Map IA

Tried and tested routes for your Intelligent Automation journey

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THE IA COLLECTIVE

PROFOUNDLY INTELLIGENT AUTOMATION

IAC BOOK OF IA INSPIRATION: THE ART OF THE POSSIBLE

The latest thought leadership and best practice from the Intelligent Automation Collective

The potential of smart automation has soared as the result of advances in core AI technologies, and the availability of vast, affordable computing power on demand via the cloud. It is transforming the way all kinds of organisations capture information, manage processes and deliver services.

And yet...

Up to now, applications – both of earlier robotic process automation (RPA) tools, and more recently of intelligent automation (IA) solutions – have been largely tactical in nature. Without necessarily understanding the fuller scope for doing things differently, companies have invested in individual solutions and applied them to a specific task. This has brought them some success, but without the vision and ambition to rethink business and operational models, or how to apply smarter capabilities - and to plan and do this strategically – these companies have compromised the overall impact.

The next wave of intelligent automation will go wider and deeper. Through an ecosystem of highly configurable tools, applied in a way that can be adapted easily over time, the smarter organisations will harness the latest forms of AI - from machine learning to natural language processing - to unleash untapped human potential and make work more rewarding for their talented teams.

Rather than removing operational cost at the risk of introducing new barriers for users and customers, this is about transforming and enhancing their experiences and improving outcomes.

But how?

To mark the first anniversary of the Intelligent Automation Collective (IAC)'s formation, we've put together this handy guide, offering up the latest inspiration from those working at the IA coalface. We asked each of the IAC's member partners for their take on where the industry is going, the hottest new opportunities that are emerging, the common misconceptions in the market about IA, and what needs to happen next to harness IA's fuller potential. And they didn't hold back.

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CHAPTER 1 / *David Poole, Executive Chairman*

COGNITION

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INTELLIGENT AUTOMATION IN AN AGILE WORLD

In the 2020s, agility is everything. Disruption is continuous and if organisations can't adapt quickly - in what they do or how they do it - they risk collapse, or at least becoming irrelevant.

Consider how hard traditional banks have struggled to keep pace in a digital-first world. The stability and great customer service they once relied on are no longer reliable differentiators. The rigidity of legacy IT systems, and the tactical application of point solutions like chatbots to field queries more cost-efficiently, have curbed their ability to truly innovate and add value for customers.

The problem with process automation up to now – especially in consumer-facing sectors such as financial services and retail - is that it's been too rudimental. Any cost savings have been wiped out by lost revenue - as customers have voted with their feet and switched to another brand. Instead of adding convenience, automation tools have got in the way of a great experience and contact centres are the clearest example of this.

Too often these facilities remove rather than add value. They aren't even empowering humans to do better work. Rather, people still need to hover in the background to make sure the automation works, or to pick up the slack once a customer becomes irate. Which is most of the time.

The untapped opportunity is for intelligent automation (IA) to bridge the gap – and connect more of the knowledge and insights required for a great experience – so that customers can accomplish everything they need to, quickly and efficiently, day or night. That might require the smart application of two or more complementary AI capabilities. But, in a continuously adapting environment, a modular and highly configurable toolkit offers the futureproof approach.

That's why we created the Intelligent Automation Collective (IAC). By bringing together leading IA technology experts across the smart process automation ecosystem, we're able to deliver highly agile solutions that can transform an entire business or manufacturing/ assembly process, end to end.

IA'S TRANSFORMATIVE POTENTIAL

3 experiences customers don't want today

1. To keep repeating themselves – whether to a call centre bot or agent, or by entering their delivery preferences and payment details in a web form each time they order something.
2. To have to chase for updates – about how a mortgage application or insurance claim is progressing, or whether a payment is imminent.
3. To have to wait for an answer or decision about something that matters – from medical results, to the approval of a loan.

3 experiences employees could well do without

1. The stress of impossible and mounting workloads.
2. The all-consuming nature of repetitive manual work.
3. The lack of job satisfaction when there is no time to do the meaningful work, or complete tasks well with positive and visible outcomes.

What's the point of intelligent automation?

Smart automation tools can make a huge difference in supporting humans to achieve more, and more swiftly. They can be taught to read human medical images at speed and still detect even the tiniest anomaly compared to normal or previous scan results. They can transform the compilation of clinical trial data, or adverse event reporting, in life sciences. The ability to efficiently and accurately sift, recognise, match and process content in a range of forms – visual, auditory, data feeds from connected sensors, and so on – offers substantial value when volumes of input are substantial. It allows humans to pick up the baton and achieve more with the critical next steps.

The real impact of intelligent automation is in the way it empowers teams and organisations to improve processes and outcomes. A big part of this is about enabling users to keep refining how they work. This means moving away from complex 'black box' tools that only IT departments can understand and adapt, and embracing 'low-' or 'no-code' tools which users themselves can configure and keep tweaking to help them deliver more of the outcomes they need, as part of the flow of everyday work - driving continuous improvement.

Reality check: ChatGPT & IA's limitations

Artificial intelligence is clever, but none of the clever technology that's around today will directly give rise to a new business model or create a new service. Despite all the hype around next-generation chatbots like ChatGPT, for instance, these are ultimately still just efficiency tools which do some of the heavy lifting. If you want a quick summary of what's being said about a topic, why not ask an AI tool to peruse all the available information and give you the headline points? These tools are impressive because they can write intelligible answers based on a huge volume of data they've been exposed to.

But ChatGPT and tools like it only 'know' what they've been told, and have no way of discerning whether that information is correct or not. Although AI technology can be taught to look out for clues (e.g. detect when someone is engaged vs angry), it doesn't have the social and emotional intelligence to work out what's good for a human or how to fulfil and delight them.

So future process or service innovation will depend on humans and IA technology working hand in hand to deliver something greater.

Cognition

Consulting firm Cognition specialises in empowering greater human creativity to add new tangible value for employees and/or customers. We do this through strategic yet targeted intelligent automation, and a focus on cultural change to unleash maximum human potential.

