Discoverability of Regulatory Rulebooks

Use of W3C Semantic Web standards to publish US and EU regulatory rulebooks

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Model-Driven Machine Executable Regulation

- Increasing interest from regulators and regulated firms
- Main beneficiaries are regulated firms, investors, and regulators
- Target state of publishing executable regulation
- Initial step of making content of rulebooks and regulatory communications discoverable
Discoverability of Data on the Web

- W3C Linked Data standards such as RDF, RDFS, OWL and SPARQL
- Existing metadata and thesaurus standards such as DC, SKOS
- Newer ones to help with discoverability of datasets such as CSVW and DCAT
5-Star Linked Open Data
HM Land Registry (UK)

W3C SPARQL to retrieve the data
HM Land Registry (UK)

URIs to identify transactions, so others can link to them

Link to SKOS Concept to identify category
HM Land Registry (UK)
Regulatory Rulebooks on the Web

- Existing metadata and thesaurus standards such as DC, SKOS
- Existing legislation ontologies such as ELI, schema.org
- Existing schemas such as DLXS
5-Star Linked Regulatory Rulebooks

- Reuse the original 5-star ranking
- Axis of granularity (none, document, section, paragraph, sub-paragraph)
- Axis of semantic richness (none, glossary, taxonomy, thesaurus, ontology)
ESMA (EU Agency)

EUR-Lex is published by the Publication office of the EU

URIs to identify the regulation
ESMA (EU Agency)

Links to SKOS Concepts that this regulation is about

Use ELI ontology
ESMA (EU Agency)
CFTC (US Federal Agency)

Published daily by the Office of National Register
CFTC (US Federal Agency)

URIs to identify documents

Also see API and schema documentation
https://www.federalregister.gov/reader-aids/developer-resources
CFTC (US Federal Agency)

Published annually by the Government Publication Office
URIs don’t look as stable, but they do identify elements of the document down to subsection level

Definitions are embedded with no unique identifiers or links to thesaurus
CFTC (US Federal Agency)
FINRA (US Self-Regulatory Organization)

No links to thesaurus for concept definitions

URIs for individual documents, also available in the form of https://www.finra.org/finramanual/rules/r2111/
FINRA (US Self-Regulatory Organization)
Tool to Drive Change
Q&A

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