



Aalto University  
School of Science  
Department of Computer Science



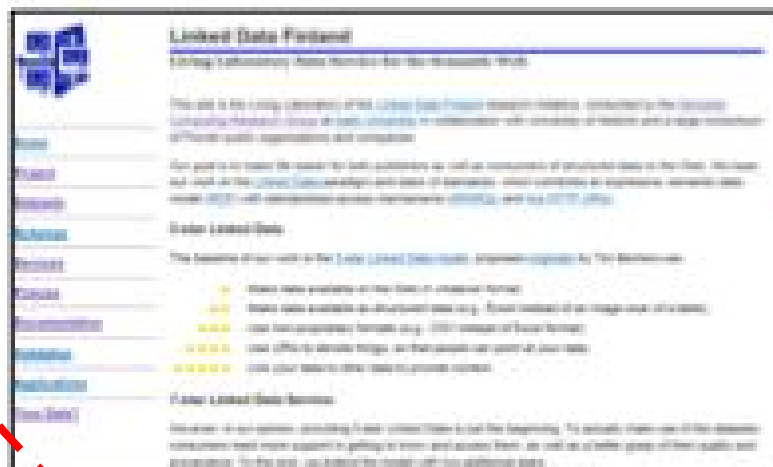
# Sotasammon datapalvelu ja sen käyttö

Sotasampo-julkistustilaisuus 27.11.2015

Jouni Tuominen

### 3. Prototype: two components

**Data service for Linked Open Data**  
<http://ldf.fi>



**Applications based on the service**  
<http://sotasampo.fi>



# Sotasammon avoin datajulkaisu

## <http://www.lfd.fi/dataset/warsa>

- Aineistot täydentävät toisiaan
- “Enemmän kuin osiensa summa”
- Avoin, koneluettava muoto
- Sotampo.fi-portaalin sovellukset perustuvat tähän datapalveluun

# LDF.fi – palvelut

- 5 tähden linkitetyn datan palvelut

+

- Dokumentaatio
- Validointi
- Visualisointi
- Datat kuratointi
- ...

