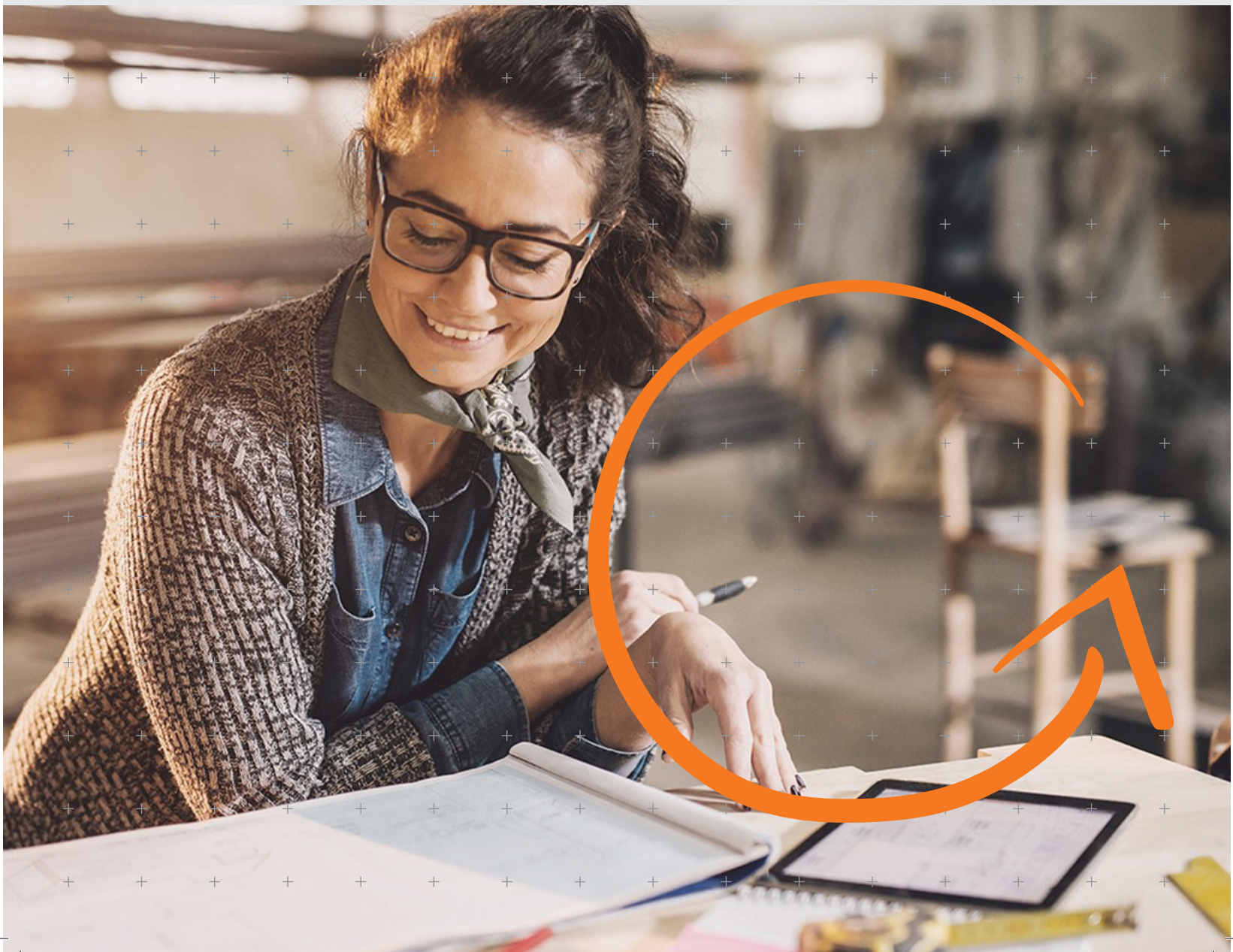# KYOCERA

The future of document processing: AI, automation, and efficiency

The transformative power of intelligent document processing (IDP):
Leveraging AI/ML and handling unstructured documents

Executive summary

Unlocking business efficiency with intelligent document processing.