We help all kinds of organisations develop the bigger picture and apply the right combination of IA tools to deliver the scale and depth of transformation they need, in a futureproof way, working in partnership with our clients to focus their investments most effectively.

Under our former name, Emergence Partners, we founded the Intelligent Automation Collective (IAC) in April 2022 in recognition that successful deployments of this rapidly-advancing technology rely on the right blend of tools and capabilities being applied optimally in each client context - together delivering something much greater than the sum of the parts. The IAC allows each technology specialist to play to its strengths while being part of a rich ecosystem of IA tools and microservices. Cognition joins the dots, advises on the right combination of building blocks for each client, and provides the cultural change management to ensure that humans, machines and IA capabilities work optimally together.



CTWO



CHAPTER 2 / *Erik Lien, CEO*

OPTIMISING AUTOMATED WORKFLOW TO MAXIMISE OUTCOMES



If there's one area where the forerunner of intelligent automation (IA) has excelled, it is in using robots, machines and software to take over repetitive, predictable tasks – known as robotic process automation (RPA).

Yet as opportunities have grown to embrace smarter and more cognitive abilities as part of automated workflow, the ability to optimise processes has become critical – so that an organisation can deliver real transformation.

If you're a mortgage lender, say, the value-added opportunity is not only to drive costs out of the process – but to be able to process applications and approve lending faster than the competition. That's what the customer cares about, after all – getting a better service. (If the bank is able to do this while simultaneously cutting costs and passing on savings, so much the better.)

This is what we mean by intelligent orchestration. It is about using data-based analytics and insights to control, visualise and streamline workflow - so that automation delivers faster and more confident decision-making and an unmatched speed of outcome. That could involve the coordination of robots in a factory, or the way internal business processes are managed to deliver consumer outcomes.

For one mortgage lender in the US, the ambition was to get an 8–hour target for a mortgage application down to just five minutes. The business calculation being that this would bring in 5–10 times more customers. Using intelligent process orchestration, it has achieved just that – and reduced its costs by a third.

Ultimately, this is about command and control of which automated activities are taking place and when, using process insights to distil where delays or errors occur, what is causing them, and how workflow might be adjusted and streamlined. That could be to do with how work is managed and handed over, or the information/knowledge that systems have access to at each stage of the process.



IA's transformative potential: it's not what you do, but how

Typically, today, organisations are not very good at using AI – and that's why process automation initiatives can fail to deliver the hoped-for business value. Simply applying a tool to a given task will not result in transformation. Rather, companies need to understand where automated processes are stalling, or taking too long, so that they can do something to re-engineer that workflow and insert more of the right knowledge or insights at the optimal time. And that needs smarter command and control – in other words, intelligent process orchestration, all coordinated and viewable in one place – whatever the blend of tools in play.

Reality check: where process automation potential begins & ends

Process automation is a small but important piece of the digital transformation puzzle. Solving business challenges with automation enables teams to be more productive, deliver greater value, and unleash more of their potential. Optimise automated workflow orchestration, and decision-makers can focus more of their energy on sharpening the knowledge and contribution of their teams, and the experience of their customers. It shifts the focus from saving money to delivering new value from automation.

Should employees fear for their jobs?

Where earlier-generation RPA might have posed a threat for manual jobs, intelligent automation solutions do everything to boost the role and value of employees. By highlighting more of the opportunities, and putting the right tools and information in people's hands at the right time, IA tools and solutions make more of people's skills, drive up job satisfaction, and deliver better outcomes for customers and the business.

C TWO

C TWO, formerly known as RPA Supervisor, provides a technology-agnostic automation management platform now available on demand via the cloud, which intelligently orchestrates any kind of automated work for maximum efficiency and value creation. This 'connect and consume' proposition, C TWO Squared, addresses the limitations and often high costs of a one-size-fits-all approach to IA licensing, and offers companies the chance to consume IA services on tap.

The fully-managed service platform extends far beyond robotic process automation (RPA) in its scope, spanning document understanding, digital assistant and NLP capabilities, reducing the need to invest in additional resources to manage the different forms of automation. Whether human teams are working alongside robots day to day, or are a benefactor of their outputs, C TWO provides a singular lens through which they can command and control their digital workforce.

CHAPTER 3 / *Akeel Attar, CEO and Alex Bentley, CRO*



XPERTRULE

OVERCOMING TODAY'S PRESSURES: THE TRANSFORMATIVE POWER OF DECISION INTELLIGENCE

One of the most significant developments in technology-enabled automation lately has been the shift in emphasis from routine automation technologies which target the low-hanging fruit (mundane, repetitive tasks), toward the intelligent automation of cognitive outcome-centric tasks using decision intelligence.

This paves the way for a whole range of advanced use cases, that include troubleshooting and resolving complex issues, automated or agent augmented cross selling, upselling and customer retentions, as well as supply chain optimisation and predictive maintenance.

Companies are realising that, to drive real ROI from advanced technology, they need to move higher up the food chain and decision intelligence can provide the catalyst.

This is about more strategic transformation of the way things are done right across the organisation, harnessing the right mix of intelligent automation tools for the job – a situation that isn't fixed. Given that IA technology is advancing all the time, the ideal toolkit tomorrow might look different to the best combination today.

The upshot is that companies need the right architecture in place to bring all of their current and future capabilities together.

Reality check: making decisions in the dark leads to poor business outcomes

Most businesses today are grappling with an array of competing pressures. These are typically related to people (making more effective use of their time and knowledge); data (unlocking this so it is more holistic, meaningful and actionable); technology (combining tools more effectively), and regulatory demands (requiring greater process transparency). All of this has a bearing on customer service and a company's reputation.

Coordinated decision intelligence, enabled via a unifying and flexible platform, targets all of these issues. It allows companies to harness the optimum combination of intelligent automation tools to address the whole spectrum of modern-day challenges. This in turn enables more consistent experiences for staff and customers, more efficient and compliant organisations, and greater profitability. (McKinsey has found that organisations with reliable data-driven decision-making are 23× more likely to acquire customers; 6× more likely to retain customers; and 19× more likely to be profitable[1].)

