

Innovation Nation

Helping to optimize your business operations

WINTER | 2017–2018



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Head of Business Services

In a recent Capgemini commissioned research [survey](#) of over 1,000 UK office workers, almost half (48%) said they were optimistic about the impact cutting-edge technologies such as automation, robotics and artificial intelligence (AI) would have on the workplace of the future. The survey also revealed that 85% of office workers responsible for the finance function have given serious thought to how automation technologies can support their department with its day-to-day processes.

Within Finance and Accounting (F&A), emerging technologies are bringing new levels of agility to Finance, enabling F&A teams to reassess current practices and deliver more to their organizations than anyone could have thought possible. In light of this, the Winter 2017/2018 issue of Innovation Nation focuses on how Capgemini's Finance Powered by Intelligent Automation solution is helping our clients reimagine their future, by promising the very best-in-class finance operations through a target operating model that actively supports their business.

Carole Murphy, our head of Business Transformation Services, kicks off the issue with a point of view on how the emergence of intelligent automation is giving finance teams access to more and faster information than ever before. Automation needn't be a threat—writes Carole—it can be a promise, especially when it's intelligent automation, and especially when it's applied to F&A. You can also read an interview with Carole on how our "Five Senses of Artificial Intelligence" model is being applied to the F&A function, by CEO of NelsonHall, John Willmott.

Our Technology Talk section is dedicated to our recently relaunched Odigo contact center solution. Head of Prosodie-Capgemini, Erwan Le Duff, discusses how the evolution of technology has made it

possible to manage customer interaction on a single, interconnected channel, while Thomas Saint-Hilaire (Digital Platforms, Prosodie-Capgemini) also shares his point of view on how AI and voice-based chatbots are set to radically transform customer services.

Capgemini Poland is the subject of our Center of Excellence section. Justyna Piwowarczyk, director of our European delivery centers, talks about how Capgemini Poland is delivering intelligent automation and process transformation through "knowledge workers" that understand where and how automation can be applied. Karolina Długosz (Corporate Responsibility & Sustainability Manager) also discusses the crucial role Capgemini Poland is playing in driving social change within local communities, and how they are contributing to the Group's CR&S commitment.

Once again, our accomplished task force of experts dust off their fountain pens to write about subjects such as Blockchain and smart contracts in contract lifecycle management, how audit and compliance productivity can be driven by artificial intelligence, and how leveraging a digital TPA (third-party administrators) can accelerate the digital journey for insurance companies.

And finally, we end with a celebratory article about Capgemini as it turns 50 and the forward-thinking ethos of our founder Serge Kampf, who started the Capgemini story in a two-room apartment in Grenoble, France, in 1967.

The articles that make up this issue of Innovation Nation are mostly available on our website, where we welcome you to share your opinion and views.

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Focus on Finance Powered by Intelligent Automation





Reimagining Finance and Accounting

Carole Murphy

*Head of Business Transformation Services,
Capgemini's Business Services*

The emergence of intelligent automation is giving finance teams access to more and faster information than ever before. Information on which they, and every other part of their organizations, can profitably act. What's more, these same artificial intelligence tools don't just access information—they can also respond to it themselves, without further human intervention and for the good of the enterprise as a whole.

For many, the very notion of automation comes loaded with negative baggage. It's said to make human ingenuity redundant. It's thought to be impersonal and driven purely by cost. And it's believed to be reductive, shaping every scenario to an inflexible pattern with which it can cope and ignoring or overriding any differences.

Automation needn't be a threat at all. In fact it can be a promise—especially when it's intelligent automation, and especially when it's applied to finance and accounting (F&A).

Emerging new technologies bring new levels of agility to F&A, which has often had an uneasy relationship with IT over the years. At their most effective, these are tech tools that aren't simply applied to existing business models, but that are part of a bigger and broader reassessment of how processes can themselves change.

In short, F&A teams can reimagine their futures. If they are bold, if they approach automation constructively, if they use its introduction as an opportunity to reassess current practices, they'll deliver more to their organizations than anyone hitherto thought possible.

The changing nature of value

F&A teams have been expected to deliver increased value for a number of years. It's been measured largely in terms of operational efficiency, and the benefits have been administrative.

But more recently the nature of this challenge has changed. Value is now seen not just as cost-based but as part of organizations' wider commitment to the people they serve. It's not just an internal function, but outward looking. It's about increasing cost-effectiveness and so maintaining competitiveness and meeting commitments to shareholders—but it's also about enabling businesses to understand their performance from moment to moment, and to put plans in place that improve that performance not just for themselves but for their current and future customers.

In short, the F&A function is now expected to run the business efficiently—but also to help the sales team sell, the marketing team to shape the offer, the supply chain to work cohesively and the logistics function to deliver.

Making a difference to F&A

Business functions can be automated to meet these challenges, but intelligent automation goes a stage further. It learns. It takes the initiative when it can, and provides a basis for expert decision-making when it can't. That's why artificial intelligence (AI) is set to extend and transform the contribution F&A makes to organizations, by benchmarking operations to ensure top performance, reducing total cost of service and implementing a target operating model that actively supports the business.

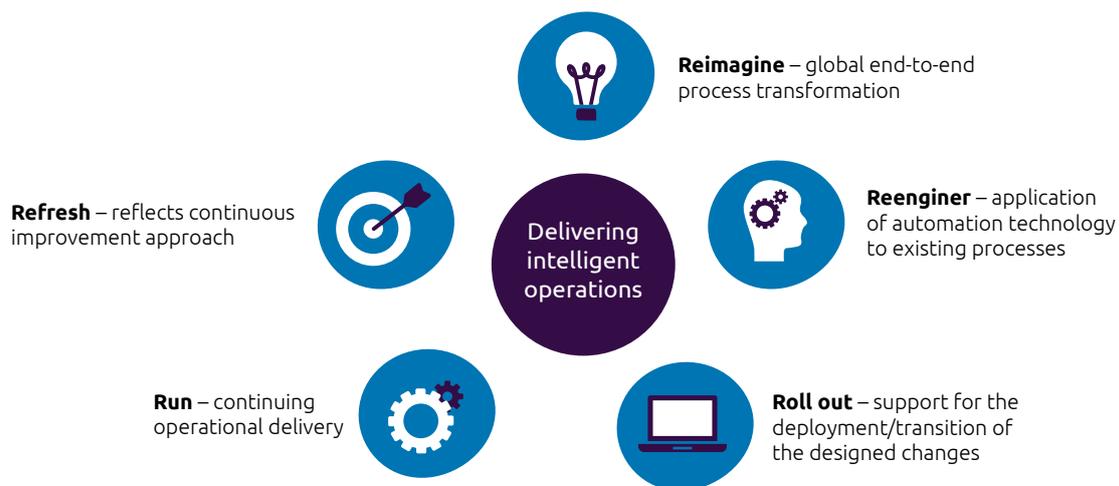
Across the key functions of credit-to-cash (C2C), procure-to-pay (P2P) and record-to-analyze (R2A) there are opportunities to:

- Enhance customer experience (CX) by moving customers even closer to the center of service delivery.
- Improve relationships with and value for business stakeholders.
- Improve controls across standard processes.
- Monitor and rectify non-compliance.
- Boost P&L and cash flow by reducing leakage from order-to-cash.
- Enhance management of effective working capital.
- Increase sustainable growth in new and emerging markets.
- Improve planning with rapid access to financial data and enhanced analytics.

Intelligent automation can be embedded at any point in an organization's process lifecycle:

Automation needn't be a threat. In fact, it can be a promise—especially when it's intelligent automation and when it's applied to finance and accounting.

Intelligent automation can be embedded at any point in an organization's process lifecycle



The approach—be guided by your senses

To take full advantage of intelligent automation, what's needed is a change of mindset, and in a number of ways. To begin with, it means F&A teams need to see the direction of travel in which this new approach is taking them. For instance: their role will continue to involve reducing cost of service and cost will continue to be a default metric. But for one thing, it's no longer just F&A costs that are under consideration (the cost of processing an invoice, for example): properly handled, intelligent automation can deliver cost benefits throughout the organization. And for another thing, cost is itself only part of the story—as we shall see, intelligent automation gives F&A teams a role to play in delivering great customer experience.

The change of mindset also includes accepting that this is not a purely a technology proposition, and that AI can't simply be bolted on to current processes. Like human intelligence, it's a combination of knowledge, senses and experience, and realizing its potential involves thinking not just about the digital elements, but also about the business infrastructure within which they operate. Properly implemented, AI ought to be intrinsic to the way the enterprise functions.

At Capgemini, we have identified five main attributes of intelligent automation and

smart processes that they can be likened to human senses. Thinking of them in this way makes it easier to understand how they function and the contribution they make.

The five senses of intelligent automation

Interaction—talking and listening

Interactivity is the area in which the technology most engages with people, listening to them, reading what they say and responding, either aloud or in writing. Chatbots and voicebots are common examples. For instance, an intelligent service desk can help F&A team members resolve their own "How do I do this?" queries.

But the technology could also convert data into forms people can understand. It can interpret and present information and even summarize it to assist F&A teams with decision making.

Monitoring—watching

Intelligent automation makes continuous monitoring possible. It means F&A teams don't have to wait until month-end to see the state of play. It also means they can keep an eye on gaps in transactions and not only see and rectify them quickly but develop new controls to mitigate against future instances.

Knowledge—remembering

Artificial intelligence turns knowledge management on its head. Instead of being driven by the data and by the systems in which it resides, it's driven by the needs of the business and by the value it brings in shaping future direction.

AI-based knowledge platforms can employ Deep Learning techniques, text analytics and NLP, advanced analytics, and knowledge extraction algorithms. For instance, a "fraud bot" can be trained to spot suspicious activity that might otherwise be missed—activity such as changes to bank details, misspellings and transactions at strange times of day.

Analysis—thinking

Artificial intelligence detects patterns, recognizes trends and applies algorithms to information to determine appropriate actions—and it can do this at scale.

This can help F&A teams not only identify opportunities to improve their standard practices but make recommendations to other parts of the organization.

For example, transaction history may indicate demographic differences in payment preference that the F&A team can pass on so processes can be amended to improve customer experience.

Service—acting

In these instances we see automation taking action on its own initiative. In F&A, robotic process automation (RPA) is an example of this, taking and processing a customer order or processing a supplier invoice.

AI can extend RPA by employing Deep Learning algorithms to learn from historical data and decide appropriate processes and approaches to take in the delivery of financial and other services.

How the “five senses” approach to intelligent automation could work in procurement

The solution

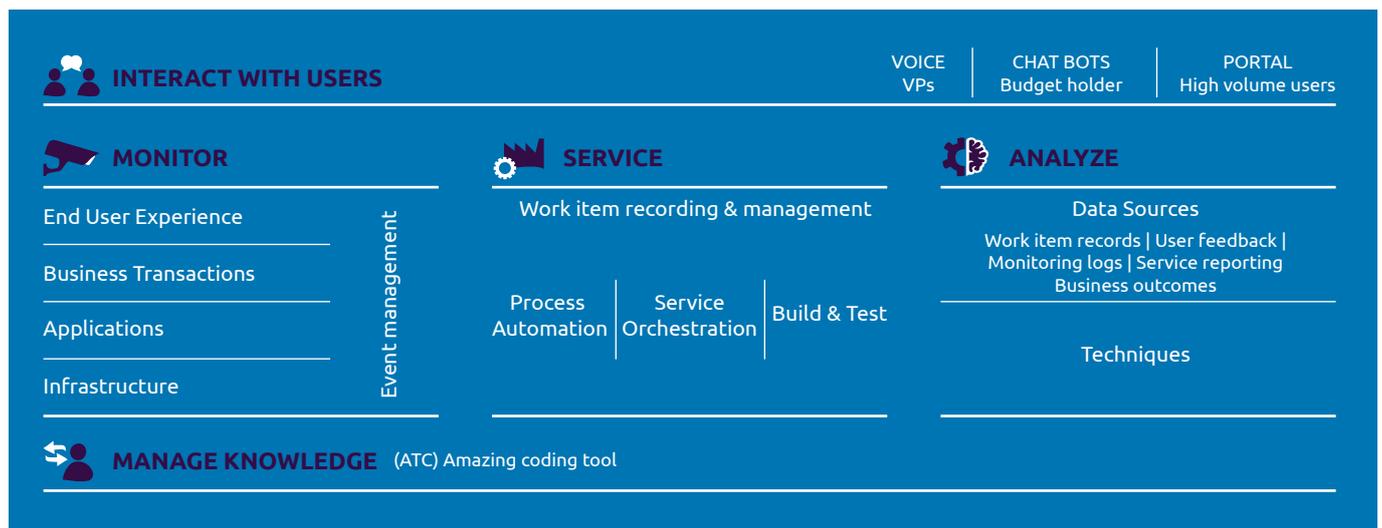
- Assess current business processes to determine best technology approach.
- Adapt processes or technology or both to achieve best results.
- Implement automated approach using a suite of hand-picked best-in-class tools, not just at process level but for the benefit of the organization as a whole.

The processes

- **Monitor** – cash, collection contacts, ageing and customer disputes and more besides using KPI dashboards.
- **Interact** – customers, vendors and employees to resolve queries and improve collections.
- **Service** – automated cash apps, bank reconciliations, sales invoice creation, T&E claims processing and more, plus exceptions handling and e-invoicing.

A change of mindset is needed to take full advantage of intelligent automation.

Framework



Case study

The company

Capgemini’s Business Services is itself a global operation, serving multinational organizations across a range of markets and sectors.

The challenges

- Streamline operations and increase efficiency.
- Extrapolate more information from financial data, and interpret it more effectively.
- Improve insight and determine improved courses of action that benefit customers and the organization itself.

- **Analyze** – P&L, cash, procurement spend, collections and process efficiency, transaction costs and more.
- **Manage knowledge** – collection strategies and patterns as well as cash application and bank reconciliations rules.

The outcome

- 10-day reduction in days sales outstanding (DSO).
- 30% productivity increase in P2P (T&E and accounts payable).
- Approximately 80 FTE reduction in 2016 (10% of overall headcount).

F&A teams need to see the direction of travel in which intelligent automation is taking them

Capgemini's offering

The Automation Drive suite Capgemini brings to F&A and other enterprise disciplines comprises three components—Automation Drive Framework, Automation Drive Tools and IP, and Automation Drive Services.

Benefits from real-world examples

Intelligent automation results achieved by global organizations across many industry sectors include:

- Reduced effort per request from 3–4 days to 2–3 hours.
- 4.6-day reduction in dispute resolution time.
- 80% automation query indexing.
- Over 30% improvement in efficiency.
- 20% improvement in bank statement booking processing time.
- 25–30% improvement in bank reconciliation processing time.
- Up to 30% improvement in cash flow reporting.

