type: none"> Optimal use of digital Workforce Increased Productivity and Workforce enhancement Cost savings Best customer service 	<p>Incident Analytics</p> <ul style="list-style-type: none"> Insights – <ul style="list-style-type: none"> Incidents by Process/Bots Incidents by severity Issues Category Top issues SLA Monitoring Tickets Analysis Benefits – <ul style="list-style-type: none"> Detailed Incident Report for easy tracking of issues Transparency and visibility Increased SLA compliance 	<p>Anomaly Detection</p> <ul style="list-style-type: none"> Insights – <ul style="list-style-type: none"> Identify deviations of larger nature pertinent to business KPIs, compliance or privacy Privacy reflags for missing approvals Alerts and notification for control failures(unsubscribe link) Benefits – <ul style="list-style-type: none"> Compliance & Governance Business Continuity & Availability of bots Increased revenue Quality deliverables

Thinking it through holistically, HCLTech has designed its solution bearing in mind user requirements to aid self-starting by employees, with minimal or no dependency on IT. As the low-code/no-code tools gain prominence, HCLTech’s digitalCOLLEAGUE is rightly positioned to provide better user experience. The deployment of the solution with necessary customization is fairly quick and benefits enterprises with a faster go-to-market process. Envisioning the future of digital operations as both humans and machines learn to coexist, HCLTech’s digitalCOLLEAGUE is a foundry in its true sense, enabling this coexistence.

About the Authors



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Ritesh Jain is the Intelligent Automation & Digital Transformation Practice Head at HCLTech. He is responsible for building HCLTech's Intelligent Automation practice, strengthening its position in Digital Transformation, and enhancing the customer experience using domain-led RPA strategy as key differentiator across Banking & Financial Services, Insurance, Healthcare, Media, Publishing & Entertainment, Supply Chain, Procurement, Customer Lifecycle Management and Finance & Accounting. A thought leader with 20+ years of experience in Operations & Strategy and executing key responsibilities across delivery, solutioning, business development & capability development for the Automation practice. Have filed 6 patents in the field of customer experience, digital maturity and use of artificial intelligence in business functions. Have been a speaker at multiple forums like Websphere User Group, IBM Impact and UiPath. Have published various papers in VirtualStrategy, eBizqNet and leading Indian newspapers.



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1 ISG Research Automation Deployment & Capability Study, December 2019 (n=346).

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