Cognitive Machine Reading

The only platform in the market that digitises and understands all data types

Speed of Automation

As organisations embark on process automation strategies as part of their digital transformation journey, they hit one major roadblock – how to digitise unstructured data.

Around 80% of the data in an organisation – including images, web pages, hand-written documents, signatures, and mobile content – is completely unstructured.

With conventional Optical Character Recognition (OCR) technology, digitising documents that contain signatures, handwritten text (both block and cursive) or images is almost impossible because of OCR's zone-based or template-dependent data extraction methods.

AntWorks' Cognitive Machine Reading is referred to in this brochure as CMR.

"AntWorks CMR's **high accuracy** across the tested document types, even with small training sets, and its **outstanding ease-of-use** allows buyers to democratise the use of document cognition across the organisation easily."
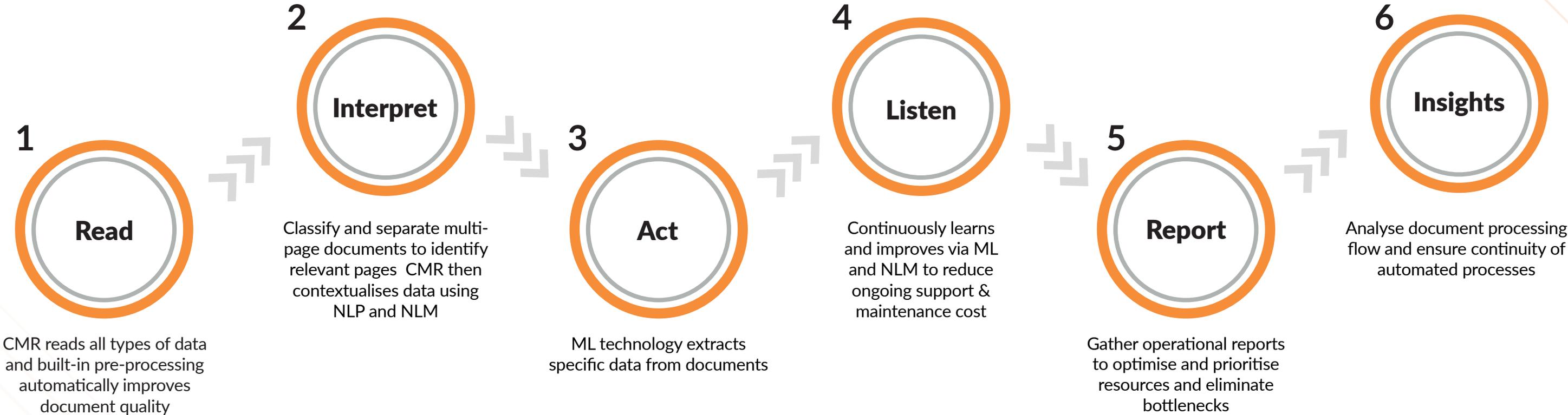
Mike Smart
Senior Digital Transformation Analyst

NelsonHall

Journey From Input To Insight

1

Read

CMR reads all types of data and built-in pre-processing automatically improves document quality

2

Interpret

Classify and separate multi-page documents to identify relevant pages CMR then contextualises data using NLP and NLM

3

Act

ML technology extracts specific data from documents

4

Listen

Continuously learns and improves via ML and NLM to reduce ongoing support & maintenance cost

5

Report

Gather operational reports to optimise and prioritise resources and eliminate bottlenecks

6

Insights

Analyse document processing flow and ensure continuity of automated processes

Cognitive Machine Reading (CMR) combines the power of AI technologies such as Natural Language Processing (NLP), Machine Vision, Natural Language Modeling (NLM) and Machine Learning (ML) to automatically pre-process, classify, extract, and validate all types of data.

