

AMPLEXOR
LIFE SCIENCES

2023
Be The Expert

EMPOWERING EFFICIENCY

Applying AI To eTMF

Presented by: Anthony Vigliotti

Applying AI to eTMF

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**AMPLEXOR - ADLIB
RELATIONSHIP**

An Introduction

02

ADLIB HERITAGE

Managing Unstructured
Data

03

APPLYING AI

Architecture & Rationale

04

COMPLEXITY OF TMF

Problem Definition

05

AI & TMF Demonstration

Scope, Method, Results

06

REGULATORY IMPACT

Projected Efficiencies

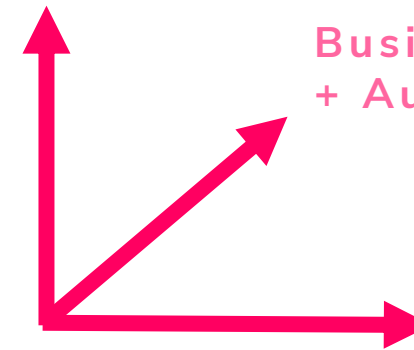
The Amplexor / Adlib Relationship

LONG TERM PARTNERSHIP DELIVERING SUCCESSFUL IMPLEMENTATIONS FOR THE LIFE SCIENCES INDUSTRY

Enabling “Readable – Searchable” Documents of Record From Unstructured Data at Scale to Manage Regulatory, Compliance & Audit Requirements



Rendering Fidelity



Business Rules + Automation

Interoperability

Business Outcomes For Document Heavy Processes

ARCHITECTURE & RATIONALE TO DELIVER STRUCTURED OUTCOMES



Clinical:
TMF



Quality
Management



Bio
Manufacturing



Regulatory:
eCTD, IDMP

Unstructured Data to Documents of Record

Documents of Record to Structured Data

Transform 2023

Document Rendering Platform

Native
Document
Ingestion

Rules for
creating
Documents of
Record

Document
Security &
Archival
Policies

Documents of
Record
Publishing

Document
Meta Data &
Lineage

Transform AI

Machine Learning Platform

Layout
Analysis &
OCR

Multi-Modal
ML Models

Critical Data
Elements

CDE
Provenance
(Auditability)

Human-in-
the-Loop

Trial Management By The Numbers

5-10

Trials Per CRA

UP TO
150

Sites Per Trial

! Site based documents need the most triage

**1000-
1500**

Documents Per Trial

! Email and correspondence is hardest to identify

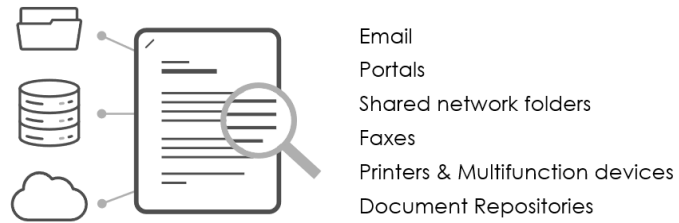
- Trial or Site level
- Multiple site level locations

Complexity Of TMF

THE CHALLENGE IS TO CLASSIFY TRIAL DOCUMENTS PER TMF SCHEMA ON A “CONTINUAL BASIS”

Challenge 1:

Site data comes from a variety of sources



Lack of an automated approach to capturing data

Challenge 2:

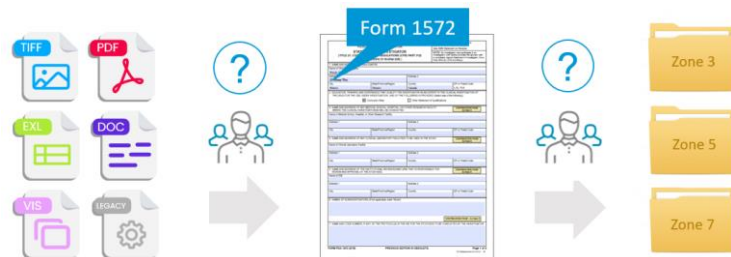
Clinical trial data is unstructured, voluminous and inconsistent



Lack of a standard format to simplify document processing

Challenge 3:

Classifying trial data into eTMF is manually intensive



Inability to categorize data with accuracy & speed

Challenge 4:

Extracting metadata from eTMF document types is difficult

Image showing a sample clinical trial form with an arrow pointing to the 'Name of Clinical Investigator' field, labeled 'Extract Critical Data Elements'. The form is Form 1572 (21 CFR 312.53(c)).

