

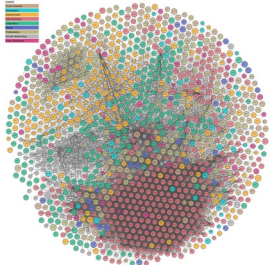
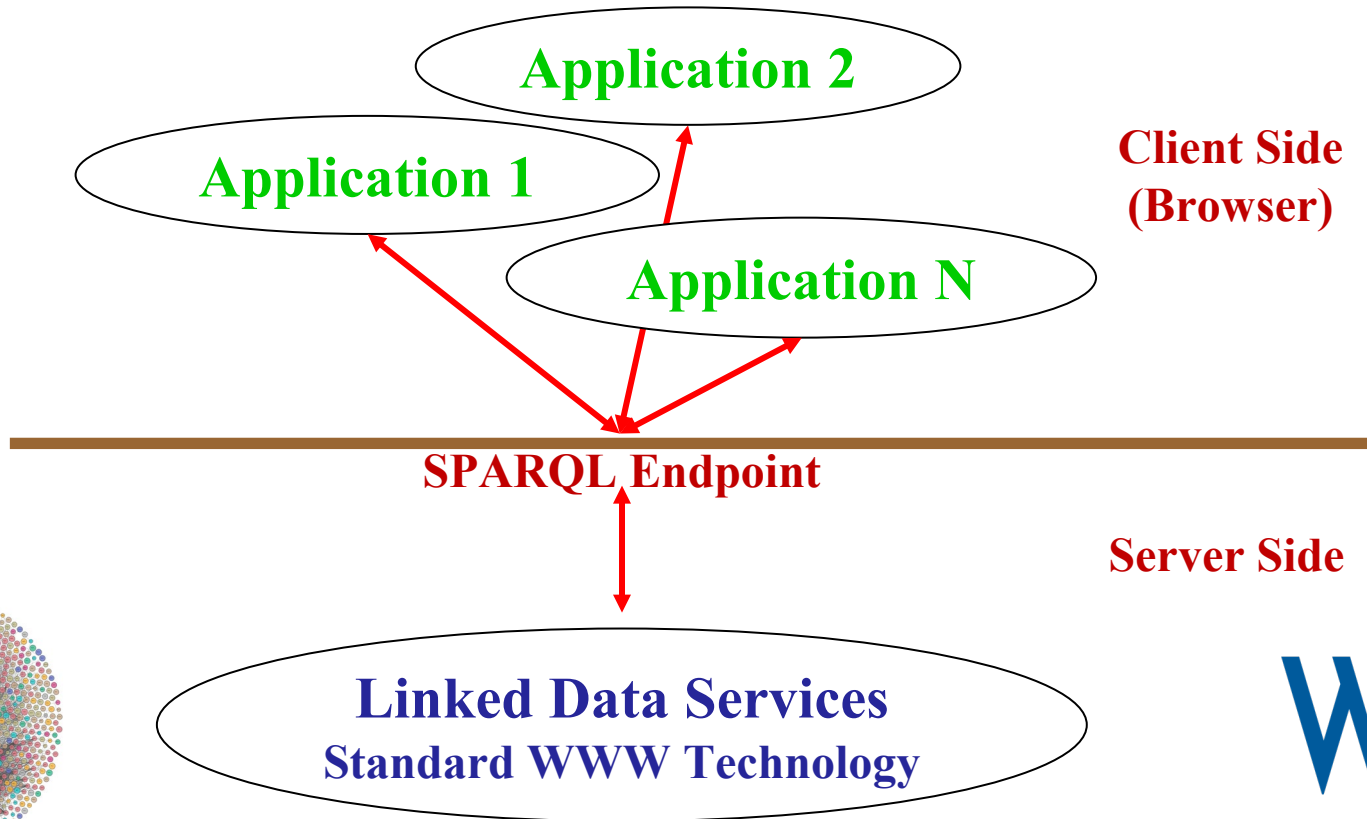


Lakisammon datapalvelu ja sen käyttö

Jouni Tuominen

Suomen lainsäädäntö ja oikeustapaukset semanttisessa webissä, 8.3.2023

Linked Data application ecosystem



Datapalvelu Linked Data Finland

<http://l.df.fi>



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Linked Data Finland

Living Laboratory Data Service for the Semantic Web

This site is the Living Laboratory of the [Linked Data Finland](#) research initiative, conducted by the [Semantic Computing Research Group](#) at [Aalto University](#) in collaboration with University of Helsinki and a large consortium of Finnish public organizations and companies.