In the digital era, businesses face an overwhelming influx of data from diverse sources—ranging from paper documents to emails, images, and handwritten notes. Traditional document capture, primarily reliant on Optical Character Recognition (OCR), excels at processing structured documents like invoices and purchase orders. However, the evolution into Intelligent Document Processing (IDP) harnesses artificial intelligence (AI) and machine learning (ML) to extract, classify, and process data from both structured and unstructured documents. IDP transforms business operations by streamlining workflows, enhancing data accessibility, and driving compliance.

This whitepaper highlights the strategic importance of IDP, emphasising how AI/ML and automated unstructured data capture unlock value and deliver operational excellence.

+ Introduction

As digital transformation accelerates, businesses are transitioning from traditional OCR-based document capture to more advanced solutions. Intelligent Document Processing (IDP) stands at the forefront, leveraging AI/ML to interpret, categorise, and process structured and unstructured documents. This transformation reduces manual effort, increases accuracy, and powers downstream business processes.

+ The advantages of intelligent document processing

1

Efficiency and productivity
AI-powered document capture automates data entry and extraction from structured (e.g., invoices) and unstructured documents (e.g., emails and handwritten notes). Using advanced AI models and natural language processing (NLP), IDP reduces manual intervention and accelerates workflows.

2

Cost savings
IDP lowers operational costs by automating data extraction and reducing errors associated with manual processing. A report from McKinsey highlights that companies can achieve up to 30% cost reduction by adopting comprehensive document capture solutions.

3

Data security and compliance
With increasing regulatory requirements and data breaches, ensuring data security, encrypted storage and compliance are paramount. Document capture solutions offer enhanced security features such as encryption, access controls, and audit trails, helping businesses protect sensitive information and meet compliance and data protection standards.

4

Enhanced collaboration and accessibility
Digitised documents can be easily shared and accessed across teams, facilitating better collaboration and decision-making. This capability is especially crucial in today's remote and hybrid work environments, where seamless and quick access to information is vital for maintaining productivity.

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Document capture is no longer just about scanning; it's about extracting insight and automating processes through intelligent workflows.

- Greg Griffith
Product Marketing Team Lead at Kyocera Document Solutions South Africa

+ **Recognising the right time for IDP investment**

Understanding when to invest in a document capture system is crucial for businesses aiming to optimise their operations and embrace digital transformation.

To determine if now is the right time to make this investment, consider the following questions. If you find yourself answering "yes" to more than half of these questions, it may be time to explore the benefits of a document capture solution.

1. Do you experience frequent delays in retrieving important documents?
2. Are you facing high costs related to paper usage, manual data entry, data storage, and management?
3. Is data accuracy and compliance a concern for your organisation?
4. Do you find it challenging to manage increasing document volumes and unstructured data as your business grows?
5. Do you struggle with integrating document management with other business systems?
6. Are your employees resistant to using existing document processes due to their complexity or inefficiency?
7. Is your organisation aiming to enhance collaboration and remote work capabilities?

+ **Tools to determine ROI**

To accurately assess the return on investment (ROI) for IDP, consider the following metrics:

• **Time saved** by calculating the reduction in time spent on manual data entry and document retrieval.
• **Error reduction** by measuring the decrease in data entry errors and associated costs.
• **Cost savings** by evaluating savings from reduced paper usage, printing costs, storage, and manual processing.
• **Improved efficiency** through assessing improvements in workflow efficiency and overall business productivity.
• **Robust security** by tracking unauthorised access, data breaches, and cyber threats.

+ **Preparing for success with IDP**

1

Understand your needs
Evaluate your organisation's specific needs and identify areas where document capture and unstructured document types can add the most value. This involves analysing current workflows and pinpointing bottlenecks.

2

Choose the right solution
Partnering with Kyocera ensures access to tailored solutions that integrate with existing systems and use AI/ML for intelligent document classification.

3

Train your team
Proper training is essential to maximise the benefits of document capture technology. Ensure that your team understands how to use the system effectively and the importance of maintaining data quality.

4

Monitor and optimise
Continuously monitor the performance of your document capture solution and adjust as needed. This proactive approach ensures that the system evolves with your business needs.