Lessons

The conclusion we can make is that intelligent automation:

- Gives finance teams a more comprehensive and immediate view of business performance than they've ever had before. This knowledge is a benefit not only for F&A but for every other part of the organization.
- Brings new and more immediate levels of measurability to finance.
- Is more accountable. By automating F&A processes organizations can also to a large extent automate demonstrations of their compliance.
- Demonstrates that good customer experience can and should be part of the F&A remit, and also that it's not necessarily predicated on people. In fact, it can monitor activity and respond appropriately in ways that couldn't otherwise be achieved.

What's more, a fairly low investment can deliver a significant return, which can then fund further transformation.

The transformative benefits of intelligent automation can be achieved to their fullest extent when things work in concert with one another—when technology and tools are matched by deep understanding and experience not only of their implementation, but also of the processes to which they apply inside global operations. When this happens the F&A function will be recognized as the nerve center of the enterprise, and the entire organization can reimagine its own future.

Intelligent automation enables the F&A function to be recognized as the nerve center of the enterprise.

The Automation Drive Suite



FRAMEWORK

Interact | Monitor | Service | Analyze | Knowledge



TOOLS & IP

Capgemini Tools | Partner Tools



SERVICE

Design | Deploy | Support

Reimagine your F&A

through leveraging Intelligent Automation

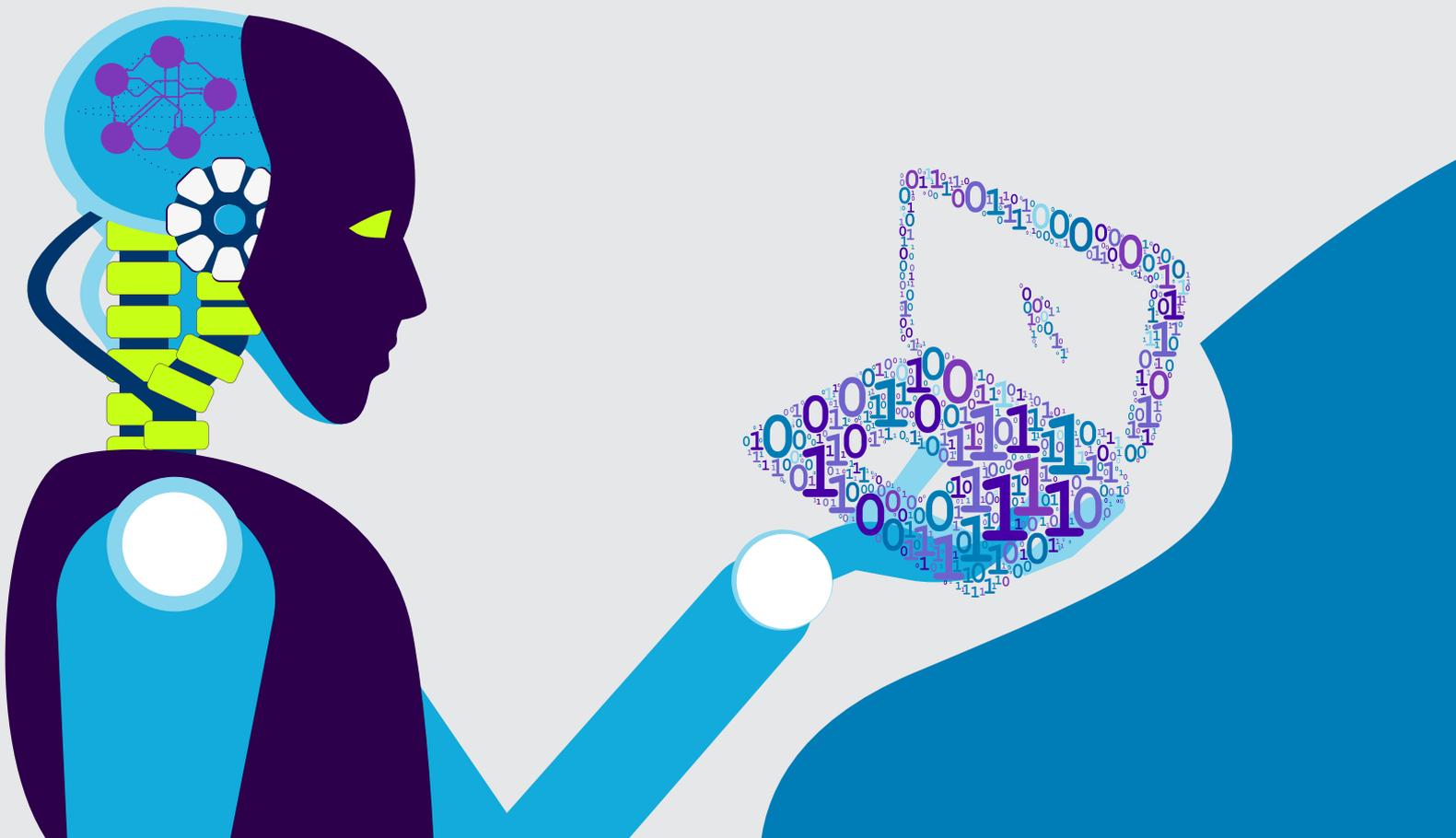
There has never been a more exciting time to be a finance professional. “Data is the new oil,” and accounting professionals are at the forefront of capturing and managing this valuable resource. Automation technology is enabling us to fundamentally re-think how we deliver service and value. Capgemini’s Finance Powered by Intelligent Automation solution reimagines your finance operations to deliver:



-  **Enhanced customer experience**
-  **Better finance operations at a lower cost**
-  **Improved data and reporting**
-  **Enhanced controls**

For more information, visit us at:

<https://www.capgemini.com/service/business-services/transform-your-finance-operations/finance-powered-by-intelligent-automation/>





The Application of Intelligent Automation to the Finance Function

John Willmott

CEO, NelsonHall

Capgemini has recently redefined its framework for Intelligent Automation taking an approach based on “five senses.” Accordingly, we caught up with Carole Murphy, head of Business Transformation at Capgemini, to identify how their new approach to Intelligent Automation is being applied to the finance and accounting function.

John Willmott | What is Capgemini’s approach to Intelligent Automation and how does it apply to finance and accounting?

Carole Murphy | Capgemini is using a “five senses” model to help explain Intelligent Automation (IA) to our clients and to act as a design framework in developing new solutions. The “five senses” are:

- **Interact (listen/talk)** – interacting with users, customers, and vendors, using a range of channels including virtual agents.
- **Monitor (watch)** – in F&A, for example, monitoring of KPI dashboards, daily cash in monitoring, customer dispute monitoring, etc.
- **Service (act)** – automated execution, for example using RPA to address for example cash reconciliation, automated creation of sales invoices, exceptions handling.
- **Analyze (think)** – providing business analytics in support of P&L and cash flow and root cause analysis in support of process effectiveness and efficiency.
- **Manage knowledge (remember)** – a knowledge base covering SOPs, collection strategies, bank reconciliation rules etc.

Why is this approach important?

It changes the fundamental nature of finance operations from reactive to proactive. Historically, within business process services (BPS) contracts, the vast majority of the process has been in “act” mode, supplemented by a certain amount of analytics. The introduction of Intelligent

Automation enables us to move to a much more rounded and proactive approach. For example, a finance organization can now identify what is missing before it starts to cause problems for the organization.

In accounts payable for example, Intelligent Automation enables an organization to anticipate utility bills, and proactively identify any missing or unsent invoices before say a key facility is switched off. Similarly, in support of record-to-report (R2R), transactions can be monitored throughout the month and the organization can anticipate their impact on P&L well in advance of the formal month-end close.

In summary, Intelligent Automation enables ongoing monitoring and analysis rather than periodic analysis and can incorporate real-time alerts, such as to identify a missing invoice and find out why it wasn’t raised. So, a much more informed and proactive approach to operations.

And what impact does IA have on the roles of the people within the finance function?

Intelligent Automation lifts both the role of the finance function within the organization and those of the individual within the finance function. One of the benefits of Intelligent Automation is that it improves how we share and deploy rules and knowledge throughout the organization—making compliance more accessible and enabling colleagues to understand how to make good financial decisions. Complex queries can still be escalated but simple questions can be

Intelligent Automation enables ongoing monitoring and analysis rather than periodic analysis, and can incorporate real-time alerts.

captured and resolved by the “knowbot.” This can change how we train and continually develop our people and how we interact across the organization.

So how should organizations approach implementing Intelligent Automation within their finance and accounting functions?

One of the exciting elements of the new technology is that it is designed for users to be able to implement more quickly and easily—it’s all about being agile. Alongside implementing point solutions the value will ultimately be how to combine the senses to bring the best out of people and technology.

We can re-think and re-imagine how we work. Traditionally we have organized work in sequential process steps – using the five senses and intelligent automation we can reconfigure processes, technology and human intervention in a much more inter-connected manner with constant interaction taking place between the “five senses” discussed earlier.

This means that it’s important to reimagine traditional finance and accounting (F&A) processes and fundamentally change the level of ambition for the finance function. So, for example, the finance function can now start to have much more impact on the top line, such as by avoiding leakage due to missing orders and missing payments. Here, Intelligent Automation can monitor all transactions and identify any that appear to be missing. Similarly, it’s possible to implement “fraud bots” to identify for example duplicate invoices or payments to give much greater levels of insight and control than traditionally available.

What does this involve?

There are lots of ways to start engaging with the technology—we see a “virtuous cycle” that follows the following steps:

- **Refresh** – benchmarking of the finance function.
- **Reimagine** – workshops involving design thinking, innovation lab, and

Intelligent Automation framework to identify the “art-of-the-possible.”

- **Reengineer** – incorporating eSOAR methodology and Digital GEM.
- **Roll out** – here it’s very important to take a very agile development approach, typically using preconfigured prototypes, templates, and tested platforms.
- **Run** – including 24/7 monitoring.

Reimagining F&A processes in the light of Intelligent Automation, rather than automating existing processes largely “as-is” is especially important. In particular, it’s important to eliminate, rather than automate, any “unnecessary” process steps. Here, Capgemini’s eSOAR approach is particularly important and covers:

- **Eliminate**, removing wasteful or unnecessary activities.
- **Standardize** processes.
- **Optimize** ERPs, workflow, and existing IT landscape.
- **Automate**, using best-of-breed tools.
- **Robotics**, robotizing repetitive and rule-based transactions.

Finally, it’s critical not to be scared of the new technology and possibilities. The return on investment is incredible and the initial returns can be used to fund downstream transformation. At the same time, the cost, and timescale, of failure is relatively low. So, it’s important for finance organizations to start applying Intelligent Automation to get first-mover advantage rather than just watch and wait.

This interview was originally published on NelsonHall’s “Blogs & Webcasts” page and is reproduced with their kind permission.



It’s important for finance organizations to start applying intelligent automation to get first-mover advantage, rather than just watch and wait.



The CFO Challenge —Moving Finance Beyond a Cost Center

Christopher Stancombe

Head of Industrialization and Automation, Capgemini

One of the KPIs that should be on a world-class CFO's dashboard and must be delivered by a finance function is customer satisfaction—where the “customers” are internal consumers of services provided by the finance function. Why? Customer satisfaction goes to the heart of the relationship between the finance function and the business. It shapes the way everyone else interacts with the CFO and their team, and what they expect of them.

The cost center trap

If you contrast the relationship between the in-house finance function and the business versus a third-party professional services provider and the business, the differences can be stark.

I worked as a CFO for a long time. As the head of the finance function, it can feel like at the start of every year you are being asked to do more with less.

You're expected to “add value” and provide insight in a variety of areas, from analytics to compliance, tax efficient accounting and process improvements.

However, at the same time you're under pressure to work with an ever tighter budget, uncover more efficiencies and, effectively, to strip back the team. After all, you don't make or sell anything in your department—you're a cost center.

Does this sound familiar?

The “revenue earner” mindset

Twelve years ago, I began working in business process outsourcing (BPO), leading Capgemini's Finance and Accounting Outsourcing team and helping to develop our client-facing propositions.

At that point my mindset changed. My team and I were growing and evolving our business to more than a simple

“cost-out” message. I became a revenue earner, developing a range of services to fit our clients' needs—services which they would want to pay for. Of course, I was still expected to do “more for less,” but I also had the opportunity to do “more for more.”

This is the critical point. As a business services provider, if your clients are happy, and consider that they're receiving a good service, why wouldn't they want to buy more from you?

If you get it right, your business grows and you do even more work. Now, that's a very different relationship to the “finance function as cost center” scenario that I describe above.

Where CFOs can work differently

If I were to return to my roots as a CFO, what would I do differently to rebalance the relationship? I would bring the same approach to the internal function. I would ask the team:

- How can you get the basics of customer service right—how intelligently are you reviewing performance, and how often?
- How does your structure align to your internal customers' needs? Looking critically at the management and support roles within your function.

As the head of the finance function, it can feel like at the start of every year you are being asked to do more with less.

- What internal pricing mechanisms could help you position the value of your services and encourage the right behaviors from your team and your internal customer?
- How are you helping to drive the overall transformation of the business?

The important thing is to make sure there is a better balance of time and effort spent focusing on the present and future rather than just reporting on the past.

I would make sure that our SLAs and KPIs weren't only designed to track performance against core business outcomes (cash balance, day sales outstanding, etc.). I would ensure that we were also tracking the satisfaction of our internal customers and addressing their specific needs. That is the key to checking that you are delivering what I described above as “services which they would want to pay for” and acting as a true business partner.

To take one example, you can have the tightest procurement processes but unless you provide an intuitive service then your buyers will continue to complain and look for workarounds.

Or in another case, you might be driving cash by sharpening your collections process but this could have an unintended side effect of alienating an important customer segment. So the finance dashboard may be green across the board but the internal customers could be seeing red (the “watermelon effect”—green on the outside and red in the middle).

I think finance heads are already getting better at asking and answering these questions, but I certainly think BPO also has a role in helping CFOs address these issues and improving them.

Whether you go it alone, or draw on third-party expertise and scale, by focusing on these areas you can legitimately steer the conversations away from simple cost reduction to the business value that you'll deliver.

A final thought—the emotional impact (no, really)

I've stressed the importance of perceived business value here, but one of the other most important considerations is a more emotional one. Perhaps unfairly, finance professionals aren't exactly known for our emotional side. However, I think we all got into our profession because we have a natural leaning to customer service—we get a buzz from helping our businesses.