Our goal is to make life easier for both publishers as well as consumers of structured data on the Web. We base our work on the [Linked Data](#) paradigm and stack of standards, which combines an expressive, semantic data model ([RDF](#)) with standardized access mechanisms ([SPARQL](#) and [live HTTP URIs](#)).

5-star Linked Data

The baseline of our work is the [5-star Linked Data model](#), proposed [originally](#) by Tim Berners-Lee.

- ★ Make data available on the Web in whatever format.
- ★★ Make data available as structured data (e.g., Excel instead of an image scan of a table).
- ★★★ Use non-proprietary formats (e.g., CSV instead of Excel format).
- ★★★★ Use URIs to denote things, so that people can point at your data.
- ★★★★★ Link your data to other data to provide context.

7-star Linked Data Service

However, in our opinion, providing 5-star Linked Data is just the beginning. To actually make use of the datasets, consumers need more support in getting to know and access them, as well as a better grasp of their quality and provenance. To this end, we extend the model with two additional stars:

- ★★★★★ Provide your data with a schema and documentation so that people can *understand and re-use* your data easily.
- ★★★★★★ Validate your data and denote its provenance so that people can *trust the quality* of your data.

This added support should come with as little extra work as possible to the data publisher. Our hypothesis is that a lot of this can be done automatically, basing on the Linked Data core. A data publisher needs only to provide

7 tähden datan julkaisumalli

Goals: enhance re-usability and data quality

7-star Linked Data Service

However, in our opinion, providing 5-star Linked Data is just the beginning. To actually make use of the datasets, consumers need more support in getting to know and access them, as well as a better grasp of their quality and provenance. To this end, we extend the model with two additional stars:

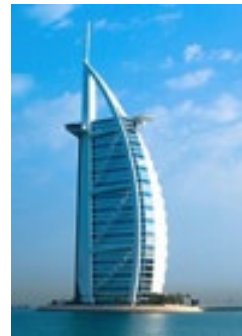


Provide your data with a schema and documentation so that people can *understand and re-use* your data easily.