# “7 tähden” linkitetty data

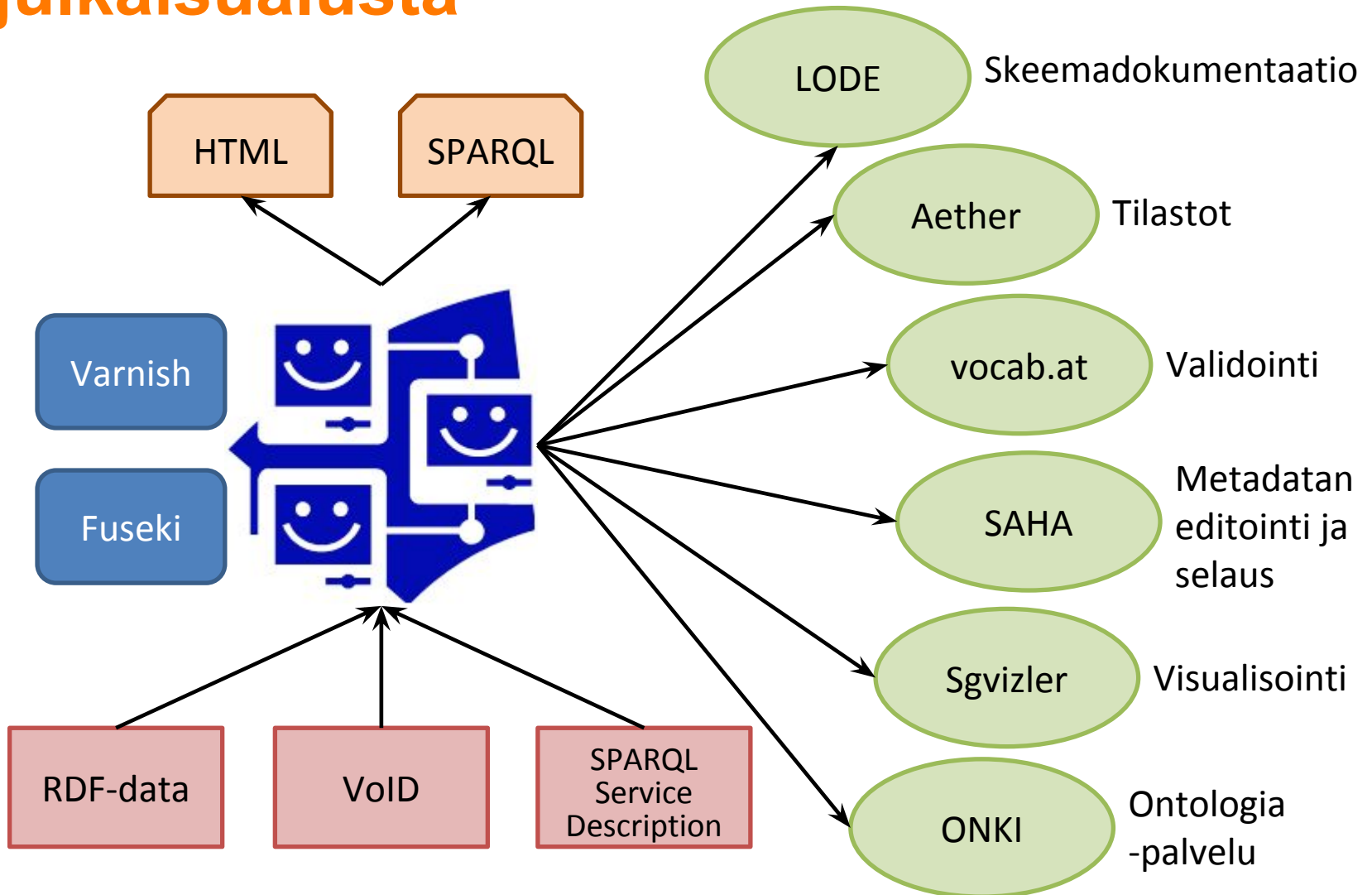


Provide your data with a schema and documentation so that people can *understand and re-use* your data easily.



