



# RevEI Application

Leveraging AI to move to the next level of digitisation



Over the years, digitisation of paper documents has led to the growth of image data in volume, velocity and variety. Organisations have embedded the ability to view scanned images and manually enter data from them to improve the business processes and to add value to the business.

Nevertheless, every organisation struggles with the ability to ingest and capture relevant data from scanned images due to high complexity and lack of tools to automate these processes. It is time consuming, and inefficient in most of the cases, and requires significant level of manual processing. It gets more difficult while handling non-standard or unstructured documents.

Currently, in secured lending, financial institutions have a huge scope for digitisation as only 40% of the processes are “digitised” and more than 50% are “paper based”. Additionally, only a negligible few are able to automatically ingest data from scanned images and leverage it for further automation.

### Variety and complexity introduced by different document types



#### Structured

These documents are in standard format & templates with fixed location for specific data-sets. Bots find it easy to extract relevant information from these documents. e.g. Passport, Loan Application Forms etc.



#### Semi - structured

These documents do not have a formal structure, design and layout. Information within these documents shall be tagged but placement could differ. e.g. Invoices, Financial Statements etc.



#### Unstructured

These documents have no standard structure, data is free-flowing & lacks consistency. Extraction from these documents is time consuming, costly & error prone. e.g. Contracts, Agreements, Emails etc.

### Overall impact of paper based processes

- Reduced profitability as a result of high costs
- Management overheads and storage concerns
- Fatigue, poor performance & experience
- Process complexity
- Highly error prone

### Additional challenges faced while processing loans with fragmented non-collated paper based case documents:

- Data capture and input from multiple sources
- Documents are stored in multiple locations, systems and media
- Parallel processing of case is not possible due to fragmentation
- Case documents are not searchable
- Electronic case files cannot be annotated
- Maintaining and controlling document versions is cumbersome
- Comparison of multiple document versions without printing
- Manual data entry and validations of information is error prone

## OCR solutions and the need for Intelligent Data Processing (IDP) solutions

Optical Character Recognition (OCR) technology allows systems to capture data from images or printed sources, converts it to electronic format and stores for further use.

But standalone OCR solutions lack the intelligence to handle different types of documents (especially the unstructured, non-standard data formats), to capture relevant data fields and to integrate them into business processes for improving efficiency & reducing cost and for enabling further decision making.

### Approach of IDP Solutions

IDP solutions involve a combination of multiple AI technologies to create a content flow that integrates into the existing business work flow and internal systems, improving the overall process efficiency. IDP solutions also provide documents storage capabilities in a secured manner, help with data capture and ingestion from various sources, data extraction from documents of different formats and of multiple languages, and classification of documents using NLP and text analytics.

Scanning devices and mobile capture technologies have further extended the scope directly to the fields; Data can now be captured, streamlined and managed by advance document handling capabilities from customer's home or workplace to other remote locations.

## Salient features of an Intelligent Data Processing

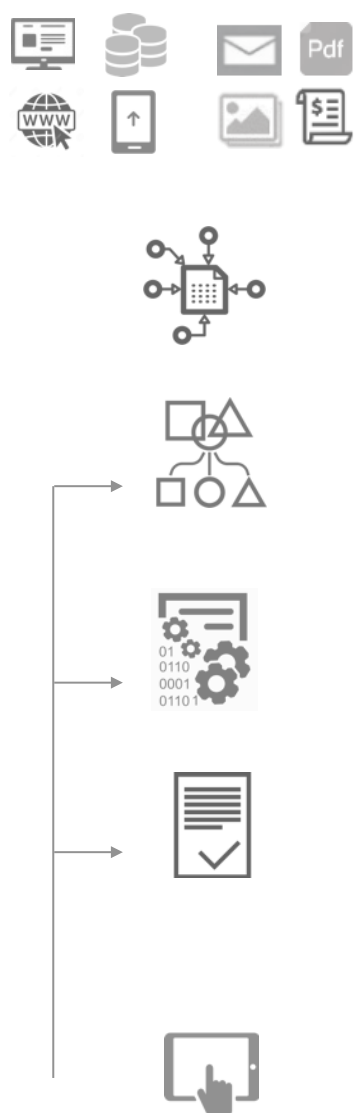
- Data capture and input from multiple sources
- Data extraction capabilities for multiple languages
- Integration into existing business process management systems
- Document classification using NLP & text analytics
- Intelligent automation and decision making
- Secure and reliable system that protects interests of multiple parties
- Document storage capabilities
- Best in class user experience