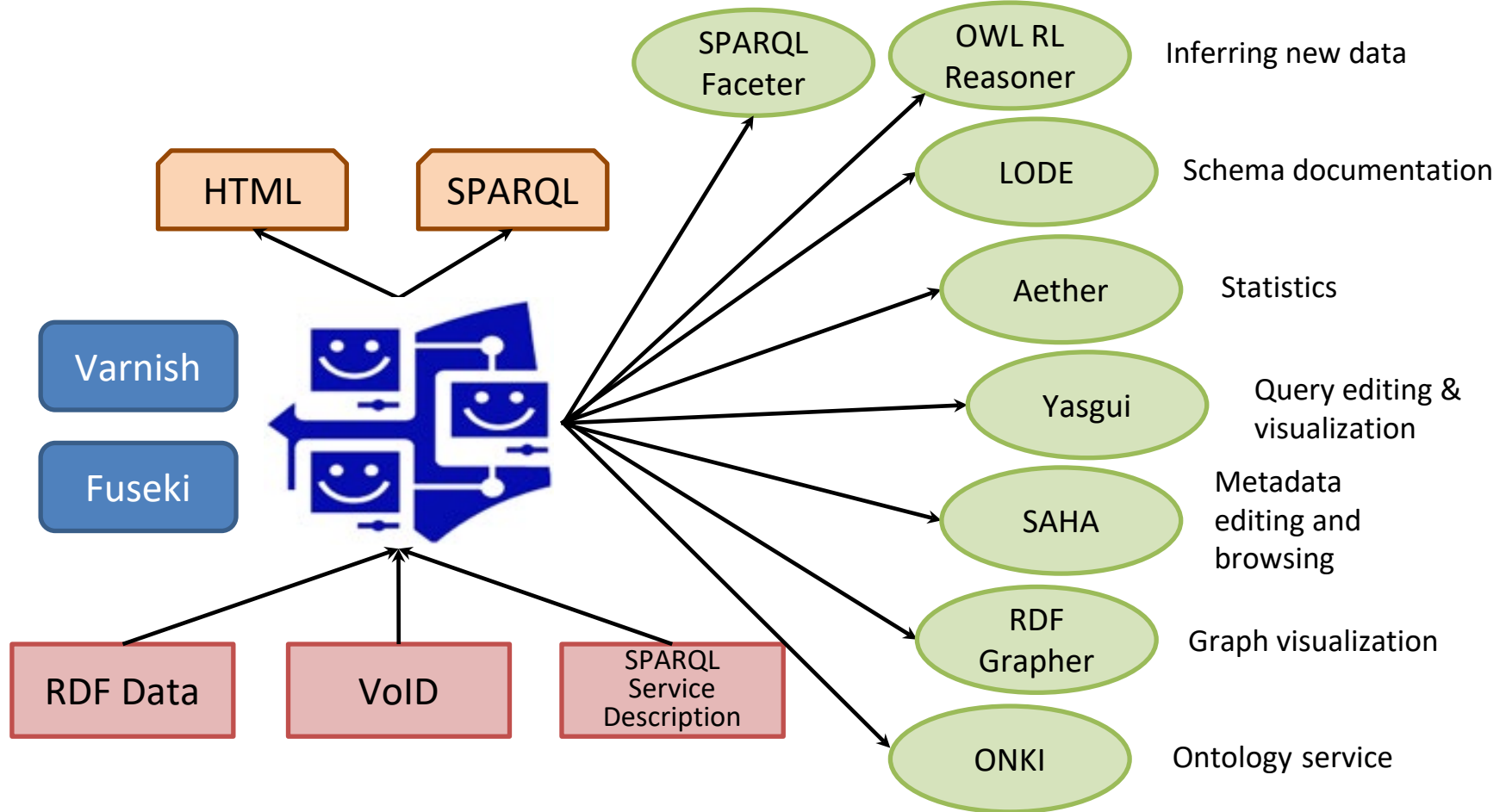
Validate your data and denote its provenance so that people can *trust the quality* of your data.

This added support should come with as little extra work as possible to the data publisher. Our hypothesis is that a lot of this can be done automatically, basing on the Linked Data core. A data publisher needs only to provide their data in the RDF format, and the LDF.fi portal will do the rest automatically. See the [overview paper](#) (in ESWC 2014 Proceedings, Springer-Verlag) for some more details about the underlying ideas.



Burj Al Arab

LDF.fi – Linked Data publication platform



Lakisampo LDF.fi:ssä

← → ↻ 🏠 ldf.fi/dataset/lawsampo



LawSampo

Lakisampo

Linked Data Finland

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LawSampo Knowledge Graph contains Finnish consolidated legislation and case law as Linked Open Data.

To test and demonstrate its usefulness, this Knowledge Graph is in use in the semantic portal [LawSampo](#), explained in more detail in the [project page](#).

The Knowledge Graph is published on [Zenodo](#) with a version history.

Example SPARQL queries for the data:

- [Judgments by the Supreme Court by year](#)
- [Statutes related to nuclear energy](#)

Data Download

The data can be downloaded at <https://zenodo.org/record/7696672/files/lawsampo-data-v1.0.0.zip>.

License

[CC BY 4.0](#) 

Licensor: [Edita Publishing Oy](#), [Oikeusministeriö](#), [Semanttisen laskennan tutkimusryhmä \(SeCo\)](#)

See possible graph-specific licenses below.

Detailed Dataset Contents

Legislation and Case Law Metadata (URI: <http://ldf.fi/lawsampo/>)

Licensor: [Edita Publishing Oy](#), [Oikeusministeriö](#), [Semanttisen laskennan tutkimusryhmä \(SeCo\)](#)

([Browse data](#) / [Download](#))

RDF metadata of Finnish consolidated legislation and case law

Example resource URI: http://ldf.fi/lawsampo/statute_eli_sd_1994_258

LawSampo annotations (URI: <http://ldf.fi/lawsampo/annotations/>)

Licensor: [Edita Publishing Oy](#), [Oikeusministeriö](#), [Semanttisen laskennan tutkimusryhmä \(SeCo\)](#)

([Browse data](#) / [Download](#))

LawSampo annotations is a collection of annotated statute and court decision documents (in HTML format) and their referenced terms with descriptions.