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

# LDF.fi – yleinen linkitetyn datan julkaisualue

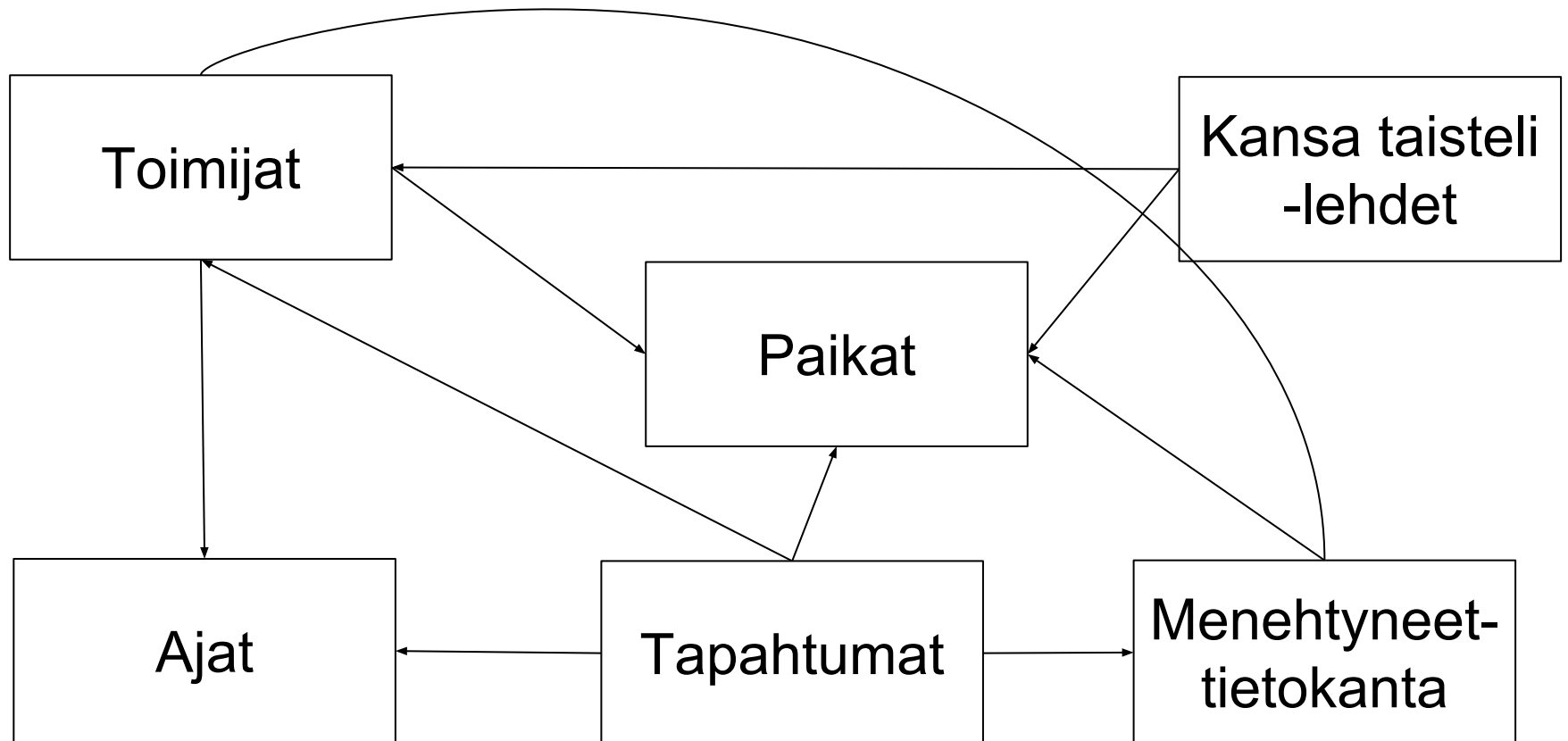


# Sotasammon aineistot

<b>Aineisto</b>	<b>Koko (kolmikoita)</b>
Menehtyneet	2 365 564
Valokuvat	1 535 856
Toimijat	734 152
Karjalan paikat	159 898
Sotapäiväkirjat	64 538
Kansa taisteli	62 942
Tapahtumat	10 912
Ajat	6789
Kunnat	5895

<http://yasgui.org/short/EyhmtlxVI>

# Aineistojen linkitykset





# Aineistojen väliset linkitykset

Lähdeaineisto	Kohdeaineisto	Linkkien määrä
Tapahtumat	Ajat	1684
	Henkilöt	784
	Joukko-osastot	764
	Karjalan paikat	584
	Kunnat	427
	Menehtyneet	7
Kansa taisteli	Henkilöt	4132
	Karjalan paikat	885
	Kunnat	709
	Joukko-osastot	138
Menehtyneet	Kunnat	297 570
	Joukko-osastot	107 886
	Henkilöt	22
Henkilöt	Menehtyneet	94 702
	Ajat	1536
	Joukko-osastot	854
Valokuvat	Kunnat	62 317
	Karjalan paikat	25 733
	Henkilöt	5424
Joukko-osastot	Ajat	2601
	Kunnat	721
	Karjalan paikat	412
Karjalan paikat	Kunnat	30 267

## Linked Data Finland

---



This dataset includes harmonized data of different kinds concerning the Second World War in Finland, separated in different graphs representing events, actors, places, photographs, and other aspects and documentation of the war. To test and demonstrate its usefulness, this data service is in use in the semantic portal [WarSampo](#) explained in more detail in this [project page](#).

Example SPARQL queries for the data:

- [Events, photographs and articles that are situated in Vyborg](#)
- [Casualties of the 1st Division and its subunits in the time interval 13.2.-13.3.1940 by place and date](#)

---

## License

[CC BY 4.0](#)



See possible graph-specific licenses below.

---

## Detailed Dataset Contents

**Wartime Events (URI: <http://ldf.fi/warsa/events>)**



( [Browse data](#) / [View in Sotasampo.fi](#) / [Download](#) )

Information on the events of the Winter War and Continuation War were derived from the books Talvisodan pikkujättiläinen, Jatkosodan pikkujättiläinen, and the organization records of the Finnish Defence Force.

