

# Intelligent Automation in healthcare

**CGI**



# Intelligent Automation in healthcare

We've heard many of our clients and partners in healthcare describe the same setback: Repetitive manual administrative tasks take valuable time and focus away from higher-value activities. Further, challenging work environments and constantly shifting priorities increase the rate of errors and delays.

By using Intelligent Automation (IA), we can shift traditionally time-consuming workloads over to a virtual workforce built specifically to complete high-volume tasks and workflows. With this added support, healthcare providers have more time to focus on higher priorities and direct patient care.

*Click on the buttons to know more*

Robotic Process  
Automation

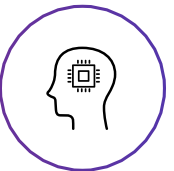
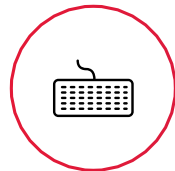
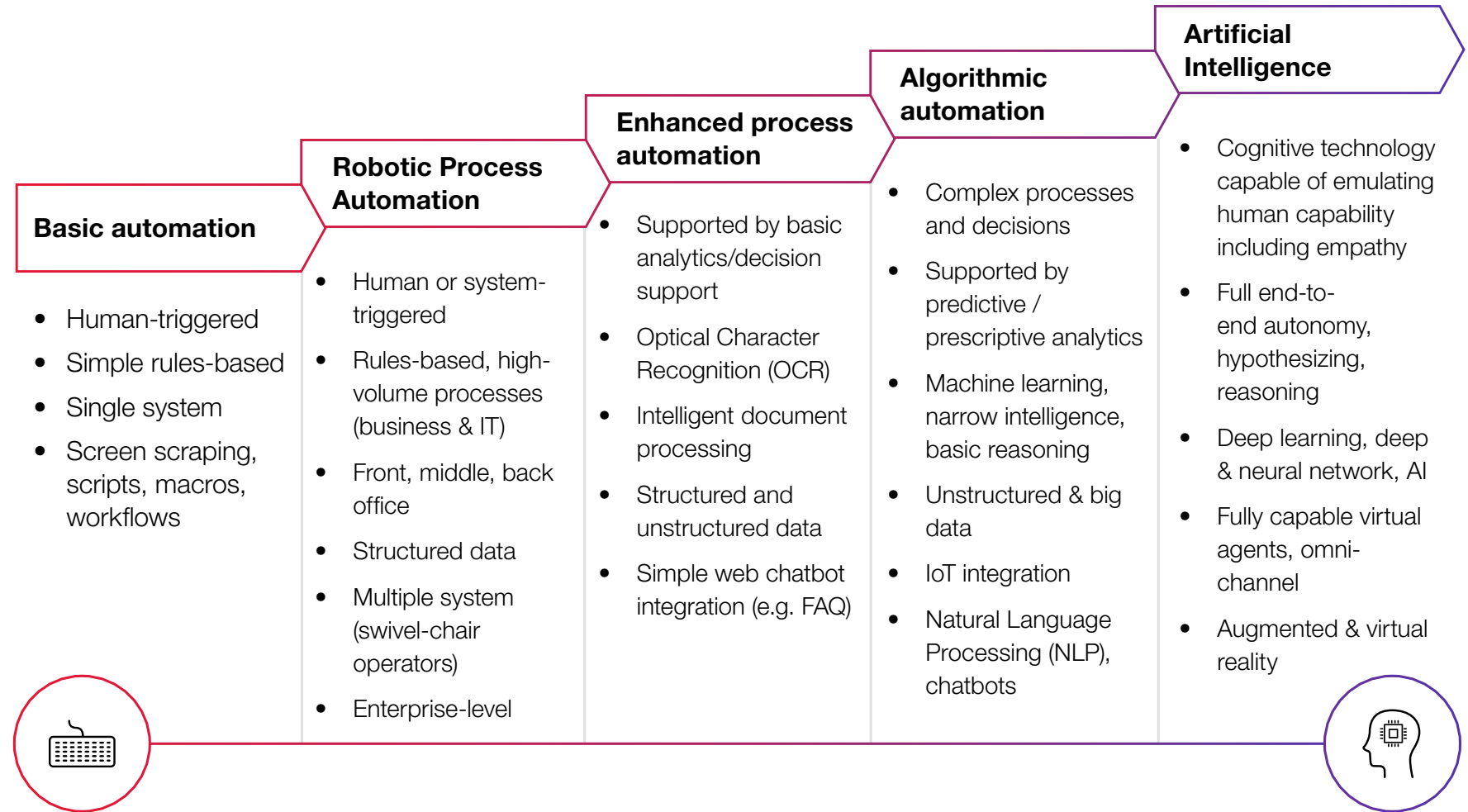
Our Service

Uses of automation  
in healthcare

Why CGI?