Example resource URI: http://ldf.fi/lawsampo/expression_ecli_kho_1987_A100_fin

Schemas Used

Following schemas (vocabularies) are used in the datasets above:

- Schema: lawsampo: [documentation](#), [download](#)
- Schema: <http://www.w3.org/2004/02/skos/core#>
- Schema: <http://data.europa.eu/eli/ontology#>
- Schema: <http://purl.org/dc/terms/>

URI Data Services

Give the URI without brackets (<>) and without encoding.

Human Use Case 1: Viewing the RDF Description of a URI

View the RDF description of a URI using the template: <http://ldf.fi/SERVICE/data?uri=URI>

URI:

Format:

View result in browser (accept header = text/plain)



Linkitetyn datan selaus (SAHA)

SAHA3 | lawsampo - search

http://ldf.fi/lawsampo/statute_eli_sd_1994_258

Statute: Laki Talaskankaan luonnonsuojelualueesta 258/1994

[edit]

http://www.w3.org/1999/02/22-rdf-syntax-ns#type	<u>Statute</u>
Preferred label	Laki Talaskankaan luonnonsuojelualueesta 258/1994
Section	<u>Alueen liittäminen luonnonsuojelualueeseen, Haltuunotto-oikeus, Luonnonsuojelualueen perustamistarkoitus, Luonnonsuojelualueen sijainti ja rajat, Tarkemmat säännökset, Voimaantulo</u>
Semantic Finlex identifier	258/1994
Semantic Finlex statute	http://data.finlex.fi/eli/sd/1994/258
Semantic Finlex statute version	http://data.finlex.fi/eli/sd/1994/258/alkup
Situation category	<u>Asuminen ja rakentaminen, Muuttaminen ja matkustaminen, Oikeudet ja velvollisuudet</u>
Statute date	1994-04-08
Subject	<u>hoito, kaavoitus, käyttö, lainsäädäntö, luonnon monimuotoisuus, luonnonsuojelu, luonnonsuojelualueet, maankäyttö, metsät, Natura 2000, Pohjois-Savo, Sonkajärvi (kunta), suojelualueet, Talaskankaan luonnonsuojelualue, Vuolijoki</u>
Säädösmuutosrekisteri URL	https://www.finlex.fi/fi/laki/smur/1994/19940258
Term reference	<u>Alue, asetus, Eduskunta, eläin, hankinta, Kainuu, kasvi, kiinteistö, kiinteistörekisteri, kunta, Laki, Luonnonsuojelu, Luonnonsuojelualue, luonto, metsä, metsästys, Ministeri, määräys, oikeus, omistus, opetus, pinta-ala, Presidentti, päätös, raja, saanto, suojelu, suojelualue, Säännös, täytäntöönpano, valtio, vartija, viranomainen, Voimaantulo</u>