+ Kyocera solution overview: Intelligent Document Processing with AI/ML

In today's fast-paced business landscape, the ability to efficiently manage and utilise information is crucial to maintaining a competitive edge. Kyocera's Intelligent Document Processing solutions combine AI/ML technology with advanced OCR to automate the capture and classification of both structured and unstructured documents. This offers a comprehensive solution by transforming the way businesses handle data, moving beyond traditional paper-based systems to embrace digital efficiency and accuracy.

Transformative document capture technology
Document capture technology is more than just digitising paper documents; it is about creating a seamless flow of information that enhances operational efficiency, data security, and strategic decision-making. This transformation allows organisations to streamline processes, reduce costs, and improve access to critical information, regardless of format or source.

Key transformative processes:

1

AI-driven automation and intelligence reduce manual intervention, allowing employees to focus on value-added tasks. By utilising intelligent data recognition, such as Optical Character Recognition (OCR) and Intelligent Character Recognition (ICR), the solution processes and classifies diverse document types, extracting relevant information for downstream systems.

2

An integrated ecosystem is designed with seamless connectivity with existing enterprise applications, such as ERP, CRM, and ECM platforms. This connectivity facilitates smoother workflows and data sharing across departments, enhancing collaboration and decision-making.

3

Scalability and adaptability ensure the increasing demands of larger data volumes and expanded user bases are accommodated with a scalable and adaptable solution. This scalability supports high-volume processing and learns from data patterns to improve over time.

4

Security and compliance require robust protection to ensure data integrity, including encryption, access control, and audit trails.

5

Sustainability is achieved by reducing paper reliance and consumption, printing, and storage requirements. These solutions align with corporate sustainability goals, contributing to a smaller carbon footprint.

+ Ignore the importance of document capture and Intelligent Document Processing (IDP) at your peril

Ignoring the importance of document capture and IDP leads to inefficiency, increased costs, compliance risks, and a loss of competitive advantage. Embracing document capture technology is essential for modern businesses to enhance efficiency, ensure good governance, and stay competitive in a rapidly evolving digital landscape.

Here are some potential risks and challenges that businesses may face if they neglect document capture solutions: -

1. Decreased efficiency and productivity
Without automated document capture and processing, businesses rely heavily on manual processes, which can be time-consuming and error prone. Employees spend valuable time searching for, filing, and processing paper documents, which detracts from more strategic tasks.

2. Higher operational costs
Manual document handling involves significant costs related to paper, printing, storage, and administrative labour. Companies that fail to adopt document capture solutions miss out on cost savings from reduced paper usage, storage space, and manual processing efforts.

3. Poor data accessibility and collaboration
In a paper-based environment, accessing documents can be slow and cumbersome. Employees may struggle to find the information they need, leading to reduced collaboration and slower decision-making. Businesses also miss out on the benefits of centralised digital repositories that enhance data accessibility across teams, especially in remote or hybrid work settings.

4. Increased risk of errors and compliance issues
Manual data entry is susceptible to human errors, which can lead to inaccuracies in business records. These errors can have cascading effects, resulting in poor decision-making, financial discrepancies, and potential compliance violations.

5. Inadequate security and risk of data loss
Physical documents are vulnerable to theft, damage, and loss, posing significant security risks. Without document capture, companies may struggle to protect sensitive information and maintain data integrity. Digital solutions offer enhanced security features, such as encryption, access controls, and audit trails to safeguard information.

6. Missed opportunities for digital transformation
Document capture and processing is a critical component of digital transformation, enabling businesses to streamline processes, including managing unstructured data and leveraging data-driven insights. Companies that overlook it may fall behind competitors who embrace digital technologies to optimise operations and enhance customer experiences.

7. Negative environmental impact
Paper-based processes contribute to environmental degradation through paper consumption, printing, and waste. By not adopting document capture solutions, companies miss opportunities to reduce their carbon footprint and promote sustainability.

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By leveraging technologies such as artificial intelligence (AI) and machine learning (ML), the Ideal solution automates repetitive tasks, enhances data classification, and facilitates content retrieval. This not only saves time but also enables employees to focus on more strategic and value-added activities.

