One of the fastest Cognitive Information Mining Platforms, Agnitio is a Versatile AI-driven data extraction framework for intelligent business process automation, driving value from data in documents and images.

#BusinessProcessAutomation #UnstructuredData #DeepLearning
Unstructured Data - A Mammoth To Deal With: 80% Of The Enterprise Content

Enterprise content is a mix of structured and unstructured data. The structured data, relatively easy to analyze, can be available as part of any business process. Technologies to store and process the structured data are quite mature, helping solve most of today’s analytics requirements. But, with unstructured data, which is 80% of the enterprise content (documents, images, PDFs, text files, emails, etc.), it is very difficult to analyze and process the same, for day-to-day decisions or usage in business processes. In enterprises, many business processes aren’t completely digital and there are paper-based documents used. Processes such as customer onboarding, insurance renewal, accounts payable, claims processing, customer service have a lot of documents which are manually processed and analyzed.

Business Challenges In Dealing With Unstructured Data

<table>
<thead>
<tr>
<th>Complex Data Elements</th>
<th>High Operational Cost</th>
<th>Conventional Tech</th>
<th>Customer Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Templates that vary as per businesses and functions, with varied paras, embedded images, tables, etc.</td>
<td>Costly storage and manual processing, time-consuming and prone to errors.</td>
<td>Conventional OCR that’s not scalable and require niche skills for solution configuration and processing.</td>
<td>Providing seamless customer experience is a challenge when dealing with complex documents.</td>
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</tbody>
</table>

LTI Mosaic Agnitio: Cognitive Solution For Data Extraction And Process Automation

Mosaic Agnitio is built on the foundation of Cognitive Information Mining Framework with Cognitive Engines Suite to learn - The changing variety and complexity of data elements in documents

- Document Processing and Automation Capabilities to ingest, process, and make the extracted data part of business workflows
- Human-Machine interaction capabilities for us to train and verify the work of digital workers.

With Agnitio, users can do away with the mundane job of processing documents and can focus more on value-added tasks and deliveries. Mosaic Agnitio leverages deep learning to process documents and extracts data from all the variety of documents such as searchable and non-searchable PDF, DOC, DOCX, XLS, XLSX, TIFF, PNG, JPG, etc.
Benefits – With Mosaic Agnitio In Action

With the capabilities to process documents and mine information from unstructured datasets, Agnitio can help in automating any business process with ease or can be leveraged for developing knowledge platforms for enterprises.

Intelligent Business Process Automation

Mosaic Agnitio can help develop data extraction solutions from the documents and images, which can be then used by Robotics Process Automation (RPA) or Business Process Automation (BPA) solutions to deliver Intelligent Automation (IA). Mosaic Agnitio offers various capabilities to integrate with RPA and BPA systems, allowing automation levers to automate the business processes with documents and images. Some of the examples of these business process are:

Customer On-Boarding
Across business domains, customer on-boarding is the key step in the whole customer experience. Providing a seamless experience to customers with quick validation of the documents and reducing the cycle-time for on-boarding is achievable, by automating the data extraction from KYC documents.

Insurance Policy Review and Renewal Process
Insurance quotations and binder documents keep varying and the brokers have to review the documents for renewals - it is quite manual intensive work. Agnitio can be leveraged to automatically classify and mine the information for comparison to fastrack the renewal process.

Mosaic Agnitio can help mine the FAQs, Troubleshooting, and other product-related information, from user manuals and product documents, for self-service through conversational interfaces.

Procurement & Logistics – Shipment Tracking
The logistics domain typically uses a lot of paper across the processes. It is easily possible to extract data and use part of the business process from documents such as invoices, Purchase Order, Bill Of material, etc. with Agnitio.

Product Labelling for CPG
Product labels are printed and compared typically in new product development and shipping process. With advanced AI and image pre-processing modules on Agnitio, it is possible to analyze and process complex images for such processes.

Financial Statement Compliance Submissions and Reporting
Mosaic Agnitio can handle the changing variety and complexity of financial statements for reporting purposes.

And many more use cases...
Enterprise Knowledge Platform

With the capabilities of mining information from documents, images, and other unstructured data, it is possible to build an enterprise-wide knowledge platform on the data storage, associate the documents together, and map the entities for intelligent search.

