The Domain to be Encoded

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Background

Connectionist	**Symbolic**
Emerges from context of large training data	Explicit definitions of concepts and procedures
Statistical computations	Logical associations
LLMs, Generative AI	Rules-based systems
Control - Training data (control variables), fine tuning of model	Control - Visibility of the encoding, formalized validation and testing

Latest Chapter Plan

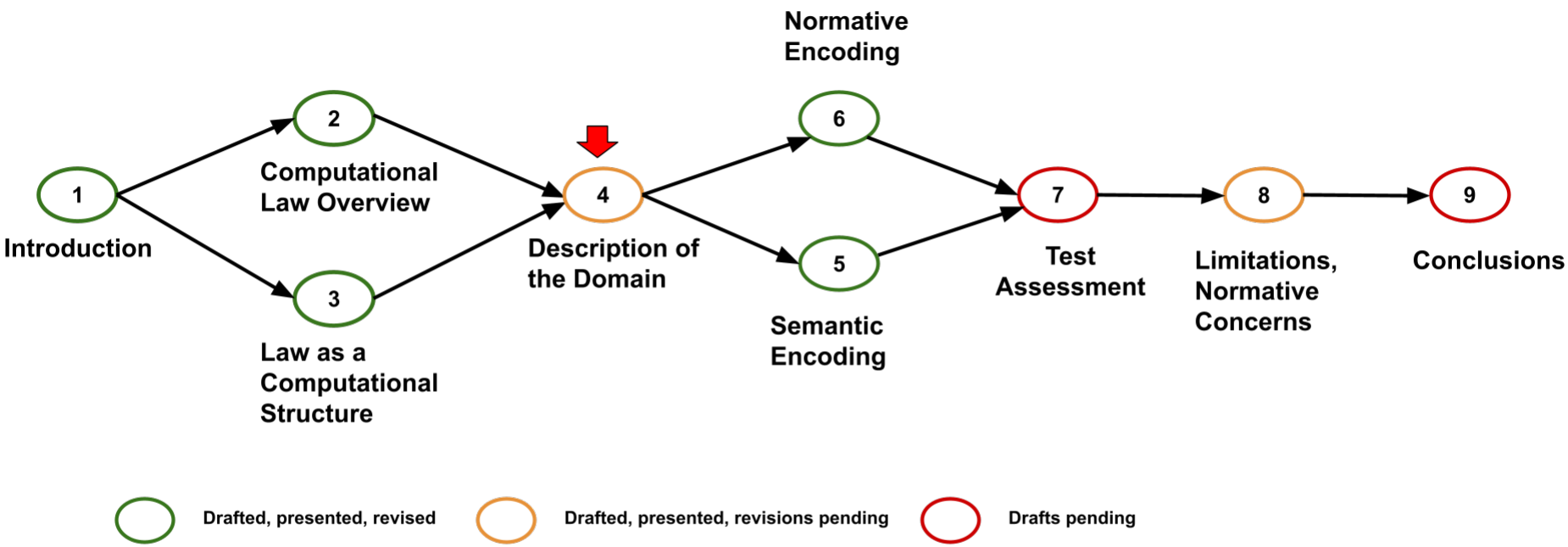

Figure: Chapter Plan, July 2026

Methodology

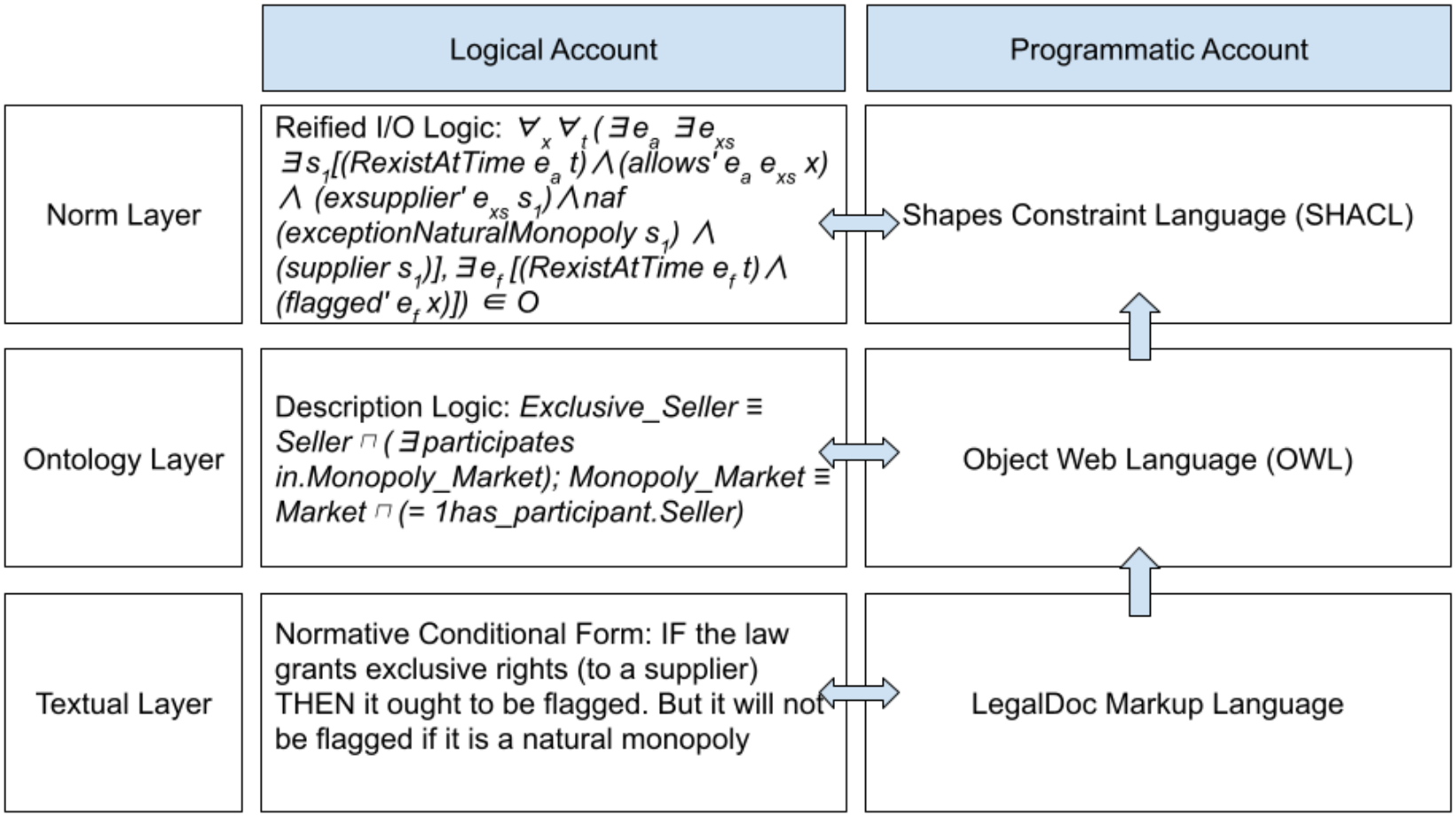

Figure: Layered Encodings (Robaldo, 2020)

Sources of the Domain

Domain - Subject area, field of knowledge to be modeled (semantics, scoping)

- OECD - Competition Impact Analysis (CIA) Guidelines, Workgroup on Barriers to Entry;
- EU Competition Law;
- Philippine Competition Commission - Previous CIA exercises;