We don't just want to be a “necessary evil,” which is what the whole cost center argument boils down to in the end. Being seen as an innovative team, valued by other parts of the business, makes a tremendous difference to morale and professional identity. This could be one of the most powerful benefits of all.

Finance professionals aren't exactly known for our emotional side, but we have a natural leaning to customer service—we get a buzz from helping our businesses.

The Five Senses of Artificial Intelligence

Why humanizing automation
is crucial to the transformation
of your business

A deep source of untapped potential

“Corporate adoption of cognitive systems and AI will drive worldwide revenues from nearly \$8 billion in 2016 to more than \$47 billion in 2020.”¹

IDG Connect Ltd.

There's a lot of excitement surrounding Artificial Intelligence (AI) right now—but this is also accompanied by good measures of uncertainty and fear. The fear that technology is going to replace us, or that we're going to be engineered out of all usefulness, and that machines will rule.

However, it's not the end of anything. It's the start of something new and exciting, which holds untapped potential for not only businesses, but consumers as well. Furthermore, workers will be freed from repetitive and dull duties as tasks become automated—enabling humans to concentrate on more complex aspects of the business.

“AI spans a wide range of cognitive technologies to enable situational reasoning, planning and, learning, aping the natural intelligence that humans and other animal species possess.”⁴

IDG Connect Ltd.

Humanizing automation

There's nothing new about automation: It started during the Industrial Revolution, of course. But what is indeed new is intelligent automation—harnessing digital technology to replicate cognitive processes, adapt to new circumstances and intuit appropriate responses. It's a development that's set to change the way the world works.

It's essential to recognize that harnessing AI's potential involves not just thinking about technology toolkits, but the processes to which it is applied as well, along with the human purposes you are aiming to serve. Properly implemented, AI should play a core role in the functioning of your organization.

“I think for every job that is lost, there will be many more jobs that are gained. The role of AI is not to replace humans, it is to augment humans. It is about helping us do what we do better.”³

Rob High

CTO of IBM Watson

Global enterprises already have IT platforms, and few organizations are unaware of the benefits AI can bring. But taking advantage of it isn't simply a question of layering it on top of existing infrastructure or a current business process. AI is not an add-on. Like human intelligence, it's a combination of senses, experiences, and knowledge.

“Three in five companies (63%) say AI has not negatively impacted jobs in their organization ... the long-term view of the future is one the human employee is augmented with AI technologies.”²

Digital Transformation Institute Capgemini Consulting

1 “The hidden risk of blind trust in AI's ‘black box,’” IDG Connect Ltd., July 6, 2017

2 “Turning AI into concrete value: The successful implementers' toolkit,” Digital Transformation Institute, Capgemini Consulting, September 7, 2017

3 “Turning AI into concrete value: The successful implementers' toolkit,” Digital Transformation Institute, Capgemini Consulting, September 7, 2017

4 “Turning AI into concrete value: The successful implementers' toolkit,” Digital Transformation Institute, Capgemini Consulting, September 7, 2017

Bridging humanity and AI to completely transform your business

We view AI as a combination of senses—and it's paramount that you seek out an automation provider who understands this and how it applies to your operations.

The five senses of AI combine to create a solution that's similar to our perception of human intelligence.

The five senses—Listen/Talk, Watch, Remember, Think, Act

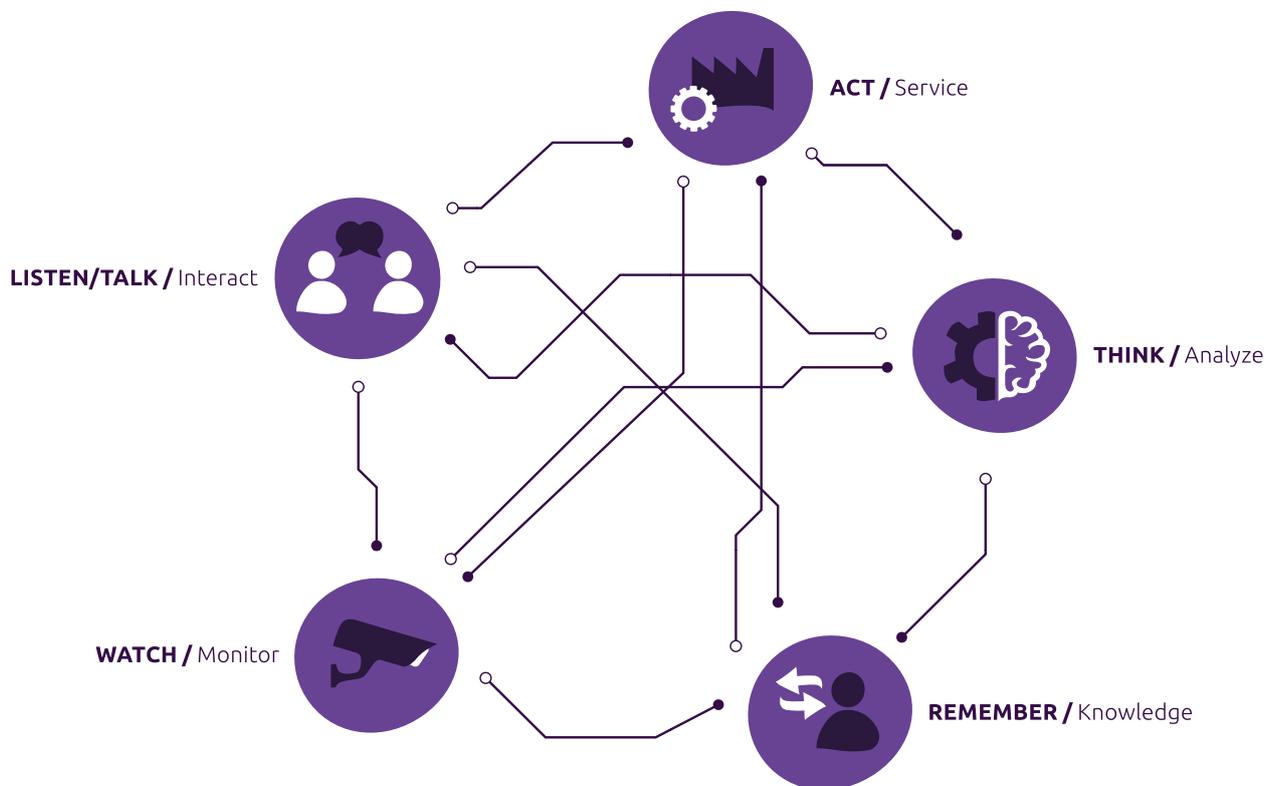
The five senses of AI work together to form automation solutions that deliver responsive, relevant, and intuitive user experiences. These attributes are a fusion of smart processes and intelligent automation, and they each have a corresponding human sense.



There are human issues that have nothing to do with the capabilities of the technology and everything to do with the culture of the organization and the quality of its leadership.”⁵

Professor Michael Schrage
MIT Sloan

THE FIVE SENSES OF ARTIFICIAL INTELLIGENCE



⁵ "Turning AI into concrete value: The successful implementers' toolkit," Digital Transformation Institute, Capgemini Consulting, September 7, 2017

Listen/Talk–Interact

Interactivity is the most human-like part of AI, because it's the area in which technology engages with people most—listening to them, reading what they say, and responding—either aloud or in writing. Chatbots and voicebots are common examples replacing staff-run service desks, or managed-service call centers. It's technology that needs to feel natural. It's integral to customer experience, so it needs to keep people happy.

Currently, technology focuses principally on the way people communicate with machines. As the table below shows, we're moving towards the reverse scenario—the use of natural language generation (NLG) to enable a machine to converse with people. For instance, technology could convert data into forms people can understand. It can interpret and present information and even summarize it to assist people with decision-making.



At Swedbank, a leading Nordic-Baltic banking group, Nina, a virtual assistant, managed to resolve 78% of the queries put to her at the first attempt. The bot sees an average of 30,000 conversations per month and she answers eight out of every ten customer questions.”⁶

Digital Transformation
Institute
Capgemini Consulting

Listen/Talk

What we can do now

- Voicebot/chatbot service desk using natural language processing (NLP), intelligent character recognition (ICR) and rule-based responses
- Human intervention in 20%–25% of cases for exception handling

Where it's heading

- Intelligent Virtual Agents with human empathy, employing Deep Learning-based knowledge, NLG, biometrics, image and video analysis
- Human intervention in managing configurations, monitoring performance and supporting continuous learning



Image recognition and facial scanning mimic humans' sense of sight, while speech recognition mimics humans' sense of hearing.”⁷

⁶ “Turning AI into concrete value: The successful implementers' toolkit,” Digital Transformation Institute, Capgemini Consulting, September 7, 2017

⁷ TechRadar™: Artificial Intelligence Technologies And Solutions, Q1 2017,” Forrester Research Inc., April 18, 2017

Forrester Research



More than 1 in 2 organizations (59%) agree that AI is supporting customer intimacy. And AI initiatives have helped more than 6 in 10 organizations increase customer satisfaction and reduce churn.”⁸

Digital Transformation Institute
Capgemini Consulting



AI-powered mobile visual search tools are helping consumers quickly take a picture of something they want to buy and suggest similar items.”⁹

Digital Transformation Institute
Capgemini Consulting

Watch–Monitor

Technology has been used to keep track of and record data for some time, so people can watch over it and take appropriate action.

But what’s new is the extent to which monitoring can now happen, and the manner in which data is captured. Standard metering and telemetry are being joined by CCTV, IoT sensors, and other forms of digital data capture. Organizations can assess the health of their IT systems, customer experiences and expectations, market trends, and more.

What’s also new about monitoring is the application of AI. Self-healing routines are being built into processes to automate remediation, and AI techniques will make them completely self-adjustable and self-manageable.

Before, monitoring captured data—now, it generates knowledge.

Watch

What we can do now

- Self-healing elements employing RPA tools
- Human intervention in 25%–40% of cases for remediation purposes

Where it’s heading

- Pre-emptive monitoring and full self-healing employing predictive analytics, Deep Learning, and image and video analysis
- Human intervention in managing configurations, monitoring performance, and supporting continuous learning

⁸ TechRadar™: Artificial Intelligence Technologies And Solutions, Q1 2017,” Forrester Research Inc., April 18, 2017

⁹ TechRadar™: Artificial Intelligence Technologies And Solutions, Q1 2017,” Forrester Research Inc., April 18, 2017

Remember— Knowledge

Information only becomes knowledge when we can remember it and when it's relevant in answering a question, which is why data storage and retrieval are so important. Managing this knowledge typically involves the use of a central repository.

AI turns knowledge management on its head. Instead of being driven by the data and systems in which it resides, AI is driven by the needs of the business and the value it brings in shaping future direction.

Knowledge is power—and AI can help to release it.

Remember

What we can do now

- Knowledge database using text analytics and NLP for quick retrieval
- Human intervention consists of database maintenance and exceptions handling

Where it's heading

- AI-based knowledge platform employing Deep Learning techniques, text analytics and NLP, advanced analytics, and knowledge extraction algorithms
- Human intervention in managing configurations, monitoring performance, and supporting continuous improvements in intelligence and speed of retrieval



What I have observed in companies that do AI well, is they have a policy and process around data governance and treating data as an asset.”¹⁰

Professor Michael Schrage
MIT Sloan

¹⁰ TechRadar™: Artificial Intelligence Technologies And Solutions, Q1 2017,” Forrester Research Inc., April 18, 2017

Think–Analyze

Just as human minds apply thought to knowledge, AI detects patterns, recognizes trends, and applies algorithms to information to determine appropriate actions or predict future consequences.

What's more, AI can do this at scale. Deep Neural Networks (DNNs) can perceive patterns humans would miss because the data sets within which they're operating are simply too large for any one mind to accommodate.

For example, in the next two years, most major businesses will redefine their processes and products to deliver enhanced customer experiences with AI-based technologies. These will have derived courses of action from vast data sets of customer interaction.

Think

What we can do now

- Language libraries and other tools are used to analyze market trends, service levels, and customer expectations
- Human intervention in the interpretation of statistical results

Where it's heading

- Real-time machine learning using Deep Learning-based analytics, pattern recognition, and predictive analytics
- Human intervention in managing configurations, monitoring performance and supporting continuous Deep Learning, pattern recognition, and predictive analytics

“*[AI] involves self-learning systems that use data mining, pattern recognition, and natural language processing to mimic the way the human brain works, without continuous manual intervention.*”¹¹

11 "The 2017 AI-Powered OneOffice Premier League Table," HFS Research Ltd., August, 2017

Act–Service

If the other four senses described in this document are about processing information in various ways and engaging with people, this one is more dynamic. It's about using technology to complete processes and tasks.

Even though these robots aren't physical—you don't see them spray-painting car bodies on assembly lines—they are no less useful and no less tailored to the tasks they perform.

Common current examples of robotic process automation (RPA) include resetting a password, placing a customer order, or processing a supplier invoice. In the future, RPA will be extended by AI: Deep Learning algorithms will learn from historical data and decide appropriate processes and approaches to take in the delivery of services.



Organizations are now convinced of the benefits that AI can bring. They are now asking themselves where and how they should invest.”¹²

Gordon Schembri
Principal Digital
Technology,
GE Oil & Gas

Act

What we can do now

- Rule-based RPA with service management tools for tracking
- Human intervention for exceptions handling (typically at levels of 20%-30%) and script management

Where it's heading

- Fully-automated service delivery employing NLP, NLG, Deep Learning, biometrics, image and video analysis, and semantic technologies
- Human intervention in managing configurations, monitoring performance, and supporting continuous Deep Learning

Weaving in AI and intelligent automation to transform your business

What conclusions should we draw here? First, of course, that AI is set to enhance and transform the way major enterprises and their employees manage their processes and serve their customers—and second, that AI reaches its fullest potential when it's approached with equal intelligence.

AI and intelligent automation need to be woven into your organization, not bolted onto it. This means taking time before any implementation to understand the exact needs of your business, the efficacy of your processes, the extent of your current technology, and the capabilities of your workforce.

To learn more about Capgemini's Automation Drive solution and how you can augment your business with AI and intelligent automation, please get in touch. You'll find our contact details below.

¹² Ibid.





Technology Talk



Interconnectedness —the Solution to its Own Problem

Erwan Le Duff

Head of Prosodie-Capgemini

The evolution of technology has made it possible to manage customer interaction on a single, interconnected channel. In an era where communication between organizations and their individual customers are fuelling an increased number of interactions, why not use smart technology to take care of your low-complexity cases?