Intelligent Document search across Enterprise

By learning the document context, the extracted entities, clauses, and information, these can be used for searching documents that are available in any data store. An intelligent search can be enabled in the enterprise catalog or document search systems.

Knowledge Nugget Tagging

Knowledge in an enterprise can be hidden in documents and images which are never processed and mined. Mosaic Agnitio can help tag the paragraphs, tables, embedded images, entities, and other information in the document and map them in a knowledge graph, allowing them to answer any questions asked about the business users.

Natural Language Understanding – Summarizing, Risk, Intent Analysis

It is often difficult for business users to read long documents and make out their usefulness. With NLU capabilities of Mosaic Agnitio, the documents understanding for any user interaction can be enabled easily.
Salient Features

Mosaic Agnitio is built on the foundations of Cognitive Information Mining framework, to build and run solutions of data extraction and information mining at scale, handling a variety of unstructured documents and images. Any solution for business process automation or knowledge mining can be built and run in simple steps: Solution Build and Solution Run.

The framework is supported by four key pillars: configure & train to build a one-time solution, specific to a line of business, and then execute & train for processing the documents during runtime, and gathering feedback from users for adaptive learning.

Cognitive Engines Suite:

Pre-built Deep Learning and Machine Learning models to learn the changing context in the documents and apply computer vision to classify and process the documents for data extraction, knowledge mining, and document understanding.

AI Tutoring:

Tutoring interfaces for an ensemble of models training a few initial documents and images. A way to teach AI the way business users will perform the task of document processing.

Document Processing Capabilities: With pre-built and integrated data connectors, documents can be ingested for initial tutoring and processing. Documents can be processed in various ways - batches can be created by schedule or on-demand or with continuous processing hot-folders. Solution APIs support integration with RPAs, BPAs, and any upstream/downstream systems for process automation and knowledge consumption.

QC Verification and Adaptive Learning:

QC interfaces on the platform provide business users the capability of quick and easy verification of the work done by AI in document processing and help provide feedback for adaptive and continuous learning to improve over time.

Fuzzy Matching and Tabular Data Extraction:

Learning-based data extraction and knowledge mining are supported by tabular data extraction and rule-based extraction modules to easily extract data from less changing variety templates.

Image Enhancement:

Deep Learning based image quality checks and enhancements automate the process of improving the images before the OCR is performed to make the extraction process even more efficient.
Product Architecture -

<table>
<thead>
<tr>
<th>File Stores / Upstream / Source Systems</th>
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<tr>
<td>QC Verification (validation/save/export/re-train)</td>
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<tr>
<td>Consumption Layer - Feedback (Batch/Interactive/API)</td>
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<tr>
<td>Cognitive Services (NER/Table/Classification-AI Models)</td>
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<tr>
<td>Document Conversion (OCR/Conversion Utilities)</td>
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<tr>
<td>Data Storage (Files/Document layout/Training Labels)</td>
</tr>
<tr>
<td>Virtualized-Scalable Infrastructure - AI Logistics</td>
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<tr>
<td>Infrastructure / Deployment (On-Cloud / On Premise)</td>
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</table>

Deployment Options
Flexibly deploy on cloud or on-premises

Deployment Options

aws | Azure | Google Cloud | On-premise

A versatile AI-driven data extraction framework for documents and images

Request a Demo @ https://mosaic.lntinfotech.com/

LTI (NSE: LTI, BSE: 540005) is a global technology consulting and digital solutions Company helping more than 420 clients succeed in a converging world. With operations in 32 countries, we go the extra mile for our clients and accelerate their digital transformation with LTI’s Mosaic platform enabling their mobile, social, analytics, IoT and cloud journeys. Founded in 1997 as a subsidiary of Larsen & Toubro Limited, our unique heritage gives us unrivaled real-world expertise to solve the most complex challenges of enterprises across all industries. Each day, our team of more than 30,000 LTItes enable our clients to improve the effectiveness of their business and technology operations, and deliver value to their customers, employees and shareholders. Find more at www.Lntinfotech.com or follow us at @LTI_Global

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