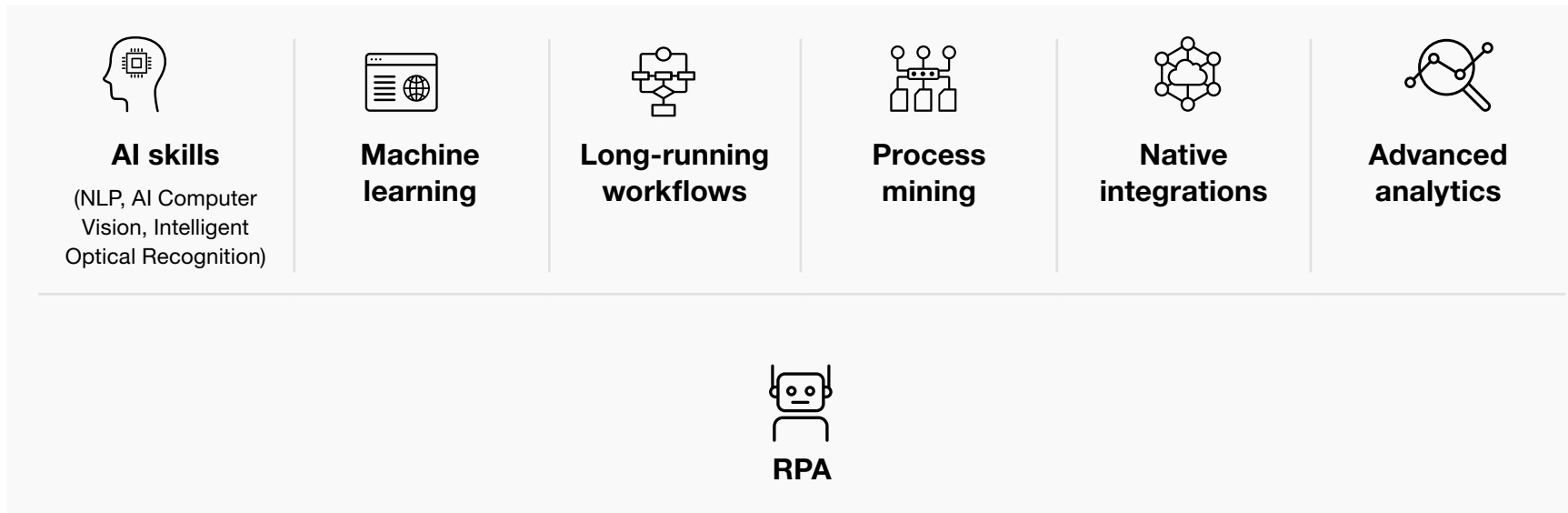
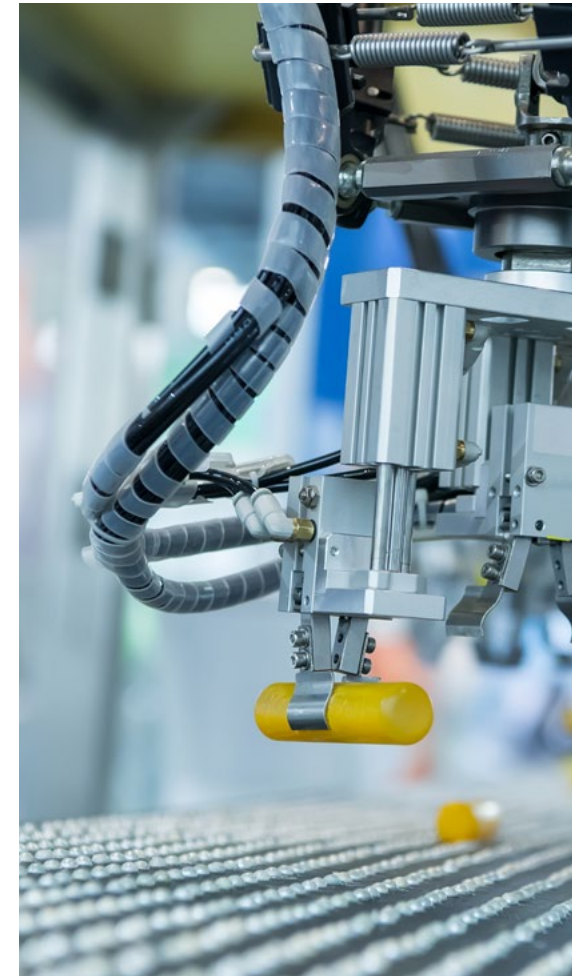
# Robotic Process Automation

Robotic Process Automation (RPA) uses technology to automate business processes through logic and structured inputs. Using RPA tools, we can configure software, or a “bot,” to scan and interpret applications for processing a transaction, manipulate data, trigger responses and communicate with other digital systems. The applications of RPA range from simpler tasks, like deploying thousands of bots programmed to automate workflows in an enterprise-level system.