Until only a few years ago, most businesses knew little about their customers, and what they did know would be in departmental silos.

The sales team would perhaps know customer order history, and business-to-business (B2B) salespeople would probably know the key people in procurement roles by name, but that would be about it. The accounts team would know late payers from good customers, and the marketing department would have a general sense of customer profiles segmented by product line. What's more, the kind of interactions to obtain this knowledge was limited—they'd be face-to-face, over the phone or, in more recent years, via the web.

The bad news ...

But now? Now it's much more complicated. Any customer, commercial or retailer can use several channels of communication to engage with the business: voice via landline or mobile, online via laptop, tablet or smartphone, text messaging via these same different device options, and of course straightforward, old-fashioned, face-to-face conversations.

Online interactions are themselves further segmented via the organization's website, its social media feeds and via third parties. So for every one of its thousands or possibly millions of customers, an organization will need to stay on top of multiple individual interactions. In short, customer service just became massive.

... and the good!

The very technology and its associated interconnectedness that has led to this proliferation of contact has also produced a realistic means of addressing it, even at scale.

First, let's look at internal processes. Integrated systems using cloud-based models break down these silos, making it much easier to share information between different organizational disciplines. For instance, people in marketing can now get to know their customers in far more detail, and as a result can furnish their sales colleagues with tailored and compelling propositions.

Then there's the external process, the customer experience. An interconnected organization is much better at handling high-volume, multi-channel interactions, making the process easier and smoother for customers. It can do this partly because the technology makes it possible to introduce a "triage" approach, prioritizing cases and handling each of them in the most appropriate manner, leveraging a complete vision of the customer's contact history.

Therefore, in an era where simpler and more efficient communication between organizations and their individual customers are fuelling an increased number of interactions, if it's impossible to deal with each customer query personally, why not use smart technology to take care of low-complexity cases?

In an era where simpler and more efficient communication between organizations and their individual customers are fuelling an increased number of interactions, why not use smart technology to take care of low-complexity cases?

Enter the “bot”

Systems are now able to develop knowledge about individual customers and their typical communication paths. For most interactions, automated processes or “bots” can be employed, sourcing responses to an individual customer’s written requests or queries, and replying in the manner of a regular online chat. These technologies are increasing in sophistication to accommodate voice, so calls can be received and answered using natural language, as though the customer were speaking to a live agent.

What’s more, the system learns. For example, if a person doesn’t at first understand the automated response given, the technology finds a solution and then logs the instance so that next time it will express itself in a different way. And if stress is detected in a caller’s voice, the bot recognizes that this is no longer be a low-complexity case and switches the call to a live agent for resolution.

Another example. At Capgemini we’ve developed a multi-channel chatbot for one of France’s biggest healthcare insurers. Operating in text mode as a mobile app but also in voice mode by phone, the technology can identify the customer, understand his or her query via a machine learning engine, narrow down the need using detailed questions and answers, and then deliver a personalized response.

In more tangible terms, if the customer has a new prescription from an eye test, the chatbot can advise what the cost of a new pair of glasses will be within the caller’s healthcare plan and the location of the opticians closest to the customer’s home.

Everyone’s a winner!

What’s important about these developments is that they’re holistic. The technological evolution that has created customer bases of millions—engaging with the organization in four, five, six or more different ways—has also made it possible to ensure that everything acts as one, increasingly sophisticated, automated and highly manageable channel.

It’s good for everyone:

- First and foremost, the needs of the customer are met.
- The organization can handle every interaction in a way that delivers the greatest satisfaction to the customer.
- And the call center handling personal voice responses is transformed, adding more value to the customer experience than ever before, and enabling customer service agents to focus on more value added tasks.

At Capgemini, we’re contributing to this evolution by introducing an enhanced bot element to our Odigo Concierge solution. Not only is it backed by high-level consultancy to help define your organization’s needs, but it can be delivered on a BPO basis and boasts dedicated assets such as a sectorial and functional language corpus.

It’s joined-up thinking in an increasingly joined-up world.

For most interactions, automated “bots” can source responses to an individual customer’s written requests or queries, and replying in the manner of a regular online chat.



Voice-based Chatbots— a Revolution in Customer Relations

Thomas Saint-Hilaire

Vice President, Digital Platforms, Prosodie-Capgemini

While phone is still the most important channel for customer service, voice-based chatbots represent the holy grail of customer service automation, enhancing customer experience to the latest digital standards and delivering a rapid return on investment.

Chatbots are on the verge of an unprecedented disruption to customer relations.

A revolution in experience and productivity

After transforming games such as chess, Jeopardy!® and Go, artificial intelligence (AI) is set to radically transform customer services. This major upheaval will take the shape of smart conversational interfaces known as chatbots that answer client requests through highly developed conversations, via text (on digital channels such as social networks, mobile apps and websites) and speech (on the traditional phone channel).

Fast in exchanges and self-learning, providing precise answers to customer requests and offering a personalized business transaction service (purchases, bookings, etc.), chatbots are set to replace contact center agents (who will be left to handle the most complex requests) and mobile apps and websites (the interfaces of which will never be as intuitive as the natural language we all learn from birth). Representing a revolution in customer experience and productivity, chatbots are on the verge of an unprecedented disruption to customer relations.

Machine learning changes everything

Paradoxically, conversational interfaces in customer relations have existed for quite some time. The avatars found on websites are functional text-based chatbots that offer services via chat windows. Similarly, natural language interactive voice response (IVR) services, which have existed for more than 10 years, are able to understand a user's sentence and deliver adapted self-service (for example, bank balance) or connect the user with an agent able to answer his or her request.

Although these interfaces have limited Natural Language Understanding (NLU) capabilities (avatars only detect key words), machine learning changes everything. Put simply, machine learning recognizes a pattern after first learning it. Specifically in customer relations, machine learning can identify a customer's intent—in other words, his or her need.

Learning consists of giving examples of sentences to the learning machine and detailing the corresponding intention. To be efficient, this learning has to happen before a chatbot is launched and continue throughout the first few weeks after launch. If the chatbot doesn't recognize the intention with enough reliability, human intervention becomes necessary.

A well-trained intelligence chatbot can deliver truly impressive results that can be compared to those gained through human intelligence. However, learning has to be supervised by a reliable operator or the chatbot's effectiveness risks being corrupted. This is exactly the problem Microsoft encountered in 2016 with its Tay chatbot, which experienced drifts that led to the project being abandoned.

Machine learning algorithms aren't new, and are easily accessible through efficient open source software or ready-to-use APIs (for example, Google, Amazon, Microsoft and IBM).

Beyond machine learning, there is now an ensemble of mature and accessible technologies that are enabling the construction of chatbots—speech to text, text to speech and API management. Last but not least, social networks have paved the way for mainstream use of written conversations as a method of expression and communication.

Text-based chatbots for customer relations—a recent reality

There are now dozens of chatbot engines on social networks, such as Facebook Messenger and Baidu, which enable organizations to use simple interfaces to program dialogues in text mode. Paradoxically, the overwhelming majority of these systems don't use AI, but only refer to closed questions to feed dialogues. When open questions are formulated, the answers are analyzed either by simple key word research or by an actual person hiding behind a chat interface.

A chatbot's ability to automatize customer service is therefore restricted to very simple requests. To broaden chatbots' area of action, more sophistication is needed, which typically includes:

- Engaging the customer in conversation via the digital channel of their choice—social network, mobile app, website or intranet.
- Securing user identification and authentication through data from the customer database.
- Analyzing the customer's request via machine learning to detect the client's intention and spot complementary information—for example, a date, place or model.
- Leveraging an efficient dialogue engine to ask a series of open or closed questions that identify the customer's request, using already available information.
- Providing the customer with the adapted information (text, link, PDF, video, etc.) or service (reservation, purchase, etc.) through connections with other IT/IS.

In addition, to deliver a complete end-to-end service, a provider must:

- Supply the AI engine with collections of relevant intentions for initial learning.
- Implement operator assistants to secure supervised chatbot learning.
- Describe the most relevant and strongest dialogue for each intention, predicting all possibilities, including when the user changes their options or wants to go back.
- Enable a connection between the user and a real agent if the chatbot can't handle the customer's request, and

ensure transmission of information collected by the chatbot during the conversation.

- Ensure security of the overall service, both through the cloud and on-premises.

However, building this kind of sophistication isn't easy, and providers offering the full set of functionalities in an integrated way include IBM's Watson Conversation and Microsoft's Bot Framework. Capgemini's new Concierge service also intends to compete in this space.

These features will enable chatbots to fulfill their promise of striking up an anytime, anywhere, any device conversation; understanding the customer's need; chatting "just like a real person;" providing an appropriate answer to both simple and complex requests; and forwarding the request to a real agent if appropriate—all of which enhances customer experience to the latest digital standards and delivers a rapid return on investment, including an increase in the self-service utilization rate and increased customer satisfaction.

Voice-based chatbots—an emerging offer

With the phone still the most important channel for customer service, and because call center costs remain high, voice-based chatbots are considered the holy grail of customer service automation.

At first glance, the principle behind voice-based chatbots is simple—it transcribes speech into text, uses a text-based chatbot with adapted dialogue and then vocalizes the answer. However, effective realization is much more complex, as most chatbot solutions only offer API toolboxes without securing the recognition rate of speech-to-text or the latency time from beginning to end. In fact, the objective is to get close to what natural language IVR can offer, but with a much broader dialogue capacity.

Voice-based chatbots also offer advanced functionalities, including vocal biometrics that provide seamless customer authentication, emotion analysis to monitor the conversation and synthetic voice adapted to the customer's profile.

Chatbots represent the holy grail of customer service automation. They can automate 10–40% of interactions, lower average call duration by up to 10–30%, and deliver an appealing customer experience to, although not exclusively, millennials.

Organizations should adopt AI now!

Far from being a myth, AI within customer relations is a reality, and organizations need to be ready. But just like every new digital technology, implementation of a minimum valuable product (MVP) on a limited perimeter is recommended.

Capgemini helps organizations take action with its end-to-end Odigo cloud-based contact center solution, combining both a multichannel chatbot solution and the service to implement it.

Jeopardy!® is a trademark of Jeopardy Productions, Inc.

Chatbots are able to automate 10–40% of interactions, reducing the processing time of real agents by 10–30%.



A comprehensive, one-stop cloud contact center solution that puts your customer at its heart

With most businesses finding it difficult to keep up with the ever-rising benchmark of excellent customer service, Capgemini's Odigo cloud contact center solution enables you to focus more on your individual end user and deliver outstanding business value, including:



-  **Enhanced customer experience**
-  **Reduced total cost of ownership**
-  **Improved decision-making**
-  **Increased customer loyalty and brand reputation**

For more information, visit us at:

<https://www.capgemini.com/service/business-services/enrich-your-customer-interactions/odigo-customer-interaction-hub/>





Happy Agent, Loyal Customer

Eric Dadian

President of Association Française de la Relation Client

Eric Dadian, president of Association Française de la Relation Client (AFRC—the French Association for Customer Relationships), shares insights on how organizations can empower their employees and customer service agents to improve their customer experience and build customer loyalty.

Hello Eric, can I start by asking how you imagine the customer service agent of tomorrow will look like?

Tomorrow's agents will be versatile, autonomous, proactive employees, who will work across numerous channels. They will be able to handle written and spoken requests across channels, as well as monitor and track what is happening on social networks.

What we're seeing is that many organizations have abandoned scripts and given their customer service agents the freedom to carry out commercial negotiations as they think best. However, to build human relationships and customer intimacy, agents need tools that enable them to get to know their customers and their histories in the blink of an eye—who they are, have they already contacted us, do they have any requests in progress. Agents can follow the correct procedures of their particular organization, but also use their own initiative in a negotiation when necessary.

Agents will be mobile and have efficient tools, and thanks to the multitude of available channels such as instant messaging and video, they won't have to sit at a desk all day—they will be able to start a conversation at any time and any place.

Customer relationship departments have been developing the concept of "symmetry of attention" for around ten years. Do you see any related practices being implemented in organizations?

Some leaders have been implementing the "symmetry of attention" for several years, for example, Gaz Réseau Distribution France (GRDF—a French gas company), where they firmly believe that the employees are the primary ambassadors of the brand.

Out of 11,000 employees, 1,000 regularly express themselves on social networks. This phenomenon is spreading across all sectors, especially the luxury sector. There are new customer-oriented positions such as community managers, data analysts and robot assistants that highlight the importance of customer relationship teams whose task it is to know and satisfy their customers and foster customer loyalty.

Customers will be loyal and will form loyal communities only if they feel that customer service agents are able to convey emotions. Only a human being can be empathic, kind, attentive and can create a genuine, human relationship with a customer—we can see or hear the other person smile, even on the phone.

Happy agents will certainly attract loyal customers. According to one of our studies, 95% of consumers think that an organization that makes its employees happy and gives them enough autonomy can offer better services.

Will organizations that put the idea of "employees first, customers second" into practice gain better results?

I believe they will. Organizations not only value their financial resources, but also their human capital. Organizations that offer good working conditions, great flexibility and training sessions for their employees will have lower turnover of staff. Moreover, employees who gain this experience and become even more valuable workers will remain loyal and committed to their organization. A lack of employee commitment can be very expensive.

According to American research-based, global performance-management consulting company Gallup, the results of the latest studies are worrying: only 13% of employees worldwide are committed to their work. To make matters worse, there are twice as many actively uncommitted employees (24%). At the same time (also according to Gallup), it is estimated that a lack of commitment by employees costs the US economy around \$450–550 billion, while 72% of motivated employees are convinced that they can positively influence the customer service.

Tomorrow's customer service agents will be versatile, autonomous, proactive people, who will be able to handle written and spoken requests across channels



Considerations for Implementing a Global Contact Center

Bruno Sivardiere

*International Odigo Business Developer,
Prosodie-Capgemini*

With voice still the most important channel of customer engagement, and given that traditional phone networks don't work well across long distances, any company considering setting up a global virtual contact center should pay attention to the global capacities of its customer engagement solution provider.

It's no secret that multinational organizations continually strive to implement consistent technologies within the countries they operate in. For example, they often run similar back-office IT environments across geographies to enable smooth interactions between their head office and regional sites.

Likewise in front-office IT, Salesforce has ushered in a true era of globalization due to its implicit faith in the cloud. Helped by the expansion of data networks that enable connections from any location around the world, Salesforce operates a datacenter establishment strategy that overcomes data residency issues.

