

Harmonizing Al Data Governance: Profiling ISO/IEC 5259 to Map to the Requirements of the EU AI Act





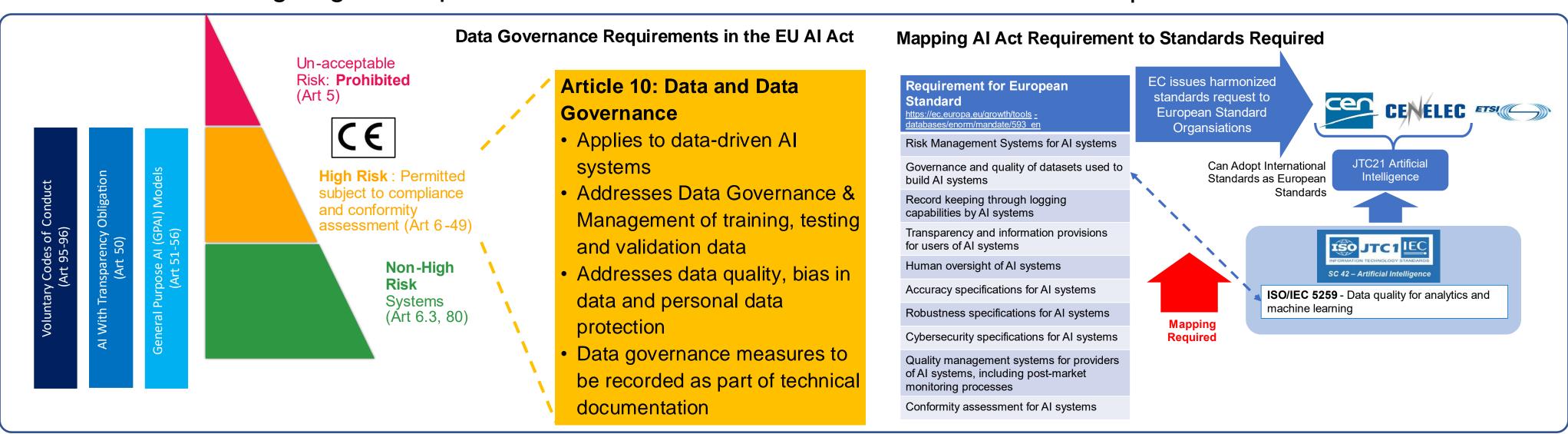
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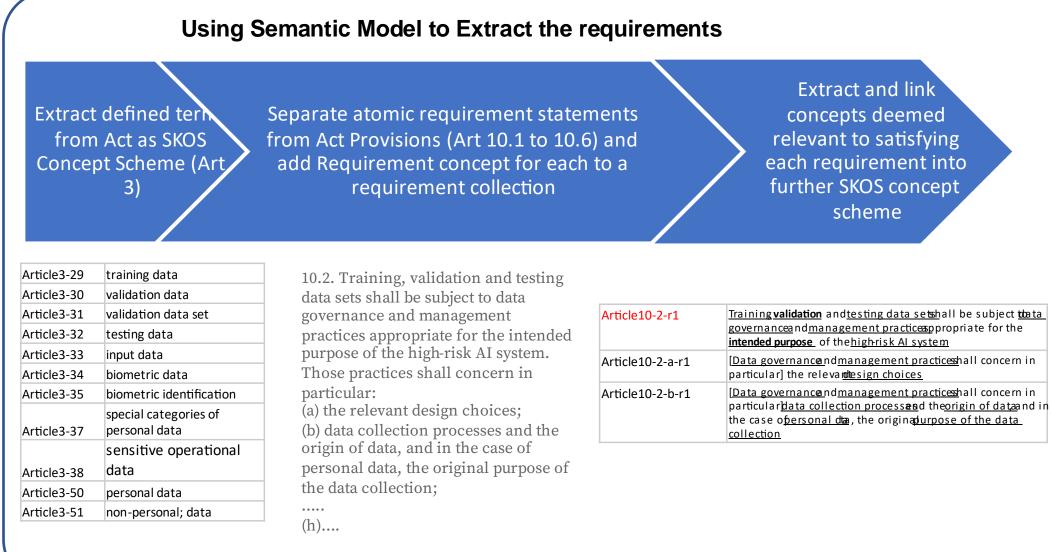
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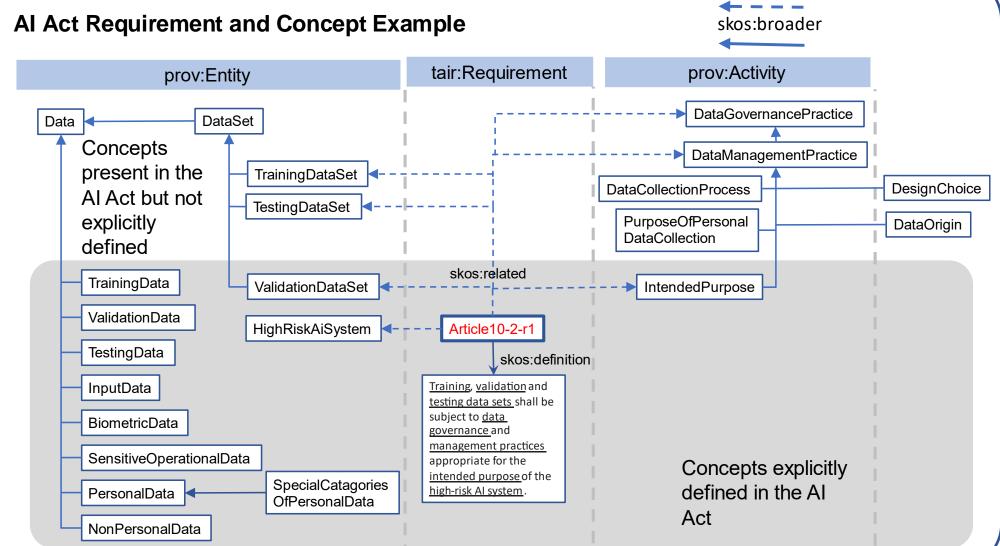
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Satisfying requirements of the Al Act implies agreement on a large number of concept and requirement mappings:

- Art 10 has 22 atomic requirement with 74 undefined terms
- ISO/IEC 5259 Part 3 has 135 composite requirements, with poor alignment of terms to the Act
- Direct alignment between specific Act and standard requirements are rare

A qualified mapping class is needed therefore to manage evolving mapping links between objects representing requirements and the concepts they contain.

- Modelled on qualified properties from the W3C Provenance Ontology
- Allows different requirement mapping types to be represented
- Allows conditional or provisional mappings to the represented, e.g. deferring mapping to a specific learning or consensus building activity – e.g. to different levels of learning loops

Qualified Semantic Mappings for Communication Layered learning loop arenas for mapping



Summary

The AI Act and AI standards result from different consensus forming processes which are challenging to map line by line

Extracting terms, concepts and requirements into knowledge graphs enables mapping links

Different standards and European AI Board and Office guidance and Implementing Acts present moving targets for mappings

Need dynamic mapping between legal requirement and conformance requirements in technical standards to manage incremental learning

To Know More

Semantic Model Research for Regulatory Compliance

https://regtech.adaptcentre.ie/



