

BASICS OF LEGAL AI

A BigLegal Whitepaper



BigLegal

Business Legal Insight

<https://www.biglegal.com>

PURPOSE OF THIS PAPER

Getting Familiar With Legal AI

We know that you handle legal documents with the outmost care and want to understand how your documents are processed.

We know AI might seem to be something that makes newspaper headlines, and that is too esoteric or hard to implement for day-to-day use.

At BigLegal we recognise that every corporate legal process can benefit from the efficiencies of AI, it just takes a little understanding to see how.

The good news is it doesn't take a lot of time to understand the core concepts operating inside legal AI.

We'll present around three key concepts

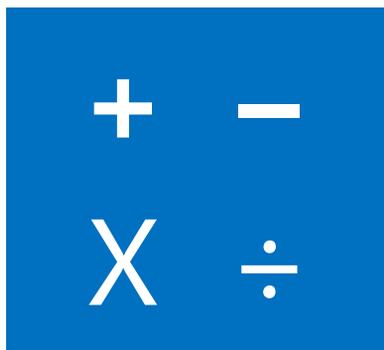
1 Mathematics of AI

2 How AI Reviews a Document

3 How AI is Trained

MATHEMATICS OF AI

Simple Underlying Mathematics



The mathematics of AI are complex versions of the math we all learned in high school. Perhaps you remember solving for multiple variables using multiple equations. In doing that you were using the basic linear programming at work in AI.

Large Scale Optimisations

AI's ability to understand human language comes from these mathematical processes being expanded to very large scale and being implemented in a layered approach.

The large scale enables AI to handle the richness of language and layering allows AI to recognise the types of relationships that occur in language, for example:

Learning Vocabulary

In learning a language, we associate words with similar concepts (e.g. legal and law) as we build vocabulary.

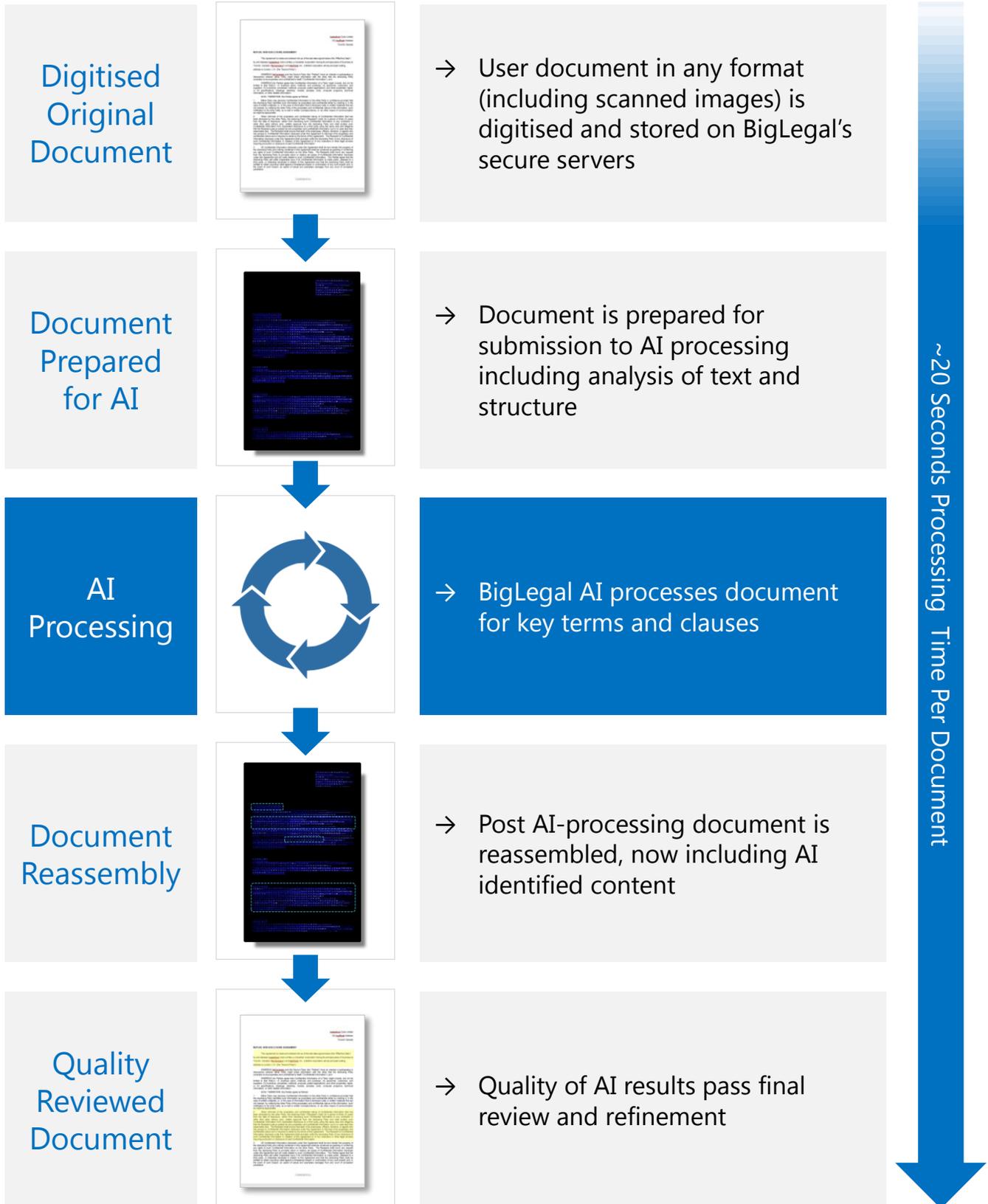
At the core of legal AI is a training process through which AI learns this similarity of words.

Interpreting Sentence Structure

In reading a sentence we take into consideration the order of words and the meaning which that imparts.

In AI, layering extracts meaning from word order and allows AI to impart meaning similarly to how a human reader does.

AI DOCUMENT REVIEW



HOW AI IS TRAINED

The Core Concept of AI Learning

AI models learn through an iterative process where they attempt to identify key terms and clauses and judge accuracy against terms and clauses identified by human review.

Through this iterative process AI models make literally millions of adjustments refining their approach. Training is complete when no further adjustments improve the AI's predictive results.

BigLegal Training Set



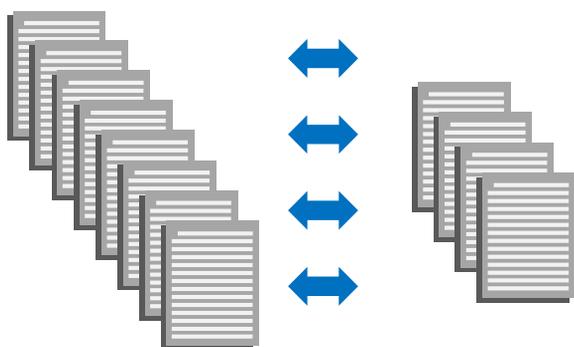
At the core of AI training is the document training set.

BigLegal's team has reviewed and tagged thousands of documents across contract types for key terms and clauses.

Split Testing

Training Set

Testing Set



After training, BigLegal's AI is tested against a new set of documents.

This is used to review quality of AI model training and set parameters for final review of AI results.