The IA opportunity: what's next?

Decision intelligence is the new way forward, allowing businesses to harness the power of their two most valuable assets – the expertise of their people, and the insights in their data so they can make the right decision every time, and in every situation.

Taking a holistic approach to intelligent automation is important, if companies are to deliver consistent improvements to what they do.

The decision intelligence revolution will be significant. Organisations haven't seen any notable leaps in productivity since the Industrial Revolution, despite huge advances in technology capability. To allow businesses to catch up, there needs to be greater flexibility – via a decision intelligence infrastructure that teams can easily configure to their own preferences to maximise the overall business impact.

When IA misses: the need for decision intelligence

Intelligent automation capabilities are very readily accessible now, along with a raft of publicity and hype around what's possible. But it's easy to confuse growing awareness with actual knowledge and understanding of IA. As a result, organisations can quickly get themselves into a mess.

Unless businesses build their IA landscape in the right way – giving them the right blend of capabilities for today while staying open to future developments - they won't see the fuller impact. Worse, they could incur a new generation of legacy or 'debt', requiring endless and costly technology workarounds.

A configurable decision intelligence platform addresses all of these issues.

[1] McKinsey, 2022

What is Decision Intelligence?

Gartner defines decision intelligence as a practical discipline for understanding and engineering how decisions are made and how they impact outcomes. It requires a combination of human expertise automation, predictive analytics and decision optimisation technologies.

What is a decision intelligence platform?

A decision intelligence platform is a no code/low code software platform that allows the capture of human expertise, the generation of predictive analytics, and the deployment of both to operationalise and optimise enterprise-wide decision-making.

An increasing number of AI analytics technologies are rebranding as Decision Intelligence platforms. But there is a catch. In the enterprise, it's critical that decisions taken are fully explainable and auditable. Yet many technology solutions use "black-box" neural networks as the mechanism for decision-making. To be suitable for enterprise deployments, a decision intelligence platform must successfully bring together a wide range of problem-solving techniques, that can predictably and consistently apply both human reasoning and explainable AI, to optimise decision making.

An effective decision intelligence platform can both augment human decision-making and fully automate decisions, depending on the scenario.

A DI platform can be used as the central brain of the IA ecosystem to:

- **Drive deeper more complex conversations with users thereby upskilling / multi-skilling the workforce and increasing the reach of customer self-service**
- **Drive more intelligent back-office workflows incorporating decision flows**
- **Provide decision services to enterprise applications and to work orchestration platforms**

How to succeed with IA: 3 tips

1. Find a quick win. Solve a specific problem (e.g. a specific customer service experience) to demonstrate the business case, but make sure this isn't via a standalone AI solution that can't be mapped and connected into the bigger picture.
2. Foster a balanced relationship between the business and IT so that both parties buy in to the potential for decision intelligence. As well as augmenting or automating human decision-making, it's important to understand how decisions are made. Not only does this ensure effective governance, it also provides a basis for continuously improving the quality of business outcomes. The objective is to harness the full power of individual AI capabilities together with the knowledge and expertise of valued employees.
3. Choose a low or no-code decision intelligence platform that is easy to integrate and connect with incumbent technologies. This will make it possible coordinate data and knowledge consistently and reliably, while retaining the flexibility to add in the right tools for the job – both now and in the future.





What role does the IAC play in driving intelligent automation success?

The Intelligent Automation Collective represents a unique set of expertise – a set of people with deep knowledge from across the sector, each coming from a slightly different perspective. We've all made a purposeful investment in how the complementary technologies come together to propel IA's impact. Together we offer a rich blend of deep tech skill and experience of real-world applications of our own technologies and their fit into a wider ecosystem, as delivered by Cognition.

It would be very hard for anyone else to match IAC's proposition. Most companies are caught up in trying to solve their own part of the problem, without that visibility of the wider potential and the broader solution.

XpertRule Software

XpertRule helps the world make better decisions. Our decision intelligence platform, viabl.ai, is uniquely capable of diagnosing how decisions are made, so it can design, execute and continuously improve decision-making within an organisation. Uniquely, viable.ai blends a number of intelligent decision-supporting technologies – including machine learning, conversational AI, optimisation, workflow and no-code automation tools - to give companies maximum flexibility in transforming decision-based processes and outcomes. For instance, our conversational API can power any digital assistant or chatbot channel with intelligent decision-supporting knowledge/best practice, distilled from either people or data.

We harness accessible and easy-to-use AI to help organisations automate complex, business-critical and high-value processes that were previously outside the scope of intelligent automation, releasing more of people's full potential.

Without our unified decision intelligence platform, businesses would need to invest in at least three other sets of capabilities – yet still be able to achieve only a subset of what we do. Because we coordinate everything in one place, we also support completely transparent, 'explainable' decision automation that businesses and their customers can trust.

Our viabl.ai platform can be deployed on premise or via the cloud, and connects readily with other enterprise systems ranging from RPA and business process management (BPM) tools, to customer relationship management (CRM), enterprise resource planning (ERP) and business intelligence (BI) systems, as well as any combination of third-party AI tools including image and natural language processing capabilities.

CHAPTER 4 / *Terry Walby, CEO*

OPENDIALOG.AI

CHATGPT & BEYOND: ADVANCED APPLICATIONS OF NATURAL LANGUAGE PROCESSING



Voice assistants and conversational AI/chatbots have attracted a great deal of attention recently.

That's as the world has woken up to the potential for interacting with information, content and services – and even creating those assets – using conversational communication as the interface. Accuracy is improving all the time, along with the ability of natural language processing (NLP), large language models (LLM) and generative AI tools to interpret and respond to the user's intention in a given scenario. This is leading to a step-change in both business productivity and customer service delivery.