# SPARQL-kyselyeditori

```
1 PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
2 PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
3 PREFIX crm: <http://www.cidoc-crm.org/cidoc-crm/>
4 PREFIX articles: <http://ldf.fi/schema/warsa/articles/>
5 PREFIX dc: <http://purl.org/dc/elements/1.1/>
6
7 # Events, photographs and articles that are situated in Vyborg
8 SELECT *
9 WHERE {
10   BIND (<http://ldf.fi/warsa/places/municipalities/m_place_614> as ?viipuri)
11   { ?event crm:P7_took_place_at ?viipuri ;
12       skos:prefLabel ?prefLabel;
13       a ?eventTypeURI;
14       crm:P4_has_time-span ?timespan .
```

 **Table**

Showing 1 to 50 of 5,571 entries (in 0.248 seconds)

	viipuri	event	prefLabel	eventTypeURI	timespan	picture
1	<a href="http://ldf.fi/warsa/places/municipalities/m_place_614">http://ldf.fi/warsa/places/municipalities/m_place_614</a>	<a href="http://ldf.fi/warsa/events/event_173">http://ldf.fi/warsa/events/event_173</a>	Puna-armeijan joukot saivat Viipurin valtaustehtävän.	<a href="http://ldf.fi/warsa/events/event_types/MilitaryActivity">http://ldf.fi/warsa/events/event_types/MilitaryActivity</a>	<a href="http://ldf.fi/warsa/events/times/time_1940-02-26-1940-02-26">http://ldf.fi/warsa/events/times/time_1940-02-26-1940-02-26</a>	
2	<a href="http://ldf.fi/warsa/places/municipalities/m_place_614">http://ldf.fi/warsa/places/municipalities/m_place_614</a>	<a href="http://ldf.fi/warsa/events/event_181">http://ldf.fi/warsa/events/event_181</a>	Puna-armeijan joukot saavuttivat Viipurin suunnassa takaa-	<a href="http://ldf.fi/warsa/events/event_types/MilitaryActivity">http://ldf.fi/warsa/events/event_types/MilitaryActivity</a>	<a href="http://ldf.fi/warsa/events/times/time_1940-03-01-1940-03-01">http://ldf.fi/warsa/events/times/time_1940-03-01-1940-03-01</a>	

# Linkitetyn datan selaus

SAHA3 | warsa - search

[http://ldf.fi/warsa/events/event\\_536](http://ldf.fi/warsa/events/event_536)

## Tapahtuma: Sotamarsalkka Mannerheim tarkasti Lapualla ulkomaisista vapaaehtoisista

[\[edit\]](#)

<a href="http://purl.org/dc/elements/1.1/description">http://purl.org/dc/elements/1.1/description</a>	Sotamarsalkka Mannerheim tarkasti Lapualla ulkomaisista vapaaehtoisista muodostetun Osasto Sisun.
<a href="http://www.cidoc-crm.org/cidoc-crm/P11_had_participant">http://www.cidoc-crm.org/cidoc-crm/P11_had_participant</a>	<a href="#">Ylipäällikkö</a>
<a href="http://www.cidoc-crm.org/cidoc-crm/P4_has_time-span">http://www.cidoc-crm.org/cidoc-crm/P4_has_time-span</a>	<a href="#">1940-03-27</a>
<a href="http://www.cidoc-crm.org/cidoc-crm/P7_took_place_at">http://www.cidoc-crm.org/cidoc-crm/P7_took_place_at</a>	<a href="#">Lapua</a>
<a href="http://www.w3.org/1999/02/22-rdf-syntax-ns#type">http://www.w3.org/1999/02/22-rdf-syntax-ns#type</a>	<a href="#">Tapahtuma</a>
<a href="http://www.w3.org/2004/02/skos/core#prefLabel">http://www.w3.org/2004/02/skos/core#prefLabel</a>	Sotamarsalkka Mannerheim tarkasti Lapualla ulkomaisista vapaaehtoisista muodostetun Osasto Sisun.
<a href="http://www.w3.org/2004/02/skos/core#related">http://www.w3.org/2004/02/skos/core#related</a>	<a href="http://www.yso.fi/onto/ysa/Y94257">http://www.yso.fi/onto/ysa/Y94257</a>

### References (1)

<http://ldf.fi/warsa/events> (<http://www.w3.org/ns/sparql-service-description#Graph>) ← <http://rdfs.org/ns/void#exampleResource>

# Skeeman dokumentaatio



Powered by

Other visualisation:  
[Ontology source](#)

## Table of Content

- [Classes](#)
- [Object Properties](#)
- [Data Properties](#)
- [Named Individuals](#)
- [Annotation Properties](#)
- [Namespace Declarations](#)

## Classes

[aidinkieli](#) [hautausmaa](#) [kansalaisuus](#) [kansallisuus](#) [kunta](#) [menehtymislukka](#) [siviilisaaety](#) [sotilasarvo](#) [sotilasarvo ryhmä](#) [sukupuoli](#)