Text	<p>Laki Talaskankaan luonnonsuojelualueesta</p> <p>Eduskunnan päätöksen mukaisesti säädetään:</p> <p>1 § Luonnonsuojelualueen perustamistarkoitus Pohjois-Savon ja Kainuun rajoilla lähes luonnontilaisena ja erämaisena säilyneen metsä-, suo- ja pienvesistöluonnon suojelemiseksi ja uhanalaisten eliöiden elinpaikkojen säilyttämiseksi osana maamme luonnon monimuotoisuuden suojelua perustetaan valtion omistamille alueille luonnonsuojelulain (71/23) mukaisesti erityiseksi suojelualueeksi Talaskankaan</p>
-------------	--

```
<http://ldf.fi/lawsampo/statute_eli_sd_1994_258> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://ldf.fi/schema/lawsampo/Statute> .
<http://ldf.fi/lawsampo/statute_eli_sd_1994_258> <http://data.europa.eu/eli/ontology#type_document> <http://data.finlex.fi/schema/sfl/Act> .
<http://ldf.fi/lawsampo/statute_eli_sd_1994_258> <http://ldf.fi/schema/lawsampo/finlex_url> <https://www.finlex.fi/fi/laki/alkup/1994/19940258> .
<http://ldf.fi/lawsampo/statute_eli_sd_1994_258> <http://ldf.fi/schema/lawsampo/sf_identifier> "258/1994" .
<http://ldf.fi/lawsampo/statute_eli_sd_1994_258> <http://ldf.fi/schema/lawsampo/sf_statute> <http://data.finlex.fi/eli/sd/1994/258> .
<http://ldf.fi/lawsampo/statute_eli_sd_1994_258> <http://ldf.fi/schema/lawsampo/sf_statute_version> <http://data.finlex.fi/eli/sd/1994/258/alkup> .
<http://ldf.fi/lawsampo/statute_eli_sd_1994_258> <http://ldf.fi/schema/lawsampo/smur_url> <https://www.finlex.fi/fi/laki/smur/1994/19940258> .
<http://ldf.fi/lawsampo/statute_eli_sd_1994_258> <http://ldf.fi/schema/lawsampo/statute_date> "1994-04-08"^^<http://www.w3.org/2001/XMLSchema#date> .
<http://ldf.fi/lawsampo/statute_eli_sd_1994_258> <http://ldf.fi/schema/lawsampo/timespan> <http://ldf.fi/lawsampo/1994> .
<http://ldf.fi/lawsampo/statute_eli_sd_1994_258> <http://www.w3.org/2004/02/skos/core#prefLabel> "Laki Talaskankaan luonnonsuojelualueesta 258/1994"@fi |
<http://ldf.fi/lawsampo/statute_eli_sd_1994_258> <http://ldf.fi/schema/lawsampo/section> <http://ldf.fi/lawsampo/section_eli_sd_1994_258_pykala_1_alkup> .
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<http://ldf.fi/lawsampo/statute_eli_sd_1994_258> <http://ldf.fi/schema/lawsampo/section> <http://ldf.fi/lawsampo/section_eli_sd_1994_258_pykala_5_alkup> .
<http://ldf.fi/lawsampo/statute_eli_sd_1994_258> <http://ldf.fi/schema/lawsampo/section> <http://ldf.fi/lawsampo/section_eli_sd_1994_258_pykala_6_alkup> .
```

SPARQL-kyselyt

- Rikas ja monipuolinen tapa tehdä kyselyitä dataan
- Lakisampo-portaali perustuu SPARQL:ään (avoin lähdekoodi GitHub-repositoriossa)



Lataa koko aineisto linkitettyinä datana

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March 8, 2023 Dataset Open Access

LawSampo Knowledge Graph

Koho, Mikko; Tamper, Minna; Leal, Rafael; Kesäniemi, Joonas; Tuominen, Jouni; Hyvönen, Eero

The LawSampo Knowledge Graph contains Finnish consolidated legislation and case law as Linked Open Data.

This dataset is available on a public SPARQL endpoint (<http://ldf.fi/lawsampo/sparql>).

To test and demonstrate its usefulness, this Knowledge Graph is in use in the semantic portal LawSampo, explained in more detail in the [project page](#).

See the dataset page on LDF.fi for more details.

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Keyword(s): [legislation data](#) [case law data](#) [linked data](#) [digital humanities](#) [RDF](#) [Semantic Web](#)
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Files (613.0 MB)

Name	Size	
lawsampo-data-v1.0.0.zip	613.0 MB	Preview Download

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[Timespan](#)

EU legal act^c

[back to ToC or Class ToC](#)

IRI: <http://df.fi/schema/lawsampo/EULegalAct>

is in domain of

[Eurovoc keyword](#)^{op}, [Eurovoc keyword label](#)^{dp}

Expression^c

[back to ToC or Class ToC](#)

IRI: <http://df.fi/schema/lawsampo/Expression>

is in domain of

[Annotated HTML](#)^{dp}, [HTML](#)^{dp}, [Realizes](#)^{op}, [Text](#)^{dp}, [XML](#)^{dp}

is in range of

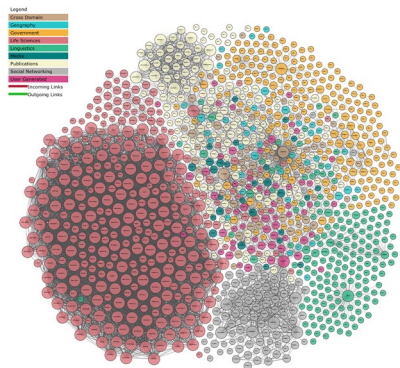
[Is realized by](#)^{op}

Lakisammon datapalvelu käytettävissä!



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<http://ldf.fi/dataset/lawsampo>



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