Up until now, chatbots (as used by contact centres and helpdesks, most notably), have been the source of much consumer frustration. Early- generation platforms aimed at deflecting queries or transactions from human agents, and freeing up those people's time to handle more complex scenarios or complaints, have typically deflected only 20% of cases.

Advanced NLP capabilities are filling that gap now, and ChatGPT has played a big part in raising awareness about what's possible. With a higher level of intelligence behind voice assistants and conversational AI/chatbots now, and the ability to keep refining and building on existing customer/scenario knowledge, companies can now automatically handle up to 80% of all customer interactions – and with an experience that feels much more human than previously.

What is conversational AI?

AI-powered chatbots and intelligent virtual assistants use human-like language to quickly solve customer problems without human interaction. Whether the goal is to improve customer service or increase sales, conversational AI can enable the automated completion of 4 out of 5 transactions, driving greater customer convenience at lower cost.

The natural language dimension: a once-in-a-generation leap forward

The way people interact with technology and data has barely changed since the 1980s and the birth of the graphical user interface. Although more recent devices have felt more intuitive with buttons, a stylus and then touchscreens, it's the ability to use natural language – and in have typically deflected only 20% of algorithms and machine learning – that's really transforming the way people engage with information, content and services.

More power to people: releasing humans to drive new service differentiation

Once next-generation chatbots can process the vast majority of incoming enquiries and transaction requests, large numbers of customer service staff or sales agents can be released back to the business to create new brand differentiation and service offerings, and boost customer loyalty. This is already possible, and happening, across a wide range of industries today.

A case in point: providing comfortable & convenient support for victims of cyber bullying

The Cyber Helpline is a charity providing support to victims of cybercrime or online hate. A next-generation chatbot platform (ours) guides victims through a process to access a programme of support, without the need to go through a human agent. This is more private for the victim, who may be traumatised and reluctant to speak to someone. It also solves the problem of volunteer recruitment, which can be a challenge.

Separately, the World Health Organization is currently trialling the same platform to deliver cognitive behavioural therapy (CBT) at scale, to fill gaps in mental health services. Crucially, the conversational AI capability it is using goes far beyond addressing common experiences; it harnesses deep intelligence enabling it to handle a vast range of needs.

What role does the IAC play in driving intelligent automation success?

Reaching far beyond robotics, intelligent automation (IA) needs a strategy if it is to create significant value for a business. But the options can be difficult to navigate, and it can be hard to know where to start or what to prioritise. And then there's the whole process of identifying the right tools and vendors and coordinating everything. That's where the Intelligent Automation Collective comes in.

IAC is a dynamic alternative to working with a large systems integrator and single tech vendor. Between all the partners, we offer the full spectrum of best-in-class IA tools and capabilities. We get organisations to where they want to be faster and more directly, de-risking their future.

OpenDialog.ai

OpenDialog.ai is a leader in next-generation, AI-powered chatbots and intelligent virtual assistants. Customers of our conversational AI platform can build AI-powered experiences on top of our platform using best-in-class tools. And because they can do this via simple configuration (no coding), there's no need to involve software developers or data scientists.

We take a context-first approach to dialogue management, leading to a much more personalised engagement with consumers – harnessing the best tools for the job and the latest capabilities as they become available.



ENATE

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CHAPTER 5 / *James Hall, CEO*

BEYOND THE BACK-OFFICE: AUGMENTING HUMAN EXCELLENCE

Part of the challenge when large complex institutions - like banks - want to automate more of their knowledge work is understanding where intelligent automation (IA) will add the most value.

This, in turn, requires deep insights into the way work is handled today – and where the supporting data is. The answer? Intelligent workflow management which transcends legacy and modern digital ways of working, and which can cope with intricate and non-standardised work scenarios.

A brief history of back-office frustration

The challenge of streamlining back-office business operations is as old as time, along with services and workflow tools designed to tighten up the various process steps. From centralised operations delivering greater economies of scale to offshore services delivered from India, large legacy organisations have tried everything to drive new efficiency into the way they run core internal services.

Initial automation efforts looked to transform operations by enabling bigger systems of record, but as 80% of supporting information was still being tracked largely via email or Excel, companies didn't see the process improvements they hoped for. Without intelligent oversight and transformation potential across the entire workflow, any gains were very modest.

But that's all changed - with the introduction of cognitive capabilities, in the form of algorithms to digest, sort and process unstructured content for intelligent document processing (IDP), so that more of the contained data can be used to drive new innovation. That could be in the form of automated customer account handling using intelligent next-generation chatbots, for instance.

Across entire enterprise processes, intelligent operations management looks to optimise every contributing element – from the individual technology components, to the humans and digital workers in between.

And that starts with the ability to track who does what, how well that is working currently, where handovers happen and are most/least effective, and where there is scope to reroute, reprioritise or automate workloads to elicit better results.

What is a digital worker?

Digital workers are virtual employees that enhance and augment human work by combining smart technologies including AI, machine learning, robotic process automation, natural language processing and analytics, to automate business functions across a process lifecycle.

Should human workers worry about their jobs?

Seriously, no. A lot of people who work with systems to help customers are constrained by what those systems can tell them or will let them do. With smarter and more human-centric tools that simplify their working lives and help them succeed in their work, teams will be more fulfilled and more likely to stay in their jobs for longer.

What's next for intelligent workflow?

The more that organisations build intelligence into the way they manage complex workflow, the greater the range of opportunities there are for digital transformation. Especially if they can simply plug in, test and monitor new tools as part of existing end-to-end workflow management. That could be via the targeted application of intelligent document processing (IDP) or of next-generation chatbots.

So what might that look like?

For a home contents insurer in the US, the ability to streamline workflow through targeted IA, all tracked and managed via Enate, has made it possible for consumers to sign up and claim quickly via a video that's assessed by AI for authenticity and the validity of a claim, leading to very fast settlements.

What's so great about the IAC?