[aidinkieli](#)<sup>c</sup>

[back to ToC](#) or [Class ToC](#)

IRI: <http://ldf.fi/schema/narc-menehtyneet1939-45/Aeidinkieli>

**has super-classes**

[concept](#)<sup>c</sup>

**is in range of**

[Äidinkieli](#)<sup>op</sup>

**has members**

[italia](#)<sup>ni</sup>, [norja](#)<sup>ni</sup>, [ruotsi](#)<sup>ni</sup>, [saame](#)<sup>ni</sup>, [saksa](#)<sup>ni</sup>, [suomi](#)<sup>ni</sup>, [tanska](#)<sup>ni</sup>, [tuntematon](#)<sup>ni</sup>, [turkki](#)<sup>ni</sup>, [venaejaa](#)<sup>ni</sup>, [viro](#)<sup>ni</sup>

# Tilastotietoja datasta

Aether VoID Statistics Viewer

Limit to: all subjects

all properties

all objects

Go to

## General Statistics

### General Statistics

**Triples:** 10,912

**RDF Nodes:** 5,757

### Distinct Triple Parts

**Subjects:** 1,687

**Properties:** 10

**Objects:** 4,060

### Classes

**Subject Classes:** 6

**Property Classes:** 0

**Object Classes:** 0

**Total Classes:** 6

### Literal Components

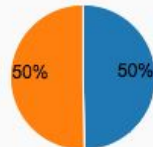
**Datatypes:** 1

**Languages:** 0

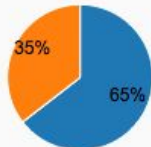
### Subject RDF Node Types



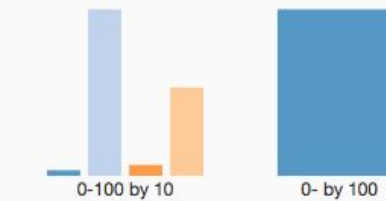
### Object RDF Node Types



### Combined Node Types

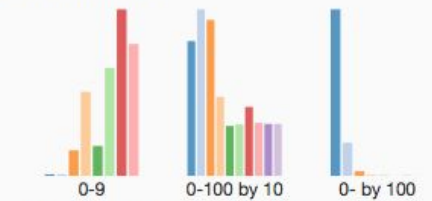


### IRI Lengths



Average IRI length: 43.000

### Literal Lengths



Average Literal length: 62.000

## Namespace Information

*rdf:* <http://www.w3.org/1999/02/22-rdf-syntax-ns#>  
*events2:* <http://ldf.fi/warsa/events/>

*skos:* <http://www.w3.org/2004/02/skos/core#>  
*ysa:* <http://www.yso.fi/onto/ysa/>

*crm:* <http://www.cidoc-crm.org/cidoc-crm/>  
*municipalities:* <http://ldf.fi/warsa/places/municipalities/>

*dce:* <http://purl.org/dc/elements/1.1/>  
*actors:* <http://ldf.fi/warsa/actors/>  
*karelian\_places:* [http://ldf.fi/warsa/places/karelian\\_places/](http://ldf.fi/warsa/places/karelian_places/)

<http://goo.gl/LgQhmQ>

# Skeemojen käytön analyysi ja validointi

## vocab @ http://ldf.fi/warsa/sparql

Vocabulary score 83.4%

Vocabulary score is calculated from the usage of deferenceable vocabularies. The vocabulary used by this dataset is 83% resolved. For more detailed vocabulary assesment see the [Assessment](#) section.

Dataset has 1 issues

There is 1 issues detected from the unresolved namespaces, or undefined classes and properties. For list of issues in this dataset see [Issues](#) section.