## Key IDP evaluation criteria

- **Accuracy:** set up accuracy standards for different types of data and documents you plan to capture
- **Flexibility:** based on business requirements, choose intelligent solutions that offer content management and automation
- **Reliability:** should be intelligent to mirror human comprehension and decision-making capabilities through context and error recognition
- **Self-learning Capability:** how does the solution perform with new data types or formats

## The Digilytics™ approach designed for secured lenders

RevEI application has been designed to bring the power of AI into document heavy processes in the lending industry. It aims to address the challenges introduced by fragmented and non-collated case material to get complete control, audit compliance & a single source of truth, abolish non value added manual data entry, add intelligence & immensely improve the user experience.



### Documents are collated

- of different formats (pdfs, images etc.)
- from multiple sources (portals, 3P providers, internal databases etc.)

### Data is captured

- using OCR & computer vision technology

### Documents are split, identified & classified

- into defined file structures & categories
- using text mining and ML

### Relevant data is extracted and presented

- from active documents
- using NLP & context learning across
- in a format to easily verify and modify

### Data validation is done

- by cross referencing across all data i.e. from documents & external sources
- checks done for completeness, correctness and consistency
- to generate report at case, document & field levels
- using business rules & ML

### Actions captured to train

- for continuously improving accuracy and identifying new validation rules

### Validation report presented to human

- for final approval & necessary actions
- on approval data is fed into downstream applications

## Additional productivity enhancing features:



### Intuitive User Experience

Can facilitate concurrent document viewing across multiple documents. E.g.: signature comparisons, select & share options directly from cases, drag & drop feature to support page(s) movements across documents.



### Centralized Repository

Allows complete control, audit compliance & provides a single source of truth for all documents produced or received across organisation. Document versioning & duplication can be managed easily across the module.



### Configurable Indexed Classification

Easily configurable file storage templates catering to applications across industries banking & mortgages



### Annotation

Enabling annotations, markers and highlight on the pages of a document. Annotated data further fed for contextual data extraction.



### Smart Checklist

Automated checklists and workflows to assist users for mandatory checks.



### Configurable Role Based Access

Provides a layer of configurability in defining roles & access.

## Integration with transactional systems

Expands the possibilities & improves the customer experience by having the ability to seamlessly integrate with not only document mailing and archiving solutions but also with transactional systems such as LOS, CRM Dynamics etc.

A leading UK specialist lender implemented RevEI application with the objective of bringing a new level of automation within their loan origination process. The scanned loan documents were shared from customers and brokers, which were then processed to read classify and store the relevant information from these e-documents and make it accessible for the case preparation team. The customers' details from the loan applications were validated and verified from the information captured and most of the manual verification processes were automated to reduce the processing time.

## Key benefits realised:

### Enhanced customer experience

Better broker and colleague experience with fast, efficient & transparent loan origination. Minimizes human interaction that lead to errors.

### Enhanced colleague experience

Improves accessibility of documents amongst employees, especially in remote locations. Increases scalability to handle customers data keeping expenses low.

### First time right applications & Faster TTO

See a faster TTO (time to offer) by reducing human error and no loss of files. Automates the entire origination process enabling lenders to reap the cost saving benefits.

### Lower process times & higher accuracies

Delivers high accuracy and reduces error rate significantly compared to manual paper-based process. Assists with reporting, monitoring and with increased security control helps in audit compliances.

## About Digilytics AI

At Digilytics™, we aim to drive business value leveraging our platform. In an ever-crowded world of clever technology solutions looking for a problem to solve, our solutions start with a keen understanding of what creates and what destroys value in your business. Founded in 2014, by Arindom Basu, the leadership of Digilytics™ is deeply rooted in leveraging disruptive technology to drive profitable business growth. With over 50 years of combined experience in technology-enabled change, the Digilytics™ leadership is focused on building a values-first firm that will stand the test of time. The leadership strongly believes in the ethos of enabling intelligence across the organization. Digilytics™ is headquartered in London, with presence across India. All rights reserved. Other company and product names may be trademarks or copyrights of their respective owners.

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