There aren't many places businesses can go to access holistic advice about intelligent automation matched to their strategic end goals, as well as an IA toolkit that spans all of the compatible capabilities - from smarter end-to-end workflow management to intelligent document processing and next-generation chatbot technology.

Even the biggest tech companies and consultancies lack that joined-up narrative, enabling comprehensive digital transformation. The IAC brings the whole package.

Enate

Too often, a company's important business processes are managed in a fragmented way, making it hard to see the bigger picture or drive real improvements. Our simple, end-to-end business workflow platform shines a light on work itself, and how it happens, so managers can apply intelligent automation in a targeted way.

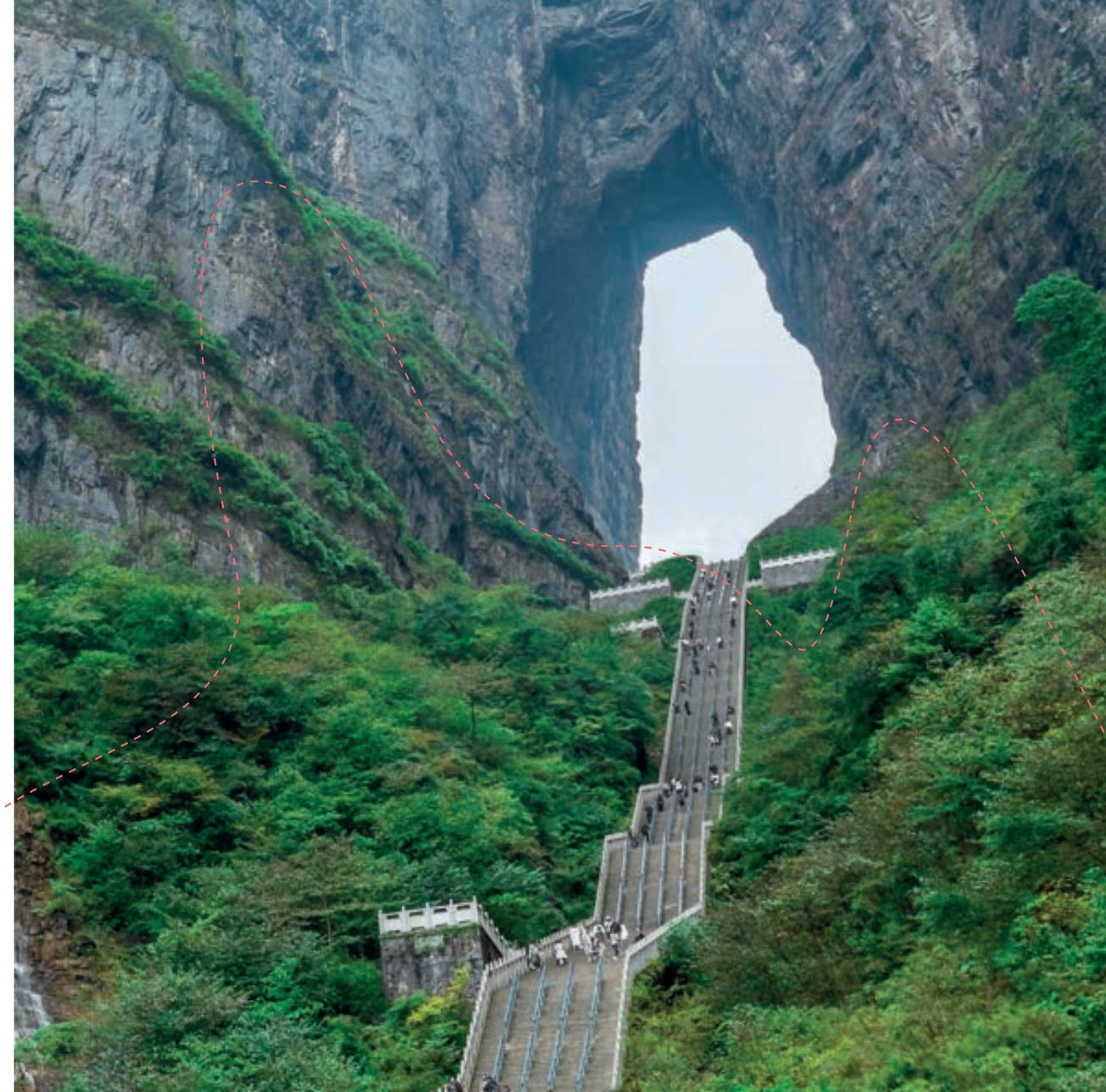
Enate makes it easy for IT and operations managers to view, manage and track business workflows via one simple platform, whether processes involve legacy systems and ways of working or harness the latest intelligent automation (IA) tools.

Companies generally see at least a 20% improvement in efficiency – even before inserting digital workers into processes – when they use our platform.

Enate, which is lightweight and easy to implement (potentially in as little as a week, compared with 12–18 months for mainstream workflow solutions) comes into its own in the context of complex workloads – where mainstream workflow solutions tend to struggle. That could be HR, finance or GBS (global business services) managed in Shared Service operations, or the mid-office of banks and insurance companies. Scenarios where there's a lot of variation. We tackle this by prioritising consistency over standardisation.

Enate automatically recognises and records work and how it's handled – including how it's routed, and the numbers of exceptions that need to be managed - and the scope for introducing IA. And once targeted IA tools have been added to the picture, we integrate all of these into our platform so everything remains traceable and manageable all in one place.

Ultimately we help companies become smarter, faster and more agile. Professional services firm TMF has saved around $33 million by using Enate to monitor and improve how it manages legal, finance, payroll and other critical back-office services for 10,000+ clients worldwide.



CHAPTER 6 / *Adam Bujak, CEO*

KYP.AI

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CONVERTING DIGITAL ACTIVITY INTO ACTIONABLE INTELLIGENCE

It's all too easy to make assumptions about what's hampering productivity in an organisation, and where improvements could be introduced.