## Vocabularies in use

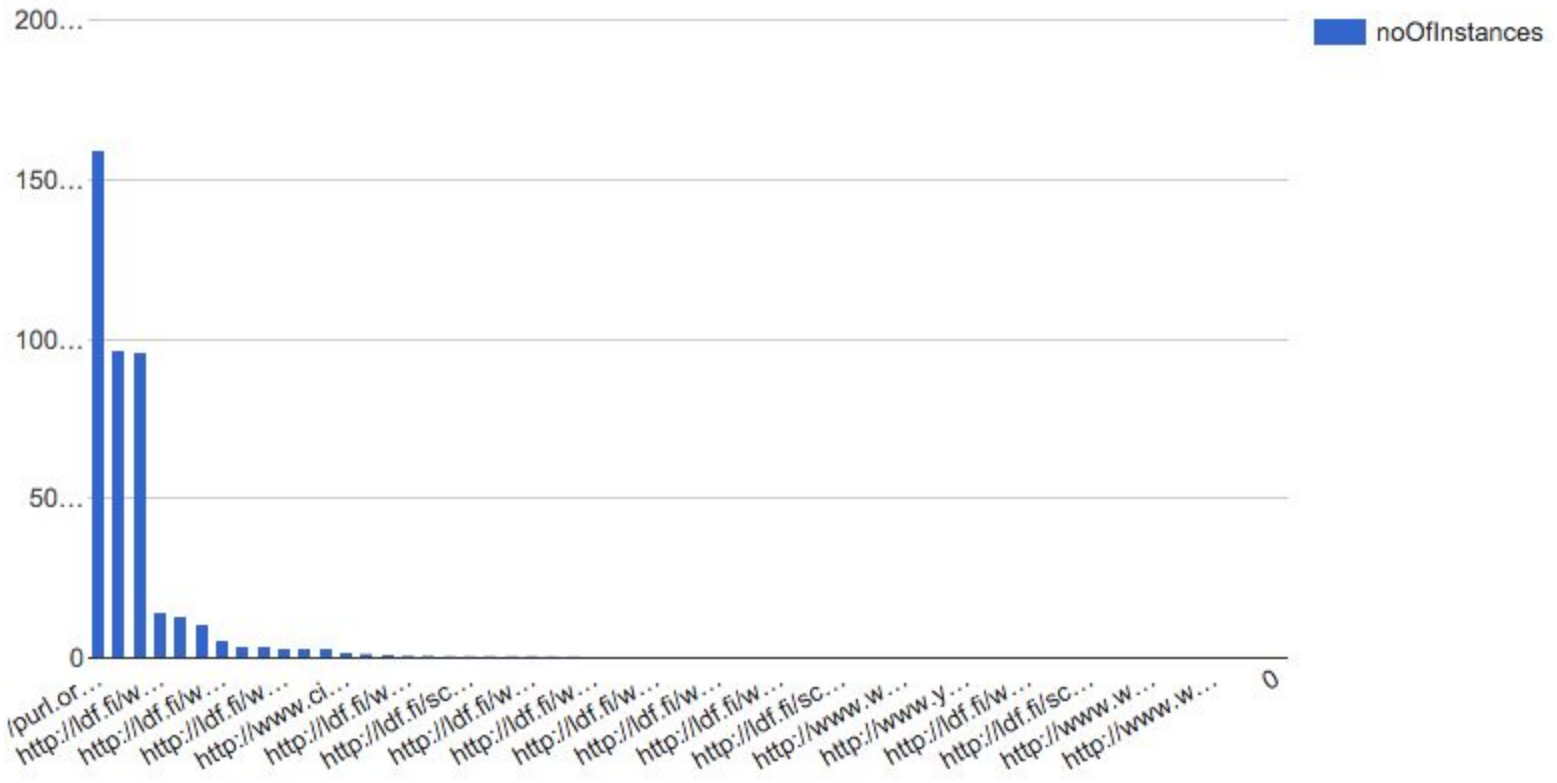
This dataset uses 4 vocabularies from the following namespaces. Vocabularies are resolved from the namespaces, and if used namespace is not deferenceable, ! is used to indicate an issue.

Namespaces and prefixes at a glance

```
prefix crm: <http://www.cidoc-crm.org/cidoc-crm/> 6  
prefix na0: <http://ldf.fi/warsa/events/event\_types/> 3  
prefix skos: <http://www.w3.org/2004/02/skos/core#> 2  
prefix dc: <http://purl.org/dc/elements/1.1/> 1
```

# Visualisointi SPARQL-kyselyiden avulla

```
SELECT ?class (count(?instance) AS ?noOfInstances)
WHERE{ ?instance a ?class }
GROUP BY ?class
ORDER BY DESC (count(?instance))
```





# Kiitos!

- Tutustu datapalveluun:  
<http://www.ldf.fi/dataset/warsa>
- Loppupäivän esityksissä syvennyttään palvelussa julkaistuihin aineistoihin ja niiden sovelluksiin