Customer relationship management (CRM) products such as Salesforce are just one side of front-office IT, with customer interactions management across channels such as phone, email, live chat, social media and video being its complementary partner. And in this other area, too, cloud is making globalization possible! Internet access and/or a PSTN (public switched telephone network) number are enough for any contact center agent to be connected to a "global virtual contact center"—that is, a virtual contact center spread across geographies, unified by a single customer engagement solution.

However, with voice still the most important channel in this field, and given that traditional PSTN networks don't work well over long distances, any company considering setting up a global virtual contact center should pay attention to the global capacities of its customer engagement solution provider.

For example, a provider should be able to draw on following assets:

- A widespread network of telecom Points of Presence that offers optimal distances to both end users and contact center agents, and thus guarantees a standard call quality, especially when calling from the far-flung corners of the planet.
- Reliable partnerships with international telecom carriers to cover the globe in terms of number procurement and call transportation.
- A strong background and technical skills in telecoms, which are required to overcome potential latency issues, in any geography.
- Proven expertise in telecom regulations to ensure compliancy with local constraints and requirements for number allocations, number portability, and recording limitations, etc.
- Worldwide consistency in offerings despite language or time zone challenges.
- References with truly global clients.

By addressing these points effectively, your provider's global customer engagement solutions can simplify the administration of your virtual contact center—while also respecting local specificities—from two main perspectives:

- **Centralized management** – smooth rollout, simple configuration and rapid change in any contact center location, with synergies between geographies enabling "follow the sun" patterns or resource-sharing models.
- **Enhanced visibility** – a unified view of agent activity across geographies provides consistent data for real-time supervision, historical reporting and quality of service monitoring, with detailed and consolidated statistics in just a few clicks.

In a nutshell, a customer engagement solution provider that delivers truly global solutions gives you all the benefits of a traditional, single country virtual contact center, but at a global level! Customer engagement beyond borders may sound complex, but it's within reach and can deliver a range of opportunities across sectors.

Internet access and/or a phone number are enough for any contact center agent to be connected to a "global virtual contact center"





**Centers of
Excellence**

“Centers of Excellence”

– a look at some of the innovations and achievements from across our global delivery centers.

North America

Salem

Sarasota

Guatemala City

Krakov, Katowice

Campinas
Blumenau

India
Noida
Bangalore
Chennai
Kolkata
Nanhai

North America

Our Integrated Management System, along with the leadership of our Global Delivery Network and standardization in North America, have contributed to IGATE integration into Capgemini’s Business Services methodology—not only integrating processes but also different business cultures.

Guatemala City

Delivering growth of 43%, Capgemini’s Guatemala center has filled almost 400 positions, 300 of which were achieved in just two months and 80% requiring a high level of proficiency in English to service the US market. Our significant growth once again reinforces the strength of the Guatemalan market capability and our position in the market as an employer of choice.

Sarasota

The Sarasota delivery center will soon go live with a high-end financial services solution that includes all Capgemini workflow, robotic process automation (RPA), productivity, document management and accounting tools for its transformation journey.

Blumenau

Our Blumenau delivery center has had a fruitful year of collaboration with Linde, awarding Capgemini a RAS Life Award in recognition of successfully transforming Linde’s finance operations in LATAM.

Campinas

Our Syngenta HRO team within our Campinas delivery center is working on e-Social and next-generation implementations to increase compliance, level of automation and customer connectivity.

Krakov, Katowice

Our Polish delivery centers have recently won three awards in the Employer Branding Stars contest: the best usage of social media, the best offline activities and the best creative concept with Birthday Capsule (with our partner Link Leaders). Our centers have also been nominated for Top 10 Polish employers by Puls HR.

India

All legacy IGATE centers across India (Noida, Bangalore and Mumbai) are now IMS certified having completed the external ISO Audits for Quality (ISO 9001), Security (ISO 27001) and Business Continuity (ISO 22301).

Noida

Our Noida delivery center successfully went live with two new Business Services-FS projects incorporating innovative solutions with intelligent automation for Wills (a Global Risk advisor, Insurance and Reinsurance brokerage company) and Chubb (the world’s largest Property and Casualty insurance company).

Kolkata

The outstanding work carried out by our CBS F&A team in driving efficiency and enhancing the quality of services delivered to the Group CFO’s offices was recently recognized by the prestigious DL Shah Award (Gold Category) from the Quality Council of India (QCI).

Bangalore

The Bombardier engagement based out of our Bangalore delivery center was recently certified to the AS9100:2016 (Revision D) standard for its Aerospace Technical Publication service offering with a perfect audit score for the fifth year in a row!

Chennai

Our Chennai office at Prestige Cyber Towers (PCT) has become a pioneer in agile workspaces by hosting Capgemini India’s first truly agile workplace! Designed to foster collaboration, the spacious office space has 250 allocated desks that can house almost 400 team members.

Salem

A year since the inauguration of its new facility, our Salem center continues to grow and expand. Aligned to our leadership vision and with the growth in client requirements from the region, our Salem center is expanding to accommodate 250 new seats, taking the center population for Salem to above 700 team members.

Nanhai

Our Nanhai delivery center has successfully renewed a contract to transform a multinational packaging company’s Finance and Accounting function. Further transformation and operational effectiveness will be achieved through the introduction of robotic process automation (RPA), and will lead to significant cost savings.

Center Spotlight— Poland

Location:

Krakow, Katowice

FTEs: 4,200

Languages: ~30

Clients served: ~40 (for outsourcing scope), plus another 40 for transformation projects done by Business Services Poland teams.

Services:

Cappgemini Poland's portfolio of services include:

- **F&A** – procure-to-pay (P2P), credit-to-cash (C2C), record-to-analyze (R2A).
- **HRO** – workforce administration, reward, payroll, recruitment, tax, service desk.
- **Supply Chain**
- **Transformation** – process consultants, automation consultants, RPA specialists, platform specialists, project and program managers, organization change managers.
- **Financial Services** – claims, insurance and banking processes.

Why Poland?

Poland ranks among the top three in shared service centers (SSC) and business process outsourcing (BPO) worldwide, along with India and China.

- **Infrastructure** – an accessible location with a high level of development, continuously expanding investment in infrastructure, and modern, efficient connections to every European country and good connection outside Europe.
- **Stability** – most dynamic economy in Central Europe, flat inflation rate with a stable and positive macroeconomic outlook, and a member of the EU, NATO, OECD, WTO and Schengen Area.
- **Demography** – population of 38.5 million, educated workforce with 500,000 graduates annually, a high number of international students, and superb language skills among graduates.

Cappgemini Get to know us

Established in **1996**, Cappgemini Poland has become a powerhouse with almost **6,500** talented professionals providing:
 | Business Services (BSv)
 | Infrastructure Services (IS)

Class A offices

- Always-on connectivity
- Business continuity
- Data backup/recovery



Sectors



4,200+

Professionals

1,000+

Credit-to-Cash professionals

800+

Procure-to-Pay professionals

400+

Record-to-Analyze professionals

300+

Transformation professionals

250+

Financial Services professionals

200+

Hire-to-Retire professionals

Why Krakow?



Low costs



Interaction/Expertise /Transformation hub



ca. **800,000** city population



students **182,000**



50,000 graduates annually



21 universities



Thriving start-up and tech scene attracting IT, BPO, and R&D investment

Business center for the world's largest organizations



Let's Talk

97% employees speak English | Polish

Services in **30** languages



About Poland

Demography

Young, educated workforce (500,000 graduates annually)

Excellent language skills among graduates

High number of international students



Infrastructure

Strong infrastructure investment

Efficient transport connections across the EU



Stability

Dynamic economy and a business-friendly government

Flat inflation rate and a positive macroeconomic outlook

EU, NATO, OECD, WTO, and Schengen Area member



Key facts

- Strong economic growth
- Advantageous labor costs
- High-caliber language skills
- Young, educated talent pool
- Renowned globally for BPO/ITO/SSC talent and experience

The Top European Outsourcing Destination

Krakow was ranked 1st in Europe and 9th worldwide in the 2014 "Tholons Top 100 Outsourcing Destinations" report



Capgemini Poland—21 Years of Delivering Success

Justyna Piwowarczyk

Center Director Europe, Capgemini's Business Services

Justyna Piwowarczyk, Center Director Europe for Capgemini's Business Services, talks to Innovation Nation about developing Capgemini Poland into a center that delivers Intelligent Automation and process transformation, staffed by "knowledge workers" who understand where automation can be applied.

Innovation Nation | Could you start by giving us a bit of history behind Capgemini's delivery centers in Poland?

Justyna Piwowarczyk | We started back in 1996 as PricewaterhouseCoopers (PwC), and Capgemini acquired the business process outsourcing (BPO) business and shared service center in Krakow in 2003.

I joined in 2002 when there were less than 100 people and only two clients—British Petroleum (BP) and International Paper (IP). For the next 10 years after 2003 we recorded very dynamic growth, achieving 3,000 headcount by 2013. The people that joined the organization at this early stage in essence created the organization by continuously developing and improving the methods and assets we are using today.

At the beginning, we mostly offered a lift and shift model that was not so much transformation, but more project management and how to move work from one place to another—people recruitment, IT set up and repeating the same work for the client remotely. The focus then became more about transformation, and we became the organizational office for process transformation involved in developing our Global Process Model© (GPM) and Global Enterprise Model© (GEM).

And this brings us to where we are now—the era of Intelligent Automation and the "Five Senses of Artificial Intelligence," which many of our people have been involved in developing.

Could you give some examples of innovation or outcomes already delivered?

I have already mentioned our GPM and GEM, our innovative way to approach a new target operating model and how to assess the client organization not only in process but from the entire organization perspective. GEM comprises seven levers that look at a client's organization and we carry out benchmarking and a maturity assessment of where our client is against leading practices. It has proved itself to be a very innovative tool to transform a client organization to a best-in-class organization.

Another recent example is Intelligent Automation. Everything we read about Intelligent Automation on the internet tells us that it has become just another buzzword. But how we understand and use Intelligent Automation at Capgemini to transform our clients' organizations is extremely innovative. The "Five senses of Artificial Intelligence" concept, for example, focuses on using automation to deliver enhanced business outcomes for our clients' finance operations.

How are you developing the knowledge and skillsets of your teams?

This is a very good question and it actually relates to what I mentioned at the beginning—starting from lift and shift, focusing on process transformation and enterprise transformation, and finally Intelligent Automation. In the same way that we've developed our delivery models, we've also developed and built up the skillsets of our people.

At Capgemini, we use Intelligent Automation to deliver enhanced business outcomes for our clients' finance operations.

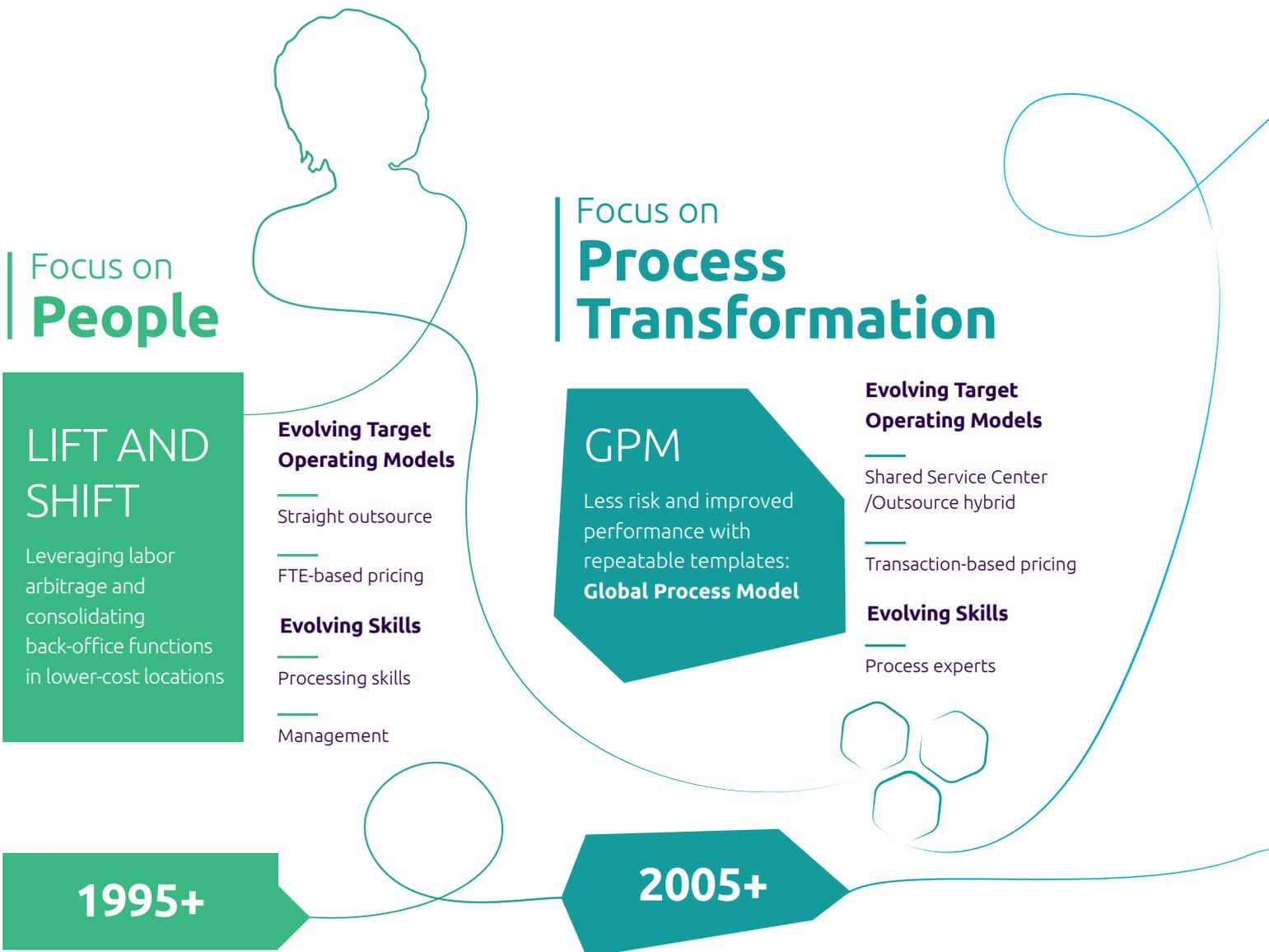
Fifteen years ago, the most desirable profile was someone who could process invoices quickly. Speed and quality of data entry were the skills we would look for. There was one person in the team who processed 300 invoices every day, no matter how complex the invoices were. He was just very quick with data entry, while other people would process between 60 and 100. So we were looking for people with a similar profile, along with project managers who could help with transition projects.