But often the greatest scope for change lies in the least obvious places, and that's where AI-enabled process mining brings its magic. This is about converting everyday productivity – whether in a factory, a sales operation, or a logistics/delivery company – into important streams of information for a company. And, crucially, in real time – so that changes can be made on the fly to drive different and better outcomes, all drawing on the latest data.

Intelligent automation (IA) is pivotal to this scenario, enabling vast operations (eg centralised shared services) to aggregate a whole range of data and apply algorithms to spot patterns that human managers can't – certainly not in the moment. Those insights can then be fed into other IA tools, to reroute work, for instance. That's as long as all of those capabilities are interlinked.

Productivity 360

Once large-scale operations are being mined and monitored for productivity inhibitors, companies can:

- Accomplish more
- Act more efficiently
- Maximise their use of increasingly scarce talent.

All industries have an opportunity here but advanced, intelligent process mining is especially suited to shared service centres and business process outsourcing set-ups, handling activities such as financial processes, collections, supply chain management and HR.

Once it's more obvious where any barriers to productivity are, these service providers can apply more targeted IA applications – AND measure their impact, through continued process analysis.

For champions of IA within companies, this can be a really powerful tool to help justify and accelerate defined projects.

Pinpointing specific IA potential

Next-generation process mining can help inform specific IA application rollouts, by highlighting where the biggest inefficiencies lie currently. If 600 people are assigned to invoice processing, and three-quarters of finance graduates' time is being spent copying and pasting information from one place to another, that is a massive waste of resource. Process mining can help identify the most common repetitive tasks, and calculate the potential impact of process automation.

Why now?

The current economic environment is a strong catalyst for advanced, AI-enabled process mining. With soaring inflation and growing cost pressures, job reductions will continue – creating enormous pressure for those left to do the work. Add to the picture the continuation of remote working, and it's harder than ever for organisations to maintain and track productivity which can suffer when teams are dispersed.

Boosting human wellbeing

Process mining isn't just about plugging gaps in productivity. It can also be an important lever in ensuring that people take enough breaks and that this is consistent across an organisation. Generating real data about this can also help companies to monitor improvements and demonstrate their credentials as a healthy working environment that cares about its staff.

What's next for process mining and IA?

Since the Industrial Revolution, companies have been augmenting human capabilities with machines to increase productivity and improve outcomes. As automation technologies become smarter, educated knowledge workers can hand over more of their routine/'grunt' work to machines -alleviating stress and making their jobs more rewarding because they can now spend more of their time using their primary skills to add value for the business.

In finance, that could mean spending more time on business forecasting, for instance, rather than on number-crunching. More broadly, it's about how an organisation uses its resources and how it defines its long-term resilience compared to the competition. All based on accurate, current process data, and targeted application of IA tools to streamline the way work is done.

A big driver in all of this is the consumer/customer, whose expectations are rising all the time – around the speed with which they can get answers to their queries, or results from their applications or claims.

KYP.ai

KYP.ai provides unique levels of visibility about business processes on a vast scale, and pinpoints and quantifies any problems inefficiencies with real-time data, allowing targeted action to be taken. We do this by providing a consolidated 360-degree view of process activity via the desktop.

We go beyond traditional process mining, harnessing AI to generate instant insights, prioritised automation recommendations, and resolved business cases to accelerate a company's transformation journey.



Our tools can be used right across even the largest global organisation, providing a uniquely complete and uninterrupted view of the way operations work today from one end of a process to the other – and how they might look with some fine-tuning and smart application of IA.

The data we generate has a thousand different uses cases, and today companies are only just scratching the surface of what's possible. Our tools sit in the background, much like anti-virus software, monitoring and generating data. Even if that data isn't harnessed today, it's there in the background, ready for a company to tap into for targeted improvements.

Stronger together: our role in the IAC

Too often, companies struggle to know where to start with IA initiatives. They know they could benefit hugely from smarter automation, but can't get off the ground with a meaningful business case. KYP.ai (Know Your Process) provides reliable, data-based insights and business case calculations to support targeted IA investment – then tracks and highlights the improvements. Armed with this information, companies can more confidently and speedily roll out specific IA solutions from other IAC members.

CHAPTER 7 / *Mike Hobday, CEO*

ANTWORKS

INTELLIGENT DOCUMENT PROCESSING: HARNESSING THE 85% OF COMMUNICATED CONTENT THAT TRADITIONAL FORM-SCANNING DOESN'T CAPTURE OR EXPLOIT

It's remarkable that, even in the 'digital first' 2020s, an over-reliance on documents is getting in the way of business and service agility.

Today, whatever the industry, almost every process involves some form of documentation - generating trillions of files that humans have to read just to extract the information they contain. Paperwork is inevitable, but it can also delay mortgage and loan applications, and lead to frustratingly slow processing of insurance claims, or supplier payments – all with cost implications as well as a competitive impact.

The ability to scan and store documents and their content was transformed by optical character recognition (OCR) technology, which – as long as the software could recognise the type of document, and the location of key information within a known template - could capture basic account details, client addresses and other fields of importance. These could then be stored in a database and/or used as the basis to automate a basic task (e.g. the first step of invoice processing).

The trouble is, OCR's scope covered only about 10–15% of typical business/customer/supplier communications – leaving 85% for humans to continue processing manually. And that was even before the explosion of free-form content in the form of exchanges via digital messaging/chat platforms, social channels and apps, and by way of emails, images, audio and video files – which are being used increasingly as a means of submitting supporting documents.

Intelligent document processing (IDP) fills this gap, blending the latest OCR technology with natural language processing (NLP), machine learning (ML) and other AI techniques and tools. As a result, IDP can automate most of the remaining 85%+ of content capture, complete with intelligent automated indexing (application of lots of metadata) to allow easy and accurate data retrieval at speed.

It's transforming the way whole industries process document-heavy workloads, from banking and insurance to the health sector. This in turn is allowing those industries to innovate with more responsive and dynamic customer experiences (e.g. rapid mortgage approvals) that are cost-effective to deliver – through the integration of IDP with other intelligent automation (IA) tools.