1. NAME AND ADDRESS OF INVESTIGATOR			
Name of Clinical Investigator Wendy Daniels			
Address 1 35 Albany Way		Address 2	
City Ottawa	State/Province/Region Ontario	Country Canada	ZIP or Postal Code L7L 7Y5

2. EDUCATION, TRAINING, AND EXPERIENCE THAT QUALIFY THE INVESTIGATOR AS AN EXPERT IN THE CLINICAL INVESTIGATION OF THE DRUG FOR THE USE UNDER INVESTIGATION. ONE OF THE FOLLOWING IS PROVIDED: (Select one of the following.)

Curriculum Vitae Other Statement of Qualifications

Inability to easily unlock data to automate trial process

PRODUCT DEMONSTRATION

Adlib's eTMF Autoclassification

Demonstration #1 – AI based Classification

Adlib eTMF Classification

Folder Setup



Demonstration #2 – Human in the Loop Validation

Adlib eTMF Classification

Submit Document for Classification



AI & eTMF: What We Learned

INCREASED VOLUMES OF DOCUMENTS CONTINUOUSLY IMPROVED THE ACCURACY OF AUTOCLASSIFICATION

DEPARTMENT OF HEALTH AND HUMAN SERVICES FOOD AND DRUG ADMINISTRATION		Form Approved OMB No. 0910-0014 Expiration Date: March 31, 2022 See OMB Statement of Revenue
STATEMENT OF INVESTIGATOR (TITLE 21, CODE OF FEDERAL REGULATIONS (CFR) PART 312) (See INSTRUCTIONS ON REVERSE SIDE.)		NOTE: No investigator may participate in an investigation until he/she provides the sponsor with a completed, signed Statement of Investigator. Form FDA 1572 (21 CFR 312.53(b)).
1. NAME AND ADDRESS OF INVESTIGATOR		
Name of Clinical Investigator Wendy Daniels		
Address 1 35 Albany Way		
Address 2		
City Ottawa	State/Province/Region Ontario	Country Canada
ZIP or Postal Code 1 L7L 7Y5		
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3. NAME AND ADDRESS OF ANY MEDICAL SCHOOL, HOSPITAL, OR OTHER RESEARCH FACILITY WHERE THE CLINICAL INVESTIGATIONS WILL BE CONDUCTED. CONTINUATION PAGE for Item 3		
Name of Medical School, Hospital, or Other Research Facility		
Address 1		
Address 2		
City	State/Province/Region	Country
ZIP or Postal Code		
4. NAME AND ADDRESS OF ANY CLINICAL LABORATORY FACILITIES TO BE USED IN THE STUDY. CONTINUATION PAGE for Item 4		
Name of Clinical Laboratory Facility		
Address 1		
Address 2		
City	State/Province/Region	Country
ZIP or Postal Code		
5. NAME AND ADDRESS OF THE INSTITUTIONAL REVIEW BOARD (IRB) THAT IS RESPONSIBLE FOR REVIEW AND APPROVAL OF THE STUDY(IES). CONTINUATION PAGE for Item 5		
Name of IRB		
Address 1		
Address 2		
City	State/Province/Region	Country
ZIP or Postal Code		
6. NAMES OF SUBINVESTIGATORS (if not applicable, enter "None")		
CONTINUATION PAGE - for Item 6		
7. NAME AND CODE NUMBER, IF ANY, OF THE PROTOCOL(S) IN THE IND FOR THE STUDY(IES) TO BE CONDUCTED BY THE INVESTIGATOR		

FORM FDA 1572 (3/18) PREVIOUS EDITION IS OBSOLETE. Page 1 of 2

Transform AI
Machine Learning
Platform

Zone 3

Zone 5

Zone 7

OUTCOMES:

- High Confidence Level: Files Classified
- Low Confidence Level: Files not Classified
- Enables Human in the loop efficiency

Business & Regulatory Impact

INTEGRATING ADLIB AI INTO A RIM PLATFORM

UP TO

75%

Increase in Clinical
Ops efficiency

UP TO

50%

Faster Regulatory
submission prep

UP TO

12 Months

Faster product
launch to market

Reduced 30-day manual report assembly to a 2-hour review

More than 1000% EFFICIENCY BOOST



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Anthony has 20+ years of experience in Business Workflow and Intelligent Document Processing segment with prior roles at Kofax, Nuance, Notable Solutions (NSi), and Xerox. Anthony brings a well-rounded set of experiences with solution-related roles in Product Management, Alliance and Partner Management, and Product Development. He holds a bachelor's degree in Mechanical Engineering and a Master's Degree in Information Technology, both from the Rochester Institute of Technology.