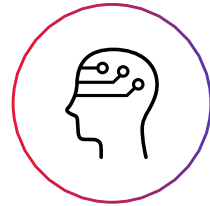
# Robotic Process Automation

Hyperautomation is the expansion of automation beyond RPA to a combination of technologies that enables an end-to-end automation lifecycle. With this solution, RPA provides the foundation on which to incorporate advanced intelligent technologies for a truly digital future.



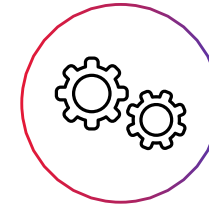
# Our service

CGI offers its Intelligent Automation (IA) Service as a guide and support for healthcare organizations regardless of where you are on your automation journey, from automating one task to implementing an end-to-end solution.



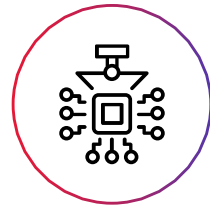
## **IA Strategy**

Assess your current service provision, business processes and supporting technology and then devise an IA strategy for your organisation as a whole



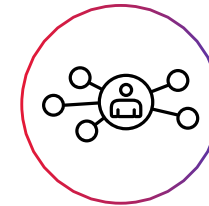
## **Managed services & continuous improvement**

24/7 platform and automation management together with quality monitoring and iterative updates



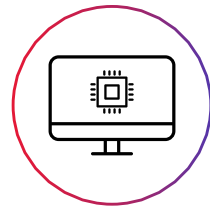
## **Automation proof of value**

Realize your IA potential with a specific project that includes process and system mapping, robot development and testing



## **Organizational change management**

Support and assist with business process changes and other change management tasks



## **Scale & Factory development**

Develop and implement IA throughout your organization

# Uses of automation in healthcare

## Provider value chain of care

Document triage	Patient access	Pharmacy/ Supply Chain	Consultation & Care	Nurse/Dr staffing	Revenue cycle management	Asset management	Provider services	Business management				
Channel intake	Patient enrollment	Fulfillment	Health and wellness	Scheduling	Billing/Claim submission	Logistics	EMR	Enterprise planning	Financial management	Business planning, design	Human Resources management	Business analytics
Data entry	Insurance verification	Patient profile	Nutritional management	Billing	Cash application	Inventory management	Referral management	Legal and compliance management	External relationship management	Enterprise administrative services	Enterprise governance	Enterprise performance management
Barcode/Scan	Benefit verification	Compliance and controls	Value-based care		Denial/Appeal Management	Replacements		Risk management	Change management	Vendor management	IT management	UX/CX
Indexing	Prior authorization	DUR review	Case management		Patient pay	Service/Repair						
	Financial planning	Order management	Utilization management		Reconciliation							
	Scheduling	Inventory management	Clinical analytics		Adjustments/ Write-offs							
	Document intake				Adjudication							
					Medical coding							

**Legend**

- High automation potential
- Medium automation potential
- Low automation potential

# Uses of automation in healthcare

## Solution benefits

- Improved ability to deliver patient care while managing costs
- Complex tasks and workflows are transformed into standardized processes, completed quickly, without errors and in a 24/7 model, leading to improved processing times and greater operational efficiency
- Much higher data accuracy compared to manual processes, due to elimination of human error and inconsistencies
- Empowered healthcare workers with higher rates of talent retention and job satisfaction, combined with a reduction in overtime and temporary staff
- Scalability to handle fluctuations in demand and seasonal variations
- Interoperability and consistency across healthcare information systems with a resulting reduction in data silos
- Higher levels of compliance with audit requirements as well as legal regulations around patient data and electronic health records



## Hyperautomation benefits

Organizations that further their digitalization journey with hyperautomation gain the ability to:

- Accelerate their digital transformation programs due to reduced complexity
- Rapidly quantify and build a pipeline of candidates for business process automation
- Reduce costs associated with the digital transformation programs given the integration of AI
- Simplify integration with other technologies allowing for the automation of long running complex processes
- Rapidly scale to manage all tasks and workflows

# Uses of automation in healthcare

## Use cases

For one of our healthcare partners in Sweden we used a multi-pronged approach to develop and leverage automation where repetitive manual labor could be offloaded to a robot, and patient health status and updates could be processed and communicated faster.