BUT... IDP's potential is not simply in making existing processes more efficient. The technology also paves the way for new service innovation – by allowing companies to capture, combine and capitalise on additional information and insights that exist in some of the ancillary detail being exchanged.

Doing people out of a job? Relieving them, more like

Using intelligent human beings to extract information from documents or other media and re-input this into a database or software system is a waste of everyone's time and money. It's singularly unfulfilling, and it's a process that can be error-prone as teams become bored, tired and distracted.

Intelligent automation tools – IDP as part of a wider toolkit of solutions – can remove this thankless task and free up talented people to simply run checks while concentrating most of their time where they can add real value for customers and for the business. By spotting and exploiting new service opportunities, for example.

Learning what to look out for

IDP solutions build on top of old OCR frameworks, adding more intelligence including the ability to learn what's important and refine data capture and indexing over time. So if an incoming document or latest exchange differs in format from the most common templates, the software can be taught to expand its parameters as it experiences and adapts to variations.

AI capabilities can be used to augment resources, too – whether in quality control, or to spot and flag or even source missing data. Applying business rules can help to clean up data too, so that it fits with back-office system categories – e.g. where different words are used to describe the same scenario ('earth movement' vs 'earthquake', for instance).

But, here's where it gets interesting... Instead of being restricted to capturing basic information, such as client account, date, item and cost details from an invoice, IDP-based solutions can be taught to look out for and capture other ancillary detail which could be used in future to generate new insights, and to feed into new service offerings.

A case in point: pulling actionable insights from pet insurance claims

A typical pet insurance claim contains a lot more information than billing details which, if captured, could be used in a whole host of innovative ways. Specifics such as the pet's breed, its illness, the treatments given, the breakdown of costs, and the vet's details, could give rise to trend information over time – for instance to identify correlations between treatments and outcomes, to improve pricing, or to refine underwriting guidelines.

Combining IDP with intelligent workflow management and analytics would allow the relevant data to be captured and transformed into actionable insights, which could even become the basis for a new service line.

And now, newer technologies and LLMs (Language Models) like ChatGPT can greatly enhance IDP by providing advanced natural language understanding and generation capabilities. These models excel in comprehending the intricacies of human language, enabling them to interpret and extract valuable information from various types of documents, such as contracts, legal briefs, research papers, and more. LLMs can accurately identify key entities, such as names, dates, and addresses, and recognize complex patterns and relationships within the text. With their ability to generate coherent and contextually relevant responses, LLMs can also assist in automating document summarization, generating concise executive summaries or abstracts or customized and pre-filled emails, and providing intelligent insights and recommendations. By leveraging LLMs in IDP, organizations can streamline their workflows, improve accuracy, and save valuable time and resources, ultimately enhancing overall productivity and decision-making.

Advice from the frontline: how to maximise IA success

Instead of picking the technology first, it's far better to start with the desired outcome (e.g. substantially accelerating mortgage approvals, or facilitating new revenue streams), and then see how the right combination of IA solutions might enable that.

This is likely to involve a rethink of the business and its processes, but that's how it should be. Transformation won't happen if you're simply replacing human processes with automated equivalents. It's far better to design a new process based on minimal or no human touch, and then add in 'super-user' humans where they would add value – e.g. as controllers and checkers. The rest of the existing team can be redeployed to more stimulating and creative roles.

AntWorks

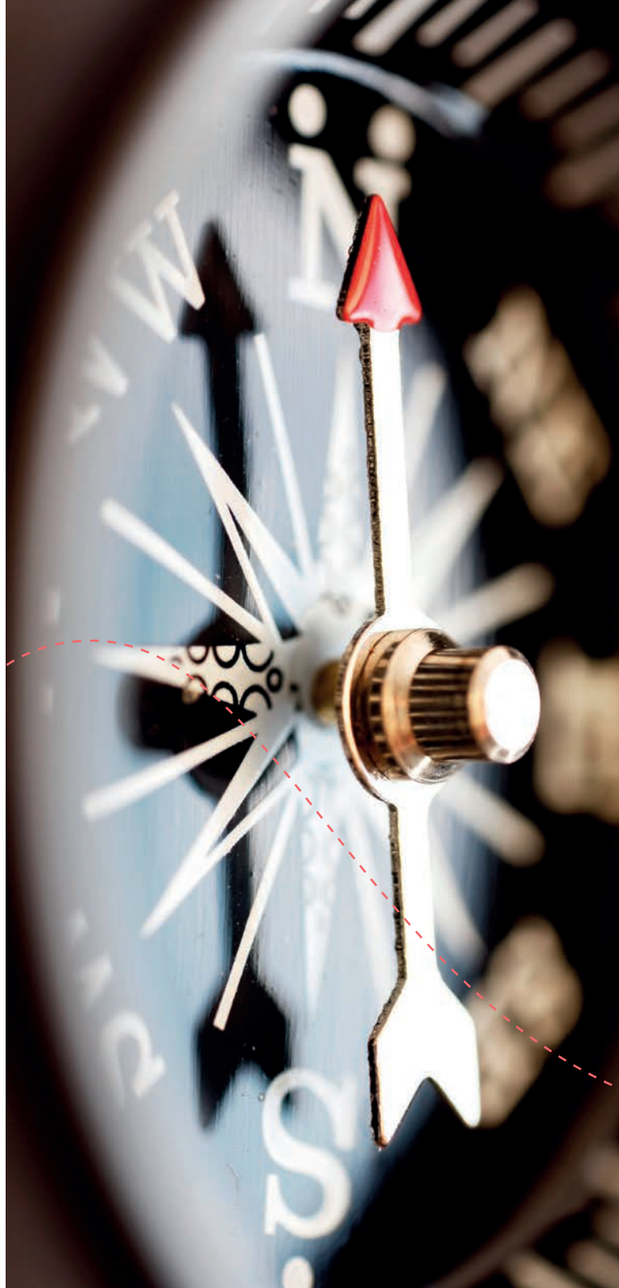
AntWorks is a global leader in Intelligent Document Processing. CMR+, AntWorks' enterprise-grade IDP platform, is built on proprietary AI, ML and NLP technologies to unlock, classify and digitize vital data in a full range of business documents. CMR+ understands and contextualizes information with unrivalled confidence, accuracy and minimal intervention. Designed for flexibility, AntWorks CMR+ is a low-code/ no-code solution that can be self-configured by business users and also provides SDK for power programmers. CMR+ processes hard-to-read, unstructured content from emails, contracts, reports, tables, images and handwriting without the need for templating, even in complex use cases. AntWorks is rated highly by Tier-1 industry analysts and used by global Fortune 500 organisations.