Mapping to the Domain

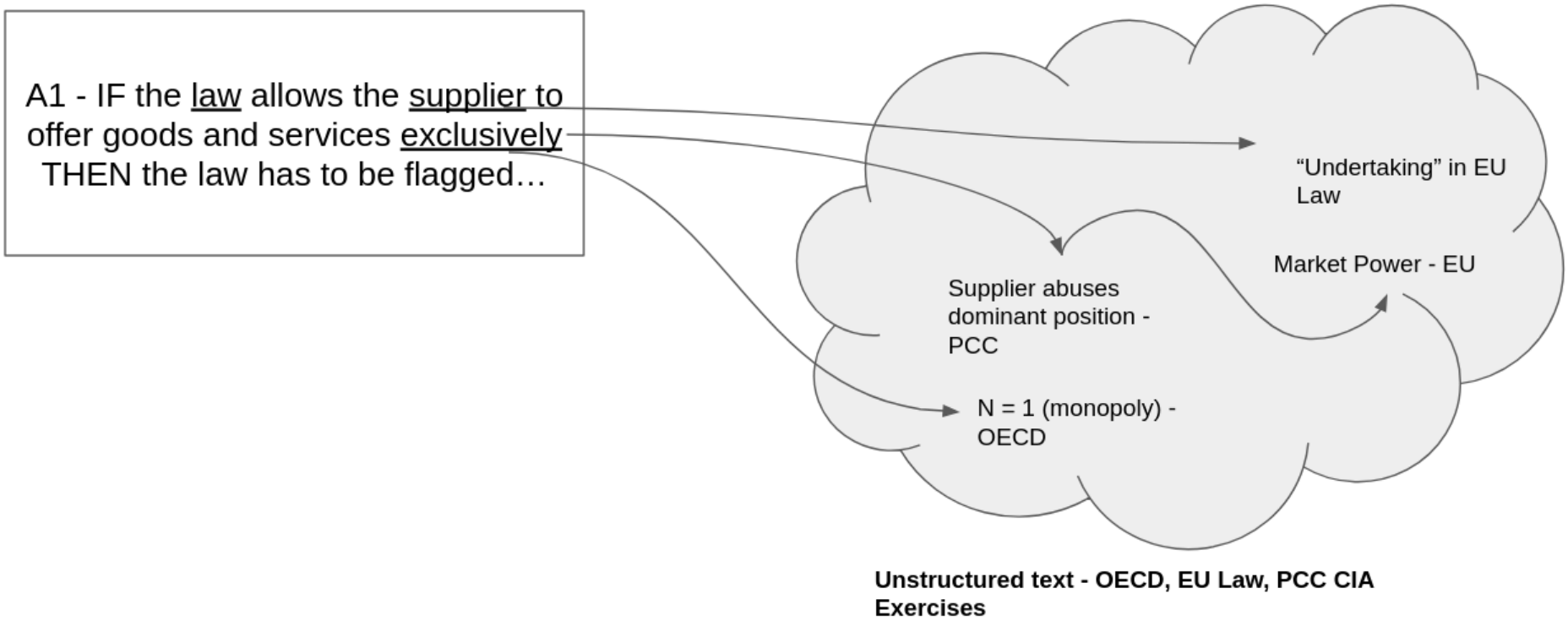

Figure: Mapping the Norm to the Domain

A2 and A5

- A2 - test turns on presence or absence of prior PERMISSION, usually reflected in a document;
- A5 - whether or not prior authorization is required for movement of goods of services from one geographic area to another. States define geographic areas and jurisdictions;

A3 - Limitation

- Need to model the entirety of strategic space;
  - Model as simplified game?
- Dominance of incumbents a limitation;
- Or - any significant post-entry, pre-exit costs?
  - What is significant?

A4 - Barriers to entry and exit

- Well documented debate on barriers, definition;
- Some established signals:
  - Sunk costs, including entry costs;
  - Structural barriers;
  - Strategic behavior (Dominance of incumbents)

Issues

Resolving conceptual overlaps -

- Exclusivity is also a barrier (OECD)
- Abuse of dominance is a barrier (PCC)
- A license requirement can lead to exclusivity
- A license can also be an entry cost - barrier

Issues

Computational encodings may not be isomorphic with the OECD threshold tests

- A1 - Two alternative tests
- A2 and A5 - Isomorphic
- A3 and A4 - A shared library of related test for costs, certain behaviors

Next Steps

- Programming and testing for a small "toy" problem
- Test implementation with existing neural net (?)
- Draft Conclusion
- Consultations and revisions

End

Thank you!

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