OCR vs. CMR

OCR

- Limited to structured data
- Struggles with handwriting
- Cannot read unstructured documents

- Requires constant intervention for dealing with document variances by creating templates and requiring zones

- Uses neural-based ML which requires large amounts of data to train

- Low processing speed by using sequential & linear character match

CMR

- Best-in-class for unstructured data including handwritten text (both block and cursive), signatures and object recognition

- Flexible technology
- Template independent

- Uses fractal-based ML requiring smaller data sets for same accuracy yield

- Higher processing speed by using just-in-time pattern recognition methods

Results
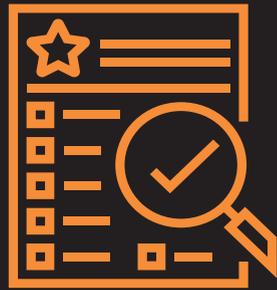
- Greater capture rate and accuracy

- Faster set-up time and less complexity

- Lower training and infrastructure requirements
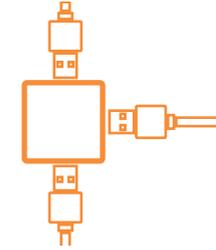
- Higher processing speeds
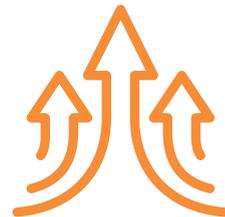
Key Features

Multi-Lingual Extraction
Capture data in more than 50 languages including Chinese, Japanese, Arabic, and more

Easy Integration
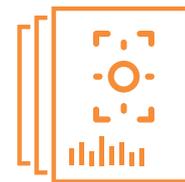CMR's REST API enables tight integration into any system

AI-Powered Continuous Improvement
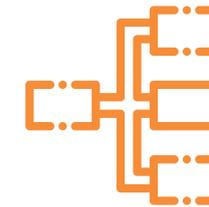Constantly improves accuracy via ML ensuring quality control

Flexible Deployment Options
CMR can run where it makes sense for your business, and configurations can be deployed via multi-tenant cloud or on premise

Superior Data Capture
Digitise and process all types of data including handwritten text (both block and cursive), stamps, IDs, and signatures

Configurable Business Rules
Apply business rules at point of capture. Leverage Natural Language Modelling to contextualised and apply inference logic to enrich data set

Intelligent Classification
Leverage ML to automatically classify, identify, separate and group similar documents

Enterprise-Ready
Process complex documents such as ACORD files, SEC filings, T2/T3, etc. Extract tabular data, including multi-lines, and dual tables

Business Benefits with CMR

- Reduce processing cost and increase employee productivity by eliminating labour-intensive manual key entry

- Better and faster operations by digitising documents at point of entry

- From guaranteed return of investments to maximising the reduction of processing time, get better results for your automation initiatives

- Meet regulatory requirements and service level agreements

- Deliver IT savings. Requires less data and lower infrastructure cost by leveraging the most efficient ML technology in the market

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"Our first implementation with CMR, we were able to realise a very high accuracy in the conversion rate. In fact, we realised more than 85 percent to be exact."

Jason Chin
VP, Information Technology

Scoot Airlines

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CMR Addresses Industry Specific Needs

Banking and Finance

Improve customer satisfaction, liquidity, and streamline financial operations by automating manual paper work in bank account opening, credit card applications and processing, loan origination and other processes.

Insurance

Automate new account openings, manage risk and speed the processing of various document types such as benefit forms, policy agreements and claims.
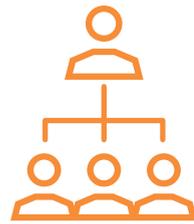
BPO

Ideal for document processing service providers focussing on single business needs or Business Process Outsource organisations supporting end-to-end business processes. Improve data quality, eliminate manual processes and meet service level agreements.

Healthcare

Improve patient experience, reduce compliance risk and increase the efficiency of document processing, including patient records and medical prescription forms.

Legal

Process and manage a wide variety of legal documents including contracts, benefit enrollment forms, application forms, pleadings, correspondence and more.

Transportation and Logistics

Accelerate transactions and increase the efficiency of document flows. Automatically process documents such as bill of lading, commercial invoices, delivery receipts, among others to carry out critical business information and gain visibility into business processes.

Cognitive Machine Reading

We are passionate about our work because we know the possibilities are endless for AI, as we empower you to overcome today's data challenges. AntWorks clears the data digitisation roadblocks and helps organisations navigate into automation success.

CMR can be purchased as a standalone. All AntWorks products are also available as part of our Integrated Automation Platform (IAP) – ANTstein™ SQUARE.

LEARN MORE

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For more information, visit www.ant.works

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