But when we evolved to process transformation, the profile changed to a process expert; someone who could handle, for example, procure-to-pay (P2P) and suggest how to make the process quality better, or someone who understood how automation could make the transformation process faster and more effective. So we not only

required process experts, but overall transformation consultants.

With Intelligent Automation, we now require “knowledge workers”—people who know their process and understand the technology or where automation can be applied. We need people who are good at interacting with our clients and who can come up with innovations and improvements in putting the customer at the center of our clients’ operations. This has obviously required different management styles, and our goal is to select and manage the right people in the right way, followed by the right learning, training and certification our people needed for this new era of automation.

I would also like to underline that we aren’t a classical outsourcing organization focused on transactional work. Primarily, we are a people business, and the way we



approach and focus on our clients, the innovation and value we deliver, all the new methods and assets we create, and how well we deal with complex situations and end-to-end processes are unique.

Finally, what's next for your delivery centers? What's next for Poland?

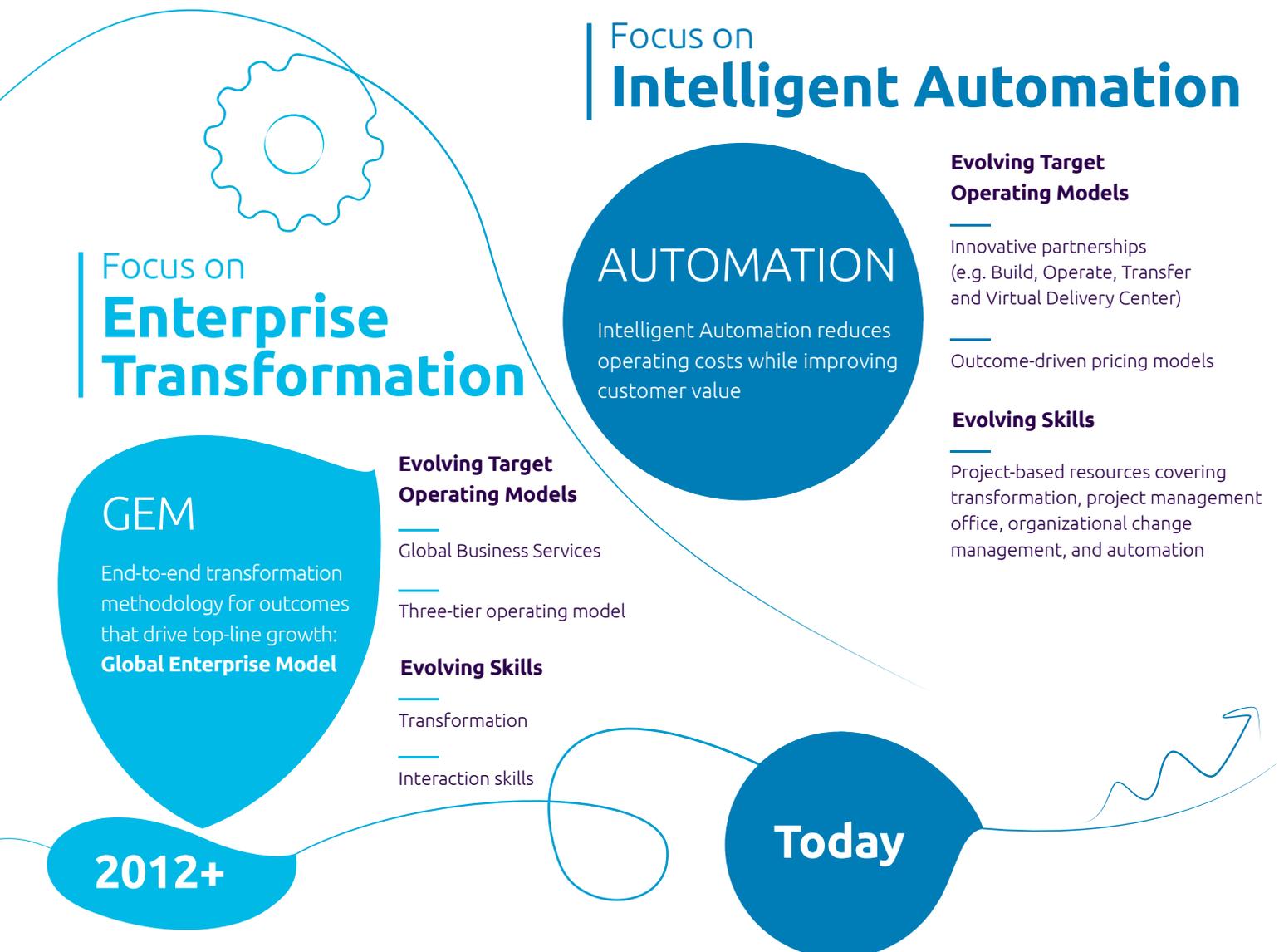
This is another very good question, especially as I've recently moved into the role of center director for Capgemini's European delivery centers. What is currently happening in the outsourcing market is very interesting. We have a dynamic environment and things are changing, but we are now at a new evolution point beyond classical outsourcing. With the advent of automation and robotics, it's more about how automation can eliminate mundane repetitive work and release capacity to focus on more stimulating

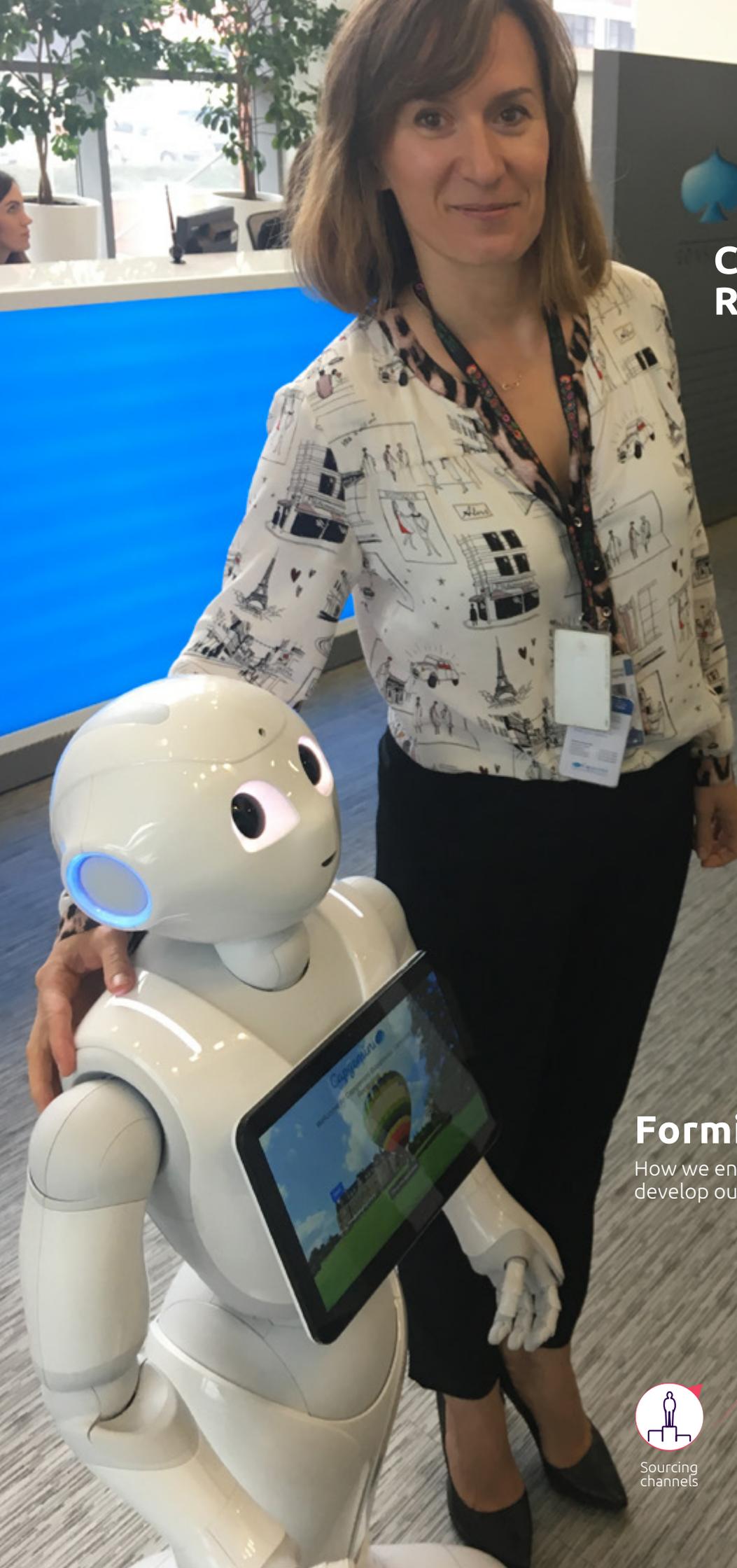
work for our people to increase value add activity for our clients. We now work as a strategic transformation partner rather than an outsourcing provider for our clients, and our success is measured in business outcome improvement and value delivered versus how many FTE of scope we take over and reduce in the outsourcing deal.

In terms of what's next for our delivery center, from a strategic point of view, as an integral part of our Global Delivery Network within Capgemini's Business Services, Capgemini Poland will focus even more on expertise and transformation of processes and interaction services. To achieve this, we are required to speak an increasing number of languages and deliver excellent customer service at a high client stakeholder level. So, we are developing our people to acquire these new skillsets at increasing scale.

Another important aspect is our readiness to deliver an agile approach for much shorter projects. Our clients typically contract with us for three to five years, which means we are in a state of constant renewal that requires even more dynamic thinking about innovation, productivity and automation. This is both a challenge and an opportunity for us going forward.

These challenges and opportunities have also been the same for me personally, and while Capgemini Poland has developed greatly over the last 16 years, I have also developed with it. And now, with the era of intelligent automation and enhanced customer centricity, we are well positioned to embrace these challenges and opportunities to deliver even more success together with our clients!





Corporate Social Responsibility

Community engagement

Over 70 community engagements and over 5,000 beneficiaries



Business Run
Kraków & Katowice

Over 70 community engagement projects where employees share skills and time with local communities

Project Theatre—Capgemini actors perform for children; Winner of the Global Community Engagement Awards

Blood donation

Fundraising, collections and emergency support actions for people in need

Forming Your Team

How we engage and develop our talent



Learning & development



Industrialized onboarding process



Sourcing channels

Environmental sustainability

- Carpooling platform
- Car-free day
- Waste segregation
- Environmental policy in place ISO14001 certified
- Collecting bottle caps to exchange for funds for charities
- Bike friendly certificate for office buildings



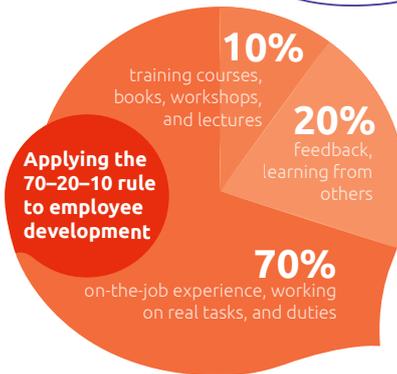
Values and Ethics

- Positive feedback from client satisfaction surveys
- Code of business ethics, compliance network and policies
- Customer service training included in onboarding program
- Employees feel personally responsible for client satisfaction (latest global employee survey results)



People culture

- Diversity Charter
- Women @Capgemini
- First innovative inclusion project for people with disabilities: Win with Capgemini
- Business Parent Program
- Celebrating Diversity Weeks



Resources supply chain and recruitment

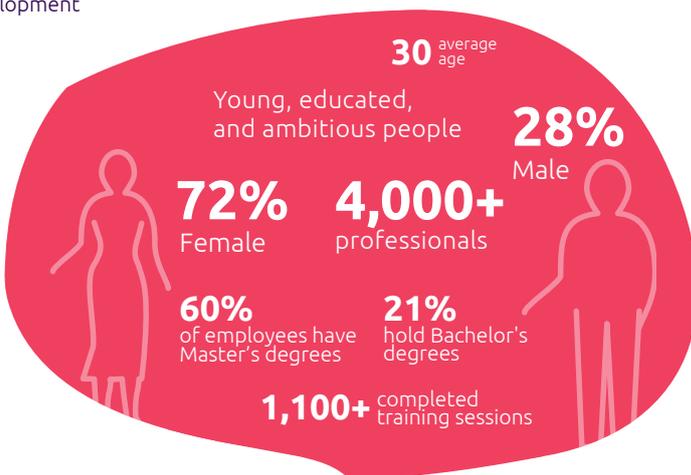


Talent management and development

Continuous Development

- Stretch assignments
- Manager support
- Expert communities
- Instructor-led courses
- Regular feedback
- Capgemini University
- Language upskilling
- E-learning
- Process academies
- Blended learning

YOUR CAREER





The Opportunity of Change in Business

Justyna Piwowarczyk

Center Director Europe, Capgemini's Business Services

Managed properly, major changes such as digital transformation can drive significant benefits across an organization. But without appropriate direction, there's a danger change could damage the reputation of an organization's brand identity and customer service.

Could I start by asking you to fold your arms across your chest? Do it naturally, without thinking about it.

Now fold your arms again—only this time, make a conscious effort to reverse the position of your arms. The arm that was tucked inside against your body should now be outside, and vice versa.

How is that for you? The chances are it feels, well, wrong. Uncomfortable. It's not how you usually do it. Switch back to normal now, and it will feel so much better. Why? Because it's familiar. And that's the point I want to explore here: change can feel awkward because it takes us into uncharted territory. Why would anyone want to go there?

Time to take control

The answer is obvious, of course. We ought to want to go there because if things don't change there's no possibility of improvement. Folding your arms is pretty trivial—but in business, no matter how daunting the prospect of change might be, it should be seen as an opportunity, as something to be steered rather than simply endured.

For instance, when I started at Capgemini in Krakow 15 years ago, the market we served in India, China and other parts of Asia-Pacific was quite small. Client invoices used to arrive for processing in large boxes, and we waded through them, page by page.

Over time, the paperwork diminished as the technology changed—but our role changed too. What began pretty much as data entry became something much more valuable for our clients and much more fulfilling for us. We were no longer

merely running processes, we were improving them.

Since then the pace of change has accelerated, and now we're in the age of digital transformation it's stepped up several gears. At Capgemini, our Business Services team works with and for several major international enterprises, and their degree of preparedness for these fast-moving developments can vary quite a bit.

Some of them have never embarked on major exercises like these and have few, if any, appropriate internal skills. But they recognize they need to make the move and are happy to take their lead from us.