- Greg Griffith
Product Marketing Team Lead at Kyocera Document Solutions South Africa

+ Document capture in various industries

Document capture solutions can be tailored to meet the specific needs of certain industries such as healthcare, finance, and legal services. Here are some generic examples of how document capture solutions can be tailored to specific industries:

1. Healthcare example: - patient records management

Problem:
Healthcare providers often struggle with managing vast amounts of patient data, including medical histories, lab results, and billing information. Paper records can be cumbersome, leading to inefficiencies and potential errors in patient care.

Solution:
Document capture solutions can digitise paper records, using Optical Character Recognition (OCR) to automatically extract data from forms and store it in a centralised electronic health records (EHR) system. This integration allows healthcare providers to access patient information quickly and accurately, reducing errors and enhancing patient care.

2. Finance example: - loan application processing

Problem:
Financial institutions handle high volumes of documents, including loan applications, credit reports, emails, and supporting documents such as pay slips or handwritten notes. Unstructured data—such as emails, scanned correspondence, or identification documents—often requires manual review, increasing processing times and the risk of errors, which can negatively impact customer experience and business efficiency.

Solution:
Intelligent Document Processing (IDP) technology, powered by AI and ML, automates the capture and processing of both structured and unstructured financial documents. The system uses Natural Language Processing (NLP) to extract insights from email correspondence and handwritten notes, and AI-driven classification to sort and route documents to appropriate departments. Machine learning models analyse and extract key information such as income details from bank statements and credit scores from reports, while verifying data accuracy against external sources. Additionally, AI-powered anomaly detection flags potential fraud or inconsistencies, enhancing security.

3. Legal services example: - case file management

Problem:
Legal firms handle large volumes of documents, including contracts, court filings, emails, and client correspondence. Unstructured data, such as scanned documents and handwritten notes, complicates case management and slows client interactions.

Solution:
Intelligent Document Processing (IDP) solutions powered by AI/ML digitise and analyse structured and unstructured documents. AI classifies case files and extracts key terms from contracts, emails, and notes. Natural Language Processing (NLP) enables advanced search and discovery, making case research faster and more accurate. Metadata tagging and full-text search ensure relevant information is easily accessible.

4. Manufacturing example: - quality assurance and compliance

Problem:
Manufacturers must manage quality control, compliance, and supply chain documentation, including handwritten logs and inspection reports. Manual systems risk misfiling and non-compliance.

Solution:
AI-powered document capture systems digitise quality assurance records and unstructured documents, such as inspection photos and technician notes. Machine learning models analyse documents for trends and flag anomalies for immediate review. Automatic tagging and integration with compliance software ensure prompt corrective actions and audits.

5. Education example: - student enrolment and records

Problem:
Educational institutions manage vast amounts of documents for student enrolment, academic records, and communications. Unstructured data, such as recommendation letters and handwritten forms, complicates record-keeping.

Solution:
IDP solutions automate the processing of structured forms and unstructured documents like scanned transcripts and letters. AI/ML classifies documents and extracts essential details, such as grades and credentials, for integration into student information systems (SIS). Automated verification processes ensure data accuracy, speeding up enrolment and records management.

+ Conclusion

Document capture offers businesses a pathway to improved efficiency, cost savings, and data security. Intelligent Document Processing (IDP) is not just the evolution of this document capture—it is the future of digital transformation. By leveraging AI and ML to process structured and unstructured documents, businesses unlock new efficiencies, reduce errors, and future-proof their operations.

By partnering with a trusted vendor like Kyocera, organisations can ensure they implement a solution that not only meets current needs, but also scales with future growth in a solution of this nature is an investment in your company's future. With the right partner, businesses can unlock the full potential of their data and drive meaningful change in business operations.

To explore how Kyocera's solutions can benefit your organisation, contact our team today for a consultation and demo.

Visit Kyocera Document Solutions South Africa today.

> " Intelligent document processing isn't just an upgrade—it's a strategic advantage. By harnessing AI and ML to unlock insights from every document, organisations can drive efficiency, enhance accuracy, and future-proof their operations for the digital age.
>
> - Greg Griffith
> Product Marketing Team Lead at Kyocera Document Solutions South Africa

KYOCERA Document Solutions South Africa

90 Bekker Road | Hertford Office Park | Vorna Valley | Midrand
Tel +27 (011) 595 2600
www.kyoceradocumentsolutions.co.za
info@dza.kyocera.com

KYOCERA

kyoceradocumentsolutions.co.za