Delivering the benefits that others can't: the unique value of the IAC

Although awareness of the potential of intelligent automation tools in transforming the workplace is growing all the time, companies' expectations of what's possible out of the box can be unrealistic. And most responsible teams internally simply don't have the time to survey the market and decide which combination of capabilities best fits their immediate need.

The IAC is a unique bunch of experts in their respective fields, coordinated by Cognition, which can architect the best combination of solutions for any given set of circumstances, supported directly by the individual technology specialists.

Although there are organisations that claim to offer 'hyper-automation' platforms (everything from one source), using a single vendor and their marketplace still requires buyer pain as organisations shop around for the combination of capabilities they need. IAC offers a different way – a collective of specialists that brings together the best of all worlds without 'hard wiring', and leaves nothing to chance.



CHAPTER 8 / *Andrew Rayner, CTO*

THE CTO PERSPECTIVE

NOW WHAT? HOW TO HARNESS INTELLIGENT AUTOMATION TO BEST EFFECT



As you consider the potential for greater automation in your own organisation, it can be challenging to know where to start.

It's always a good idea to take stock of any existing attended and unattended automation solutions (e.g. in the form of robotic process automation or RPA) – and the associated benefits.

This should provide some clues about which processes you could transform next, by applying a higher level of intelligence.

What we mean by profoundly intelligent automation

PROFOUNDLY INTELLIGENT AUTOMATION

Productivity and Process Mining

Unlock the power of cutting-edge diagnostics tools to analyse, assess and improve the productivity of your organisation.

Identify key areas of focus and priority to build your automation journey roadmap or accelerate your existing automation journey.

Digital Assistants

Simplify and enrich human interaction with digital interfaces eg chatbots, smart forms and voice.

Enhance customer experience, enable self service capabilities and streamline simple requests.

Data Structuring

Process semi-structured or unstructured data with the use of Extraction, Classification, NLP and ML capabilities.

Tackle large volumes of inbound documents and improve through-put with intelligent document processing.

Intelligent Decisioning

Leverage a range of AI problem-solving techniques to automate complex decision flows and augment human decision making.

Integrate withand power the core application stack as well as other AI technologies.

Work Orchestration

Define activities, SLA's and competencies required to complete a process leveraging technology patterns, human and digital workers to execute taks.

End-to-end visibility across the entire process, with easy integration patterns that support multiple enabling technologies.

RPA

Automate user interactions by emulating human activity across multiple applications.

Create a 24/7 digital workforce to handle repetive manual processes. Improve utilisation of PRA by leveraging intelligent orchestration.

Single Contact | Professional Services | 1st Line Support

Single Contact | Professional Services | 1st Line Support

Get expert help

The Intelligent Automation Collection (IAC) is ideally placed to advise here, because we understand and can bring together all of the different aspects of an IA ecosystem.

That could be to fill gaps in or enhance/ streamline current capabilities, or to start you off on the right path if your current use of automation is less developed or non-existent.

Not only do we bring together best-in-class IA solutions across the entire process ecosystem; we do this without the usual headaches associated with sourcing and coordinating products from different vendors. We take care of all that.

A no-fuss foray into the future

Best of all, each tool in the IAC toolkit is available via a cloud-based SaaS model, making it very quick and easy to deploy – both for early pilots of the latest IA tools, and as these solutions are scaled up.

There's no complex integration and - because all of these solutions are designed to work together across a shared platform - they deliver rich data. Insights which can help pinpoint new process efficiencies, and even inform new services – something we talk about in Chapter 7.

And, as optimised new IA capabilities free up people's time for activities of a higher purpose, what better opportunity than for those liberated teams to bring those new service lines and revenue streams to life?

How the IAC can help

The IAC can help with any or all aspects of your IA journey.

- A **Vision Workshop** with Cognition will help you define the art of the possible – any potential you're currently missing, and what other comparable companies are doing which might inspire you.
- Our **IA Assessment** goes deeper, helping you to establish the business case for more intelligent automation capabilities, how all of this might affect your target operating model, and what an implementation plan might look like.
- We can then help you to develop and switch on a **Pilot** of your chosen new IA capabilities, to test the potential and confirm the business case.
- With a successful pilot delivered, we'll help you **Deploy & Scale** your new IA tools within the specific context of your organisation. This includes looking laterally for other opportunities to harness the same capabilities in other parts of the business.
- We also recommend regular **Health Checks** to ensure that your infrastructure is performing optimally and enabling best value. Sometimes, a build-up of fragmented solutions can create technical debt because individual tools haven't been designed to integrate and work seamlessly with other applications. We can help you move towards a more streamlined and interoperable environment, which is easier and more cost-effective to support, and which allows you to readily introduce new capabilities in future.

See the IAC's work in action

If you're interested in learning more about intelligent automation in action, or about the specific services and work of the IAC and the impact we've had for customers, please visit our web site. There you'll discover a whole range of individual and combined solution demos, as well as details of upcoming webinars you can join. You'll find our full contact details there too.


It just remains to wish you good luck on your IA journey – while urging you not to leave any part of it to chance. This is a fast-moving industry, and without the right guidance it can be all too easy to pick the wrong lane.
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