Others have their own understanding and experience. They've already embarked on the transition, and they look to us to broaden and deepen their strengths in new phases of their development; for instance, by introducing enterprise-wide transformation that enables various processes to deliver to their full potential.

Leading from the front

These processes are becoming embedded in enterprises. For example, robotic process automation (RPA) is being built into the process (Finance, HR, supply Chain, etc.), and at the same time, organizations are flattening and becoming less hierarchical. These developments have the potential to change the spirit and character of businesses and their workforce teams. That's why in my view it's so important for senior executives and managers to recognize this possibility and give people the tools to address it.

Once again, it's a change that needs to be steered rather than merely allowed to happen, because if it's not directed,

there's a danger it will be to the detriment of brand identity and the organization's customer service. In short, leaders need to set an example. If they appear to be lost or indifferent there's no reason to expect anyone else to act any differently.

Everybody wins

Properly managed, the difference major changes such as digital transformation through intelligent automation make can be of significant benefit—not just to themselves and their customers but to the people they employ. I'll be covering the opportunities change can bring to employees in my next post.

In the meantime, here's another small physical exercise for you. If you have any personal items on your desk—photos of holidays or of the family—try putting them in a different order, or moving them to the other side of your keyboard. It may feel a little odd, but you'll be seeing them with fresh eyes.

On a broader scale, isn't this the major opportunity change can bring?

Digital transformation can significantly benefit organizations, their customers and the people they employ.



Enabling Change, Creating Impact

Karolina Długosz

CR&S Manager, Capgemini Poland

Karolina Długosz, CR&S Manager, Capgemini Poland, talks to *Innovation Nation* about the crucial role Capgemini Poland is playing to drive social change within local communities.

Innovation Nation | Could you start by talking briefly about the history of Capgemini Poland's CR&S program and the scope of main projects?

Karolina Długosz | Capgemini Poland has been making a positive impact within the country's local communities through our Corporate Responsibility and Sustainability (CR&S) program since 2011. Our approach towards CR&S is a reflection of the Capgemini Group's vision of taking corporate responsibility and sustainability beyond legal compliance and philanthropy. The program focuses on creating opportunities, imparting skills, diversity and inclusion, and sustainability—and the program continuously drives engagement within our Polish team, encouraging greater community involvement.

Our CR&S strategy covers a diverse range of initiatives driven locally across the following key pillars: environmental sustainability, community engagement, people culture and our "Win with Capgemini" inclusion initiative.

Capgemini Poland's Granting Program was awarded the "Best CR&S project in Poland in 2016" by ABSL. What makes this program so special?

The "We invest in good ideas" Granting Program is part of our community engagement CR&S pillar and supports local initiatives run by our employees in Poland. The idea of the program is to empower and encourage employees across our centers to share their competencies and skills, and promote ideas to benefit the local community. Grants are awarded to the most interesting proposals by a program jury comprising people of public trust, CR&S experts, local universities, NGOs, as well as Capgemini representatives.

The Association of Business Service Leaders (ABSL) Diamonds jury awarded the program with the "Best CR&S project in Poland in 2016." We are extremely proud of the recognition this project received, and the teams set new standards and direction for the development of the modern business services sector in Poland. This is testimony to our efforts and achievements towards impacting local communities in Poland.

How is Capgemini Poland working towards disability inclusion?

"Win with Capgemini" is a disability inclusion initiative that focuses on providing employment and employability skills to persons with various disabilities across Capgemini's offices in Poland. As part of this initiative, we equip our disabled employees with assistive technologies on an everyday basis and provide them with the required knowledge and skill trainings.

For the very first time in 2016, a number of companies in Poland decided to work together as a sector towards the common goal of inclusivity. For this, we initiated "The Come CloSeR to Disability Declaration," which was signed by ABSL, the aim of which was to create a network of companies to work on disability inclusion internally within their respective companies. This included producing a guideline brochure for companies who want to employ people with disabilities and share best practices.

We also partnered with "Come CloSeR" organized by Fundacja Menedżerowie Jutra (Managers of the Future Foundation—MOFFIN), aimed at sustainable and responsible development through cooperation and experience exchanges between sectors.

What has been the impact of these initiatives?

Over the past five years, the Granting Program has enabled us to directly impact over 5,000 beneficiaries across different age groups by extending our support through grants, imparting skills and education and various other programs. This has been made possible due to the efforts of over 600 employees working across 78 projects.

Our endeavor to create a culture of inclusivity and equal opportunity has also gained positive outcomes, with a significant rise in the number of disabled employees joining Capgemini Poland. Using assistive technologies in our workplace is helping to create awareness about the potential of using such technologies adapted to the needs of employees with disabilities among our clients and other businesses.

What does the future hold for Capgemini Poland's CR&S initiatives?

We are on our way to achieving ISO 14001 certification and by the end of 2017 we will be stronger in the environmental

space. We want to continue our focus on CO₂ emissions, which we currently follow as per global regulations, to bring about further improvements.

In terms of diversity, our goal is to create an inclusive workplace and "walk the talk," for which we plan to include diversity as a key component in the management and leadership's development path. We also want to increase employee participation in our community engagements by simplifying the current mechanism and engaging those who don't have a clear idea or approach about what or how they intend to become involved.

We are also working towards becoming more aware of global risks such as extreme weather, large scale involuntary migration, major natural disasters, large scale terrorist attacks and a massive incident of data fraud, which can impact our clients and the communities we work with, to developing our CR&S policies and approach to take them into consideration.

Our approach towards CR&S is a reflection of the Capgemini Group's vision of taking corporate responsibility and sustainability beyond legal compliance and philanthropy.









Expert Insights





Six Reasons Why Digital TPAs Are Accelerating the Digital Journey for Insurance Companies

Anup Kumar

*President CHCS Services and Head of IBAS (Insurance TPA),
Capgemini's Business Services*

Despite the “no brainer” business case for insurance companies to outsource their administration to a TPA and the potential for the release of reserves, adoption rates are extremely low.

While traditional TPAs continue to deliver value to insurance companies, the timing is right for the evolution of Digital TPAs focusing on breakthrough innovation in customer experience and significant reduction in administrative spend. Insurance companies are now seeing the opportunity to fast track the Digital journey across their business by leveraging the significant investments into IT and platforms made by TPA service providers, which is leading to further consolidation of the industry.

With this in mind, there are six compelling trends that characterize and differentiate Digital TPAs:

Digital customer engagement

80% of consumer engagement in the insurance industry is currently happening through traditional paper and voice-based channels, and it's not likely to disappear any time soon. However, Digital TPAs enable policyholders to interact with a company's customer service center using the digital channel of their choice, enabling members to start their customer journey on one channel and complete it on another—providing complete flexibility and responsiveness across a broad range of demographics. Over 60% of interactions take place through digital channels, delivering more data and analytics that provide a much greater view and inform product decisions across the business.

“No regret” product launches

While traditional TPAs mimic the often inefficient process used by insurance companies to launch new products, Digital TPAs leverage digital consumer experience tools to create additional sales and distribution channels using flexible operating models to help manage risk.

This enables TPAs to carry out “no regret” launch of new products within 90–120 days—partnering with a company's growth journey if the product is successful, or continuing to administer as non-core block if it isn't. This allows companies to benefit from an agile and “lite implementation” process to experiment with product design.

A reduced paper environment

With digital customer interactions delivering information via IVR, text message, email and via customer portals, Digital TPAs focus on further eliminating paper through automating document, payment and e-statement processing, leveraging artificial intelligence (AI) to route transactions to a specialized team. Using less paper leads to more objective data collection, which translates to better insights.

More insights, less reports

Digital TPAs are in the unique position of having access to an insurance company's claims and policy data. To this end, they are investing significantly in creating useful insights and analytical models to benchmark and enhance their administration platforms for enhanced decision-making at the time of underwriting and better or more accurate claims reserving.

Conversions vs. technical wrappers

Digital TPAs offer a flexible approach to execution of conversions, converting the blocks three times faster and taking a wrapper-based approach to legacy administration platform to drive efficiencies (where it makes sense). Digital TPAs also lead with a consulting approach to identify the most optimal solution that

fits the characteristics of the insurance block under consideration.

Platform ecosystem vs. administration system

Digital TPAs are investing significantly in building out the platform ecosystem to include integrated “plug and play” third-party or proprietary applications. These are stitched together in a highly automated environment to drive efficiencies and increase productivity 3–5 times in terms of policy count handled per processor.

In essence, Digital TPAs are focusing on the specific business outcomes that have eluded the industry until now—a paperless environment, jet issuance, rapid product launches, electronic claim payments, robotics-led conversions, straight-through claims processing up to 99% for structured products, increased adoption of digital customer engagement channels/self-service adoption, and a flexible execution approach based on characteristics of the insurance block, as opposed to a “one size, fits all” approach adopted by traditional TPAs.

This transition and disruption in the industry is being driven by a few technology-enabled Digital TPAs, which calls for even closer collaboration between insurers and TPAs to drive administration spend down to a historical low and enhance customer experience for policyholders, providers and members.

Digital TPAs deliver breakthrough innovation in customer experience and significant reduction in administrative spend



Core vs. Non-Core Functions— Opportunity Cost Applied to Insurance Operations

Howard Ehrlich

Engagement Director, IBAS, Capgemini's Business Services

With shrinking margins, the days of spending on big systems that don't lead to top- or bottom-line growth are long gone—life insurance companies are more concerned about increasing revenues, reducing cost and expanding return on equity (ROE).

Any basic economic course includes the concept of opportunity cost. Roughly stated, an opportunity cost is the benefit a person or business forgoes by taking a different course of action. When faced with multiple choices, businesses typically choose the option that provides the greatest return on investment (ROI).

Fishing for return

Just to give you an example, on any given day, a fisherman might fish for either striped bass or bluefish. The fisherman will choose the fish that provides the greatest expected return in the market, not necessarily the one that produces the largest catch. Of course, the average insurance company is different to our fisherman, simply because they typically have more resources to deploy. But in this low margin, competitive environment, the insurer—similar to the fisherman—is looking to focus its efforts on functions that maximize return, and devoting its time and resources to “core functions” that provide competitive or strategic advantage will help the insurer increase both its top and bottom line.

Core functions for a life insurer vary from company to company and across lines of business but typically include product development, pricing, underwriting and distribution—items that provide potential differentiation from its competitors. As such, the majority of a life insurer's available resources should be devoted to these functions. Administrative functions that insurance companies traditionally perform, including operations, premium collection and claims, still need to be completed, but are typically “non-core,” as they don't usually lead to a competitive or strategic advantage.

Headcount growth dedicated to non-core administrative functions has been

climbing, fueled by legacy systems and processes that have led to manual workarounds requiring increased personnel. As the number of people dedicated to non-core, operational processes grow, the resources available for core functions have become more limited.

Therefore, in order to align resources to functions that provide competitive or strategic advantage, an insurer has two options:

- **Install a new administrative platform** – although investing in non-core functions seems to violate the core process concept, the efficiency gains and error reductions created by a platform that contains significant process automation and artificial intelligence should outweigh the costs of system implementation, leading to a significant return on investment. Post implementation, the time and resources dedicated to these non-core functions will decrease, allowing the insurer to concentrate on its market differentiation activities.
- **Outsource non-core activities** – a third-party administrator (TPA) enables insurers to outsource some or all of their non-core functions. Done correctly, third-party administration is virtually transparent to the insurer's policyholders. The decision to use a TPA can deliver cost savings while allowing an insurer to focus on their core functions.

The case for outsourcing non-core tasks

A product line CEO, when approving a move to cloud-based storage, once reminded me that he was “in the insurance business, not the data storage business,”

and, indeed, technology departments of insurance companies have been outsourcing certain, non-core functions for several years.

Although the term “opportunity cost” may never have been uttered, IT leaders have determined that outsourcing is both cost and resource efficient—Software-as-a-Service (SaaS), Platform-as-a-Service (PaaS) and cloud-based storage all shift non-core functions from the insurance company to specialist firms. This shift towards outsourcing of certain technology-based functions has led to insurer's housing smaller IT departments more focused on solutions that provide strategic advantages.

However, with declining margins, insurance companies should now apply this same discipline to other non-core functions—determining its core and non-core functions based on the lines of business it writes and its value proposition to the market. Insurers need to increase operating efficiencies while maintaining focus on core functions that heighten their marketplace advantages. And by finding more efficient ways to execute non-core tasks, an insurance company can focus its resources on core functions leading to higher sales, increased margins, greater returns and, of course, a lot more of the right kind of fish.

By finding more efficient ways to execute non-core tasks, an insurance company can focus its resources on core functions that leads to higher sales, increased margins and greater returns.



Contract Lifecycle Management: Blockchain and Smart Contracts— Are You Missing Out?

Craig Conte

*Head of Contract Compliance & Optimization,
Capgemini's Business Services*

Blockchain and smart contracts are the present and the future when it comes to big ideas in contract lifecycle management. They save time, create a Posner-inspired world of beautiful economic efficiencies, and reduce legal spend and internal cycle time, while ensuring absolute transparency and control.

Blockchain and smart contracts will also solve climate change, lower your cholesterol and make the respective fans of Yankees and Red Sox friends again (or Manchester United and Manchester City, for our British readers). So are you missing out? Of course you are, and didn't you know that everybody's talking about it on their morning coffee break?

Blockchain demystified

Ok—so maybe not all of it is true, but some of it is—especially the parts about the future and creating efficiencies. And just so that we're all on the same page, let me give you an over-simplified, but quick, overview of what blockchain and smart contracting are in today's lingo. Without going into Bitcoin and cryptocurrency, blockchain is the decentralized sharing of simple data or information in a secure manner without having a central authority or intermediary to perform the information sharing function.

Imagine sitting on a train and everyone telling the person next to them what they had for breakfast. No one person (or link) knows what everyone had for breakfast, but collectively the knowledge of the whole train carriage knows everything about the various breakfasts that were eaten on that particular morning. Put into more practical uses, banks and financial institutions use this all the time to make a shared ledger of time-stamped, encoded transactions (or blocks) that are shared across a network of institutions.

Smart contracts explained

If you take these blocks and add some coding to them in simple logic such as "if X happens, then do Y," you arrive at the basics of the "smart contract." Again, put in more practical terms, organizations will code a transaction such as "if the price of gold hits X per ounce, then sell the gold." This then hits the next step in the chain which takes that information and performs another action, such as "if the gold is delivered then invoice the client." And so it goes on. Each of these steps is a small transaction that could have been a contract to buy or sell, invoice or receive goods. And each transaction happens without having to pay a lawyer to draft the contract.