### RPA processes at the Södra Älvsborgs Hospital

Problem	
Solution	Benefits
<b>Radiology</b> —Robots manage the process of sending test results to other departments and systems and send notifications for new test results.	With test results rapidly arriving at their correct destination, patients are receiving faster, better care. At the same time, healthcare staff are seeing savings of 2,000 hours per year due to reduced workloads.
<b>Sick Leave</b> —Robots provide suggestions, assistance and validation to doctors completing standardized forms.	Sick leave enrollments and renewals are managed quickly and efficiently, while reduced administrative labour improves the working environment for healthcare staff and allows more time for patient care.
<b>Safe and Secure Enrollment</b> —Robots assist incoming patients with directions to the correct department and then sends notifications regarding the incoming patient.	By reducing misdirection to the wrong department and shortening lead time and waiting time for patients, the overall delivery of healthcare is improved. Moreover, this increased efficiency in processes and communications is leading to increased trust for digitalization within the healthcare sector.



# Uses of automation in healthcare

Listed below are some practical, successful applications of RPA through our partnerships:

## Accelerating drive-thru COVID-19 testing

Problem	
<p>With the Centers for Disease Control approving many organizations to become testing sites (labs, pharmacies, hospitals, etc.), the demand is intense. At a prominent healthcare clinic, the COVID-19 testing protocol around patient registration and test kit labelling included the need for remote registration staff to validate new/existing patients, register new patients in their electronic medical record (EMR) system and print labels at one of several remote printers. Errors in the manual processes and accidental printer routing contributed to an average 6-hour waiting time.</p>	
Solution	Benefits
<p>The clinic set up and deployed an attended robot in 48 hours to take patient data, check if they were an existing patient in the EMR, register the patient and select the correct printer for label creation.</p>	<p>What it takes a human minutes to execute can now be completed by a robot in seconds, leading to savings of 8 – 9 minutes per patient, together with the elimination of costly manual errors. Badly-needed COVID-19 testing was accelerated, reducing hospital backlogs.</p>

## Fielding a spike in insurance claims

Problem	
<p>Most insurance companies do not have the ability to adjudicate COVID-19 claims. When a patient arrives at a healthcare facility to take a test or treatment, 90% of their claims are denied leading to high expenses that must be paid upfront. As a result, insurance companies' contact centres are dealing with an extremely high volume of calls.</p>	
Solution	Benefits
<p>A publicly-funded healthcare system in Europe is building an audit robot to survey claims data, with the intention of helping patients get a clear and immediate view of their insurance eligibility.</p>	<p>By handling claims more efficiently, insurance companies will receive fewer calls and maintain a higher level of customer satisfaction.</p>

# Uses of automation in healthcare

## Accelerated healthcare hiring

Problem	
<p>To deal with the COVID-19 crisis, ambitious recruitment drives are in place to attract those with healthcare experience. At one government agency, prior to being hired, each candidate must successfully complete a police vetting process and pass a check by the institution that they have never had their employment terminated. These two steps were being done manually, leading to a significant delay in hiring.</p>	
Solution	Benefits
<p>A bot-enabled solution was implemented to replace the manual processes, making it easier to validate candidates. The time taken by a bot to process a candidate is now 10x faster than a human being.</p>	<p>With a faster vetting process, internal staff are freed to focus on the next stages of the hiring process.</p>

## Maintaining speedy communications with concerned citizens

Problem	
<p>The contact centres and other communication channels of a healthcare provider are operating at full capacity and yet are still struggling to keep up with those asking about COVID-19 symptoms, seeking care or requesting basic healthcare information.</p>	
Solution	Benefits
<p>The provider is exploring how software automation can alleviate the pressure on their contact centres. Automation can easily parse through data in multiple systems, intelligently extract targeted information about pre-existing conditions of patient populations and collate millions of emails. Such a solution can easily provide essential information such as eligible health benefits, nearest testing locations, prescriptions and tips on staying healthy.</p>	<p>With targeted and patient-specific health information easily accessible, callers will receive timely care. In turn, this will reduce the volume of inquiries and lessen the pressure on contact centres and staff.</p>

# Why CGI?

- From bots to hyperautomation, we are a long-term partner well versed in implementing intelligent automation systems and improving healthcare interactions
- We maintain superb knowledge of emerging technologies, while remaining tool-agnostic in order to identify and apply the right automation technologies to advance your digital agenda
- We have extremely strong business process abilities to identify areas for improvement in existing implementations and workflows
- Our local delivery method ensures that experts are in close proximity to you, providing speedy responses and reduced downtime



## About CGI

### **Insights you can act on**

Founded in 1976, CGI is among the largest IT and business consulting services firms in the world.

We are insights-driven and outcomes-based to help accelerate returns on your investments. Across hundreds of locations worldwide, we provide comprehensive, scalable and sustainable IT and business consulting services that are informed globally and delivered locally.

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