LRM PDF Risk Vector Analyser

Conceptual & Technical Measurement Manual

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1. Purpose of the Instrument

This system operationalises elements of the **Language Risk Model (LRM)** by converting qualitative linguistic manipulation patterns into **quantifiable risk vectors**.

Its aim is **not** to determine truth or legal correctness, but to detect **structural linguistic risk signals** commonly associated with:

- Embedded verdicting
- Authority substitution
- Burden displacement
- Premature closure
- Interest concealment

These signals are especially prevalent in **legal correspondence, institutional letters, and adversarial communications**.

The output is a **comparative risk profile**, not a diagnosis.

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2. Unit of Analysis

Primary Unit: Sentence

Each PDF is decomposed into **sentences**, because:

- Manipulative language operates locally (sentence-level)
- Risk is often introduced incrementally
- Aggregation preserves signal without exaggeration

Every sentence is independently evaluated and then **aggregated at document level**.

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3. Processing Pipeline (Conceptual)

1. **PDF → Text**

2. **Text → Sentences**
3. **Sentence → Feature Scores**
4. **Sentence Scores → Document Risk Vector**
5. **Multiple Documents → Normalised Risk Matrix**

Each step is deterministic and auditable.

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4. The Four Risk Dimensions

Each dimension corresponds to a **distinct LRM risk category**.

4.1 Embedded Default / Verdicting

Variable: embedded_default

What it measures
The extent to which a sentence **pre-loads a conclusion** as if it were already established fact.

Linguistic indicators
- Categorical verbs: *is, are*
- Absolutist qualifiers: *always, never, obvious, clearly*
- Discounting language: *mere, just, only, so-called*

Theoretical basis
This maps to **pre-emptive framing**, where disagreement is structurally discouraged by embedding the verdict *inside* the description.

Measurement logic
- +1 if categorical structure + absolutist language appears
- +1 for each discount marker detected

Interpretation
- **0.0** → Neutral description
- **0.5–1.0** → Mild verdicting pressure
- **>1.0** → Repeated or layered embedded defaults

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4.2 Burden Shift / Authority Substitution

Variable: burden_shift

What it measures
Language that **relocates responsibility** or substitutes argument with asserted authority.

Linguistic indicators
- Modal impositions: *must, required to*
- Conditional gating: *until you*
- Authority claims: *clearly, beyond doubt, self-evident*

Theoretical basis
LRM identifies this as **procedural dominance**, where compliance is demanded without reciprocal justification.

Measurement logic
- +1 for obligation language
- +2 for explicit termination dependency
- +1 per authority marker

Interpretation
- **0.0** → No burden manipulation
- **1.0–2.0** → Procedural pressure
- **>2.0** → Coercive or authoritarian structure

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4.3 Deflection / Premature Closure

Variable: deflection

What it measures
Attempts to **terminate engagement** without addressing substance.

Linguistic indicators
- Closure phrases: *this is final, no further discussion*
- Dismissive reframing: *ignored the pertinent issues*

Theoretical basis
This reflects **interaction foreclosure** — a classic control mechanism in adversarial texts.

Measurement logic

- +1 per closure marker
- +2 for explicit dismissal of engagement

Interpretation

- **0.0** → Open engagement
- **1.0** → Soft closure
- **≥2.0** → Hard refusal / stonewalling

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4.4 Interest Concealment

Variable: interest_concealment

What it measures
Language that **normalises or obscures self-interest**, liability, or commercial exposure.

Linguistic indicators

- Liability disclaimers
- Fee justifications
- Faux-neutral phrasing around commercial outcomes

Special heuristic
Empathy language co-occurring with commercial content (e.g., "we wish you well" + "invoice") increases risk.

Theoretical basis
LRM treats this as **motivational opacity** — presenting interest-laden positions as neutral or inevitable.

Interpretation

- **0.0** → Transparent interest
- **1.0** → Standard disclaimers
- **≥2.0** → Active concealment

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5. Document-Level Risk Vector

For each document, the system computes:

mean(feature score per sentence)

```text
mean(feature score per sentence)
```

This avoids:

- Length bias
- Emotional inflation
- Over-penalising verbose documents

Example Output

```code
embedded_default         0.83
burden_shift             1.25
deflection               0.42
interest_concealment     0.67
```

This means:

- Verdicting pressure present
- Strong procedural control
- Some engagement allowed
- Moderate interest masking

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6. Corpus Normalisation (Z-Scores)

When multiple PDFs are analysed together, raw scores are converted into **z-scores**:

```text
(value – corpus mean) / standard deviation
```

Why this matters

- Reveals **outliers**
- Enables comparative analysis
- Prevents absolute-score fallacy

Interpretation

- **0.0** → Average for corpus
- **+1.0** → 1 standard deviation above norm
- **+2.0** → Structurally extreme document

This is particularly powerful in **legal correspondence chains**.

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7. What the Tool Does Not Claim

Explicit non-claims (important):

- It Does not assess legal correctness
- It Does not infer intent
- It Does not label abuse or misconduct
- It Does not replace human judgment

It **flags structural linguistic risk**, nothing more — nothing less.

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8. Intended Use Contexts

This instrument is suitable for:

- Legal correspondence analysis
- Institutional power imbalance review
- Comparative document auditing
- Forensic linguistic support material
- Research into manipulative framing

It is **not** intended as evidence on its own, but as **analytical scaffolding**.

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9. Conceptual Summary

In simple terms:

> The system measures **how much a document tells you what to think, what to do, and when to stop talking — while pretending not to.**
>
> That's the LRM in operational form.