What everyone is getting excited about is that if a smart contract works (and they do), and entities can effectively perform transactions in real time without extra cycles or reviews, and if these transactions are just logic based, couldn't we just push the limits of the "coding" to get to more sophisticated contracting? Instead of just simple logic of "if X then Y," couldn't we code in more exciting things such as "if vendor offers price X, then we offer price Y"? Then there would be coding back and forth until the contract is resolved without negotiation time, people leaving the room to huddle and discuss, hiring advisors or even lawyers and consultants?

This works today on simple pricing or simple binary issues, but couldn't this also work on even more complicated issues such as "if vendor offers this level of indemnity, then respond with fallback clause X"? With legal process outsourcers and other groups creating rulebooks for

markups and redlines for years, couldn't you just take these rulebooks and make an automated blockchain of smart contracting?

Are you ready for automated smart contracting?

Putting that last sentence of unadulterated buzzword hashtag bait aside for just one minute, we're not there yet. But we could be there before we know it—although a fully automated version of contracting complex matters at this level would only work if everyone is dancing to the same music. We still need lawyers, commercial and procurement professionals—for now. But technology moves fast and people like saving money.

This is why I like to say that people aren't missing out on blockchain or smart contracting—yet.

We still need lawyers, commercial and procurement professionals—for now. But technology moves fast and people like saving money.



Building Predictive Intelligence in T&E

Geetha Jayaraman

Senior Manager, GRC Practice, Capgemini's Business Services

Kyra came up to me this morning with a worried look. “What’s up?” I asked. “My manager is asking me to grow the account revenue,” she said in a bewildered voice. “But the client wants me to reduce the headcount, as he is not getting enough value from the work we do.”

When you’re in a pickle...

Kyra went on to explain that we were processing travel expense claims for a large global company. Although the company’s policy was embedded as business rules in the travel application, and most of the claims were processed as “auto approved,” the company’s policy required a post audit to be performed to detect anomalous claims.

The client had also implemented an audit tool in which exception rules were defined, with travel reports that meet this exception criteria extracted and reviewed manually. Travel policy variations were followed up with employees to obtain a better understanding – where an employee claim was determined to be incorrect, recovery measures were initiated.

The client was now expecting improved outcomes from the audit team in terms of identifying more instances of incorrect claims.

... focus on the process and data

This is where the governance, risk and compliance (GRC) team stepped in, gaining a thorough understanding of the business operations, the divisions, the nature and type of business associated with each business division, how the corporate travel policy was to be applied, what typical exceptions arise and how they were handled.

While the situation Kyra found herself in is pretty typical, the best approach to

address these challenges involves two dimensions—process and data:

- **The audit process** – review and refine the existing audit process to eliminate inefficiencies, and bring in greater transparency into the analysis and reporting of travel reports. With time, these improvements deliver visibility to the baseline performance of the travel audit process.
- **Predictive data modelling** – the current approach of reviewing exception reports generated an abundance of false positives, wasting both time and effort. The most optimal way to solve Kyra’s problem was to build a predictive intelligence model to identify incorrect travel claims:
 - Clean, scrub and analyze the data.
 - Visualize and use descriptive analysis of the data to get insights into building predictive models.
 - Evaluate several models to determine the most suitable model for your context.
 - Perform feature engineering to extract more value from the existing data elements.
 - Choose a model that gives the most optimum results.
 - Run the model against the data.

Once performed, these steps will give you a solid sample on which manual audit procedures can be performed. While the sample size will be much smaller, there is a greater probability of finding erroneous claims, thereby increasing the efficiency of the audit process. Remember to recalibrate your model at regular intervals to align the predictive model with the business reality.

As a next step, T&E analytics could be used to drive corporate travel policy. Analysis of patterns of travel and lodging options could reveal trends in usage, which could be leveraged to drive volume discounts with carriers and hospitality providers, and recommendations on the use of technology to minimize travel could be identified. These kinds of measures have great potential to deliver significant cost savings for corporations.

Problem solved!

The new prediction model has been in operation for just over a month, increasing the audit team’s effectiveness significantly. The audit team can now identify more instances of incorrect travel claims, which are expected to feedback into the travel policy.

And as for Kyra? She was relieved to have the situation under control ... and her client was delighted!

GRC leverages enhanced analytics to unlock value from your travel and expenses.



Audit and Compliance Productivity Driven by Artificial Intelligence

Ashiq Nagda

Global Head, GRC Practice, Capgemini's Business Services

One of my key clients recently called me up in a distraught state. Throughout the whole conversation—between the sobs, the tears and the beating of chests—the only phrases that really stood out were “audit,” “compliance” and “Sarbanes-Oxley regulation” I decided to investigate further.

Once he had calmed down a little, my client, John—the GRC lead for a major multinational corporation—confirmed that his teams were facing a massive productivity challenge complying with audit requirements for the Sarbanes-Oxley regulation. They were spending a disproportionate amount of their productive time providing information and data from their systems to demonstrate compliance with regulatory requirements. And more importantly, the audit exercise was of a detective nature, highlighting what had gone wrong. His ask to me was that our GRC service should simplify things, and be more proactive.

John asked whether I could make the entire audit process more convenient, less manually intensive and less passive—with a stronger promise of timely decision-making to mitigate risks related to compliance failures.

I like challenges ... and the challenge was certainly on!

Artificial intelligence-powered GRC

I came up with the idea of automating John’s governance, risk and compliance (GRC) function using artificial intelligence (AI) to reduce the lengthy audit process. John agreed and together we embarked on a regulatory management journey to resolve his organization’s productivity and compliance challenges.

By leveraging speech and natural language processing (NLP), we were able to reduce the audit cycles, creating shorter lead times for better decision-making and measured actions for detected compliance problems.

John’s teams now had AI sitting on top of all the applicable regulations, and his teams spent more of their time proactively complying with rulings based on simulations and auto-discovery related controls where something was starting to go wrong, rather than having to deal with the inconvenience of providing a load of audit evidence to auditors. Moreover, control failures were detected in near real time, allowing for quicker responses and corrective actions.

Huge complex sets of data could be processed and impact assessed by intelligent machines after automatically collecting them from various data streams and social media channels. John and his teams were amazed to see how using semantic intelligence, our machines powered by AI could automatically recommend enhancements and remediation on key controls, which meant that his teams were able to focus more on other value adding tasks.

Using NLP for auditing also simplified the collaboration between John’s teams and my machines, which picked up sets of controls that had not only failed but in which something was starting to go wrong and could result in fines on account of non-compliance.

What to look for in a GRC solution

With regulatory compliance being a boardroom agenda, it is paramount that your Audit and Compliance function is managed efficiently and effectively, and supported by focused and targeted technology solutions.

Any third-party GRC solution should carry out end-to-end, continuous transaction auditing across your organization—identifying risk and implementing controls to improve the quality of your compliance and control environment, and maintaining your brand reputation. Your outsourced GRC solution needs to deliver timely escalation of any potential control gaps, helping you to mitigate the control gap and avoid potential compliance violations.

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Community



**Capgemini
Turns 50!**

The history of Capgemini began on October 1, 1967, with five people surrounding its late founder Serge Kampf in a two-room apartment in Grenoble, France. What today would be known as a “start-up,” has developed, 50 years later, into a multinational Group with almost 200,000 team members working in over 40 countries.

“We celebrate this 50th anniversary year with our passion for conquest and entrepreneurship. We are proud of our success, which we owe not only to those who have placed their trust in us – our clients, employees, shareholders and partners—but also our founder, an exceptional creator and industry champion, the likes of whom are hard to find,” comments Paul Hermelin, Chairman and CEO, Capgemini Group. *“At the heart of Capgemini is the vision of Serge Kampf: that technology is nothing without the people behind it. To write the next chapter of our story, the Group will continue to transform, innovate and take risks with that same desire and determination shown by all those who have made Capgemini what it is today.”*

Living the future since 1967

Forming the motto of the anniversary program, Capgemini has been “Living the future since 1967”: right from the beginning, the Group has helped its clients face disruptive technological and business changes head-on. Capgemini has implemented a unique business model: founded in a provincial French city when the competition was based in the capital, Paris, and by a salesman when other IT services companies were founded by engineers or technicians. In the 1970s, Serge Kampf was the first to combine technical and organizational consulting with customer proximity, a visionary offer of services, in view of the future role that IT would play in the business world. Today, the Group has over 6,000 clients across all sectors.

Capgemini owes its forward-thinking ethos primarily to the extraordinary

personality of its founder and to several of his essential personality traits that have formed the cornerstones of the Group’s culture: honesty, boldness, trust, freedom, team spirit, modesty and fun. Capgemini is recognized worldwide for its exemplary ethical framework: 2017 saw it named one of the World’s Most Ethical Companies for the fifth year running.

The breadth and scope of its services mean that the Group is on the frontline of new technologies that are evolving at a pace and changing everyone’s lives. The Capgemini Group is now an established global leader in Digital and Cloud services which currently represent 35% of revenues.¹ Building on its extensive technology heritage combined with business consulting and deep industry-specific expertise, Capgemini is partnering with the world’s leading brands to define and deliver digital ambition, new business models, and agile operations, to keep its clients at the forefront of their marketplace.

Global innovation and education initiatives mark a memorable anniversary year

Capgemini kicked off its 50th anniversary year with the launch of InnovatorsRace50, a global contest to give five early-stage start-ups the opportunity to jump-start their business with equity free funding and the opportunity to become a Capgemini partner. Winners from the UK, France, Canada and Sweden beat off stiff competition from nearly 1,000 entrants across 37 countries, after pitching their offerings live on stage in

front of a large public audience and an accomplished jury. The final took place in June at the VivaTech conference, the tech show for game-changer start-ups in Paris. The winners were also the first cohort to each receive a “Serge Kampf Entrepreneurship and Innovation Award”, an annual scheme launched this year by Capgemini to recognize entrepreneurs who can now, but also throughout the years, demonstrate passion, drive and excellence in innovation.

Also in June this year, Capgemini launched MoveFifty, a global program that embodies the sense of progress, fun and team spirit, inherent within the Group today. MoveFifty was set up to mobilize all employees to raise up to €100,000 by clocking up kilometers through movement and sharing their achievements on social media under the 50th anniversary hashtag: #Capgemini50. MoveFifty will benefit three education-focused charitable projects: Ciudad Quetzal, Enlight and Cap Sur Le Code.

For more information on Capgemini’s 50-year adventure visit: www.capgemini50.com.

From 5 people to almost 200,000—we are celebrating 50 years of passion, entrepreneurship, and success.

¹ Capgemini’s H1 2017 Results



Capgemini Guatemala— Building the Future, One School at a Time!

Gustavo Tasner

*Head of Americas Delivery Network,
Capgemini's Business Services*

With over 40% of children in Guatemala not completing elementary school, Capgemini Guatemala has been working to build schools in the town of Bosques del Quetzal, equipping them with adequate facilities to ensure a brighter future for their children. Gustavo Tasner (Head of Americas Delivery Network) shares his experience as a volunteer on the “Building a better future for children” project, and how Capgemini’s recent “MoveFifty” challenge boosted the cause.

Hello Gustavo, Could start by telling us about the “Building a better future for children” project.

Gustavo Tasner | This project aims to improve primary education by building elementary schools for disadvantaged children in Bosques del Quetzal in the suburbs of Guatemala City. Around 500 of our Capgemini Guatemala colleagues have supported the project—not only contributing economically to fund this project, but also physically, by volunteering to help construct the school. The latest saw active participation of around 200 volunteers, and our efforts have so far positively impacted the lives of over 332 children—and we hope to increase that.

What has been the impact of this initiative?

The impact has been huge and involves three different dimensions – social, employee engagement and cultural change. The social impact is evident—changing the environment where children go to school and giving them the possibility of having a better education.

We’ve already built two schools and we will continue with a third school in the near future thanks to the recognition we received from the Capgemini Group. This has translated into economic support that will help accelerate our plan to give

this program the continuity needed to maximize social impact.

Could you talk briefly about the challenges that were involved?

The main challenge we face in the past was that our Corporate Responsibility & Sustainability (CR&S) initiatives in Guatemala were fragmented. Various initiatives were being supported by different engagements and we needed to focus on one common project, and impact the society we are living and working in.

We’re in an industry that is human capital intensive, where education is the basis of everything. So we chose education and redesigned our whole CR&S initiative around this.

These children live in an extremely poor environment with limited infrastructure. So by building schools with adequate facilities, we are helping to provide an education for these children, helping them to have more opportunities for a brighter future and a better environment to grow up in.

Our second challenge was execution—how do we get the project done? For this we partnered with United Way to support us with all the logistics involved.

How does being a volunteer benefit the Guatemala team and the organization as a whole?

Volunteering is the ultimate team-building activity! People are more than willing to contribute, and the result is more engagement with the company, with teammates and with the leadership—and these all add up to the reasons why our people stay with Capgemini. Working together towards a common good and common goal provides a sense of belonging and motivates people. While we obviously don't do it to improve our employee engagement, it's clear that it's a very positive "side effect."

It's fantastic to be part of building a school, sharing the experience with the children and community. And it's great to be able to do this with the same colleagues that deliver fantastic results in our Business Services organization in Guatemala—1,400 people serving 22 countries in the Americas across a broad range of services including finance and accounting, supply chain, procurement and HR outsourcing, as well as business transformation and robotic implementations.

What's next for the project?

Capgemini is globally committed to improving education, and at Capgemini Guatemala we not only adhere to this commitment but also live by it every day. So, as I've mentioned, we're soon starting work on a third school, and we hope to continue and develop the project beyond this.

Finally, it's great to see that our Guatemala CR&S project is viewed by many other people in the global Capgemini "family" as something to adopt, support and even replicate. Capgemini's global "MoveFifty" initiative, which raised money for three inspiring charities promoting education for underprivileged children in France, Guatemala and India, by encouraging Capgemini employees to get active, was a fantastic opportunity to provide better awareness of what we do and get much more (and global!) support to our cause. I believe this will also encourage people to replicate the initiative in other locations that have similar needs.













About Capgemini

A global leader in consulting, technology services and digital transformation, Capgemini is at the forefront of innovation to address the entire breadth of clients' opportunities in the evolving world of cloud, digital and platforms. Building on its strong 50-year heritage and deep industry-specific expertise, Capgemini enables organizations to realize their business ambitions through an array of services from strategy to operations. Capgemini is driven by the conviction that the business value of technology comes from and through people. It is a multicultural company of 200,000 team members in over 40 countries. The Group reported 2016 global revenues of EUR 12.5 billion.

Learn more about us at

www.capgemini.com/business-services

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