

Here is my Query, where are my Results? A Search Log Analysis of The EOWEB® GeoPortal

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Knowledge for Tomorrow

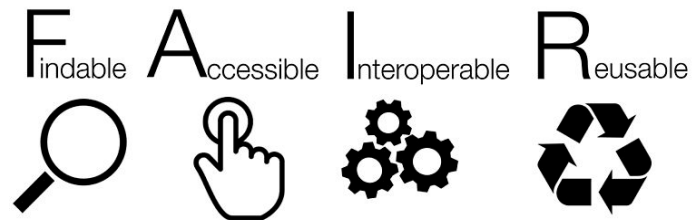


Motivation

The data and information produced in the framework of **Copernicus** should be made available on a **full, open** and **free-of-charge** basis [...], in order to promote their **use** and **sharing**, [...].

Regulation (EU) No 377/2014 of the European Parliament and of the Council

Not just available, but findable!



EOWEB® GeoPortal

Keyword

Spatial

Temporal

Type

Collection

The screenshot shows the search filter interface of the EOWEB GeoPortal. At the top, there are navigation tabs for 'Home', 'Catalog', and 'Maps'. The user is logged in as 'anonymous'. The filter management section includes a 'Filter Management' dropdown and a 'Filter:' label. Below this, there are four filter categories: 'Filter by Keywords' with an input field and 'Ok' button; 'Filter by Region' with a world map and a blue selection marker; 'Filter by Time' with 'Starttime' (1970-01-01) and 'Endtime' (2019-01-25) fields, each with HH and MM dropdowns; and 'Filter by Type' with checkboxes for 'Dataset' (selected) and 'Dataset Series'.

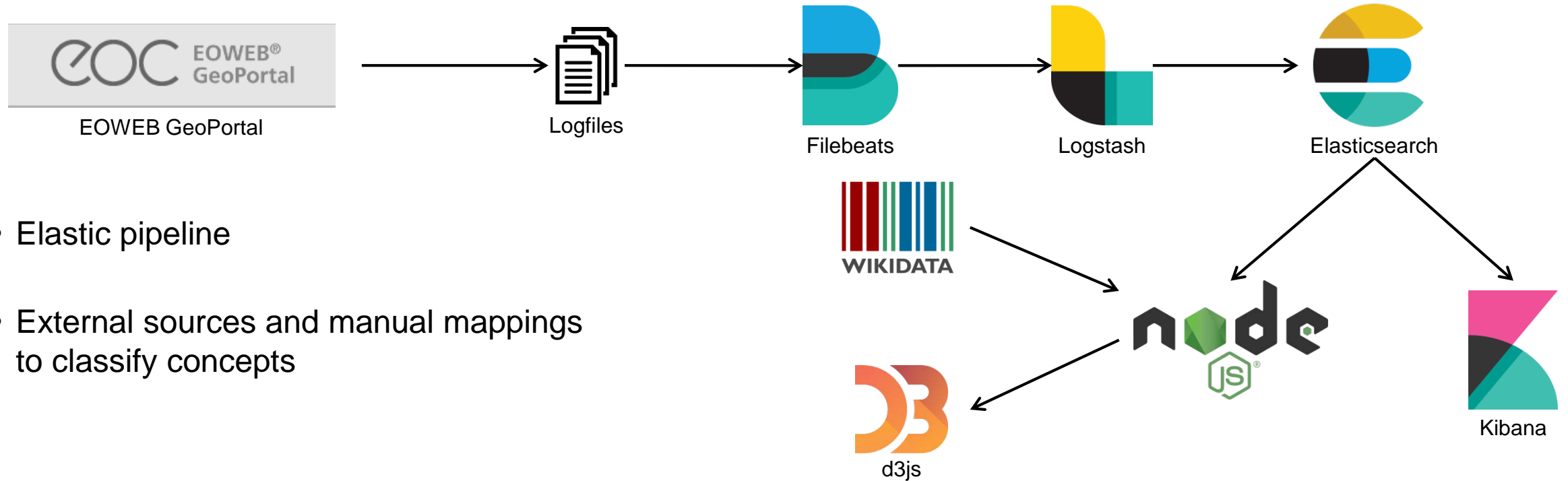
This screenshot shows a different view of the search filters. The 'Filter by Region' section is expanded, showing a world map with a blue selection marker and a 'Show Advanced Map' button. The 'Filter by Time' section is also visible, showing the same date range. The 'Filter by Collection' section is newly added, featuring a list of collection types with checkboxes: O3M-SAF, Optical Sensors High Resolution, Optical Sensors Medium Resolution, SAR (Synthetic Aperture Radar Data), SWACI, TSX-1, TSX-1 Experimental Products, and TanDEM-X.

Items View | 0 of 20 results selected | Toggle View | Show items: 20 | Go to: 1 /160810

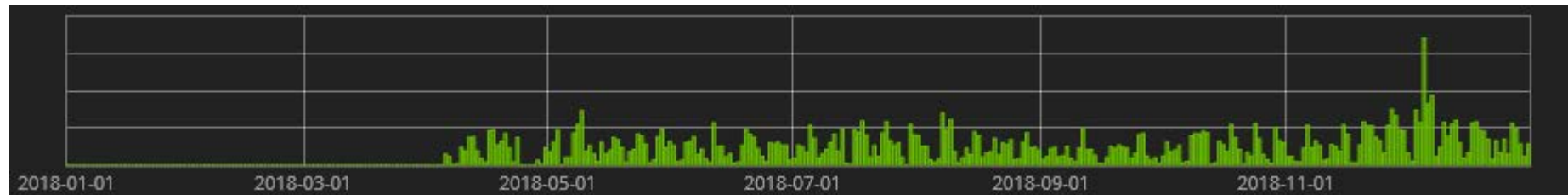
Nr	Avail.	Product Type	Start Date	Start Date	End Date	Mission/Satellit	Hide Preview
1	●	IRS-P6.LISS-IV.P-MONO	2010-05-01T09:41:39.829Z	2010-05-01T09:41:50.369Z	IR06	M_	
2	●	IRS-P6.LISS-IV.P-MONO	2010-05-01T09:41:39.829Z	2010-05-01T09:41:50.369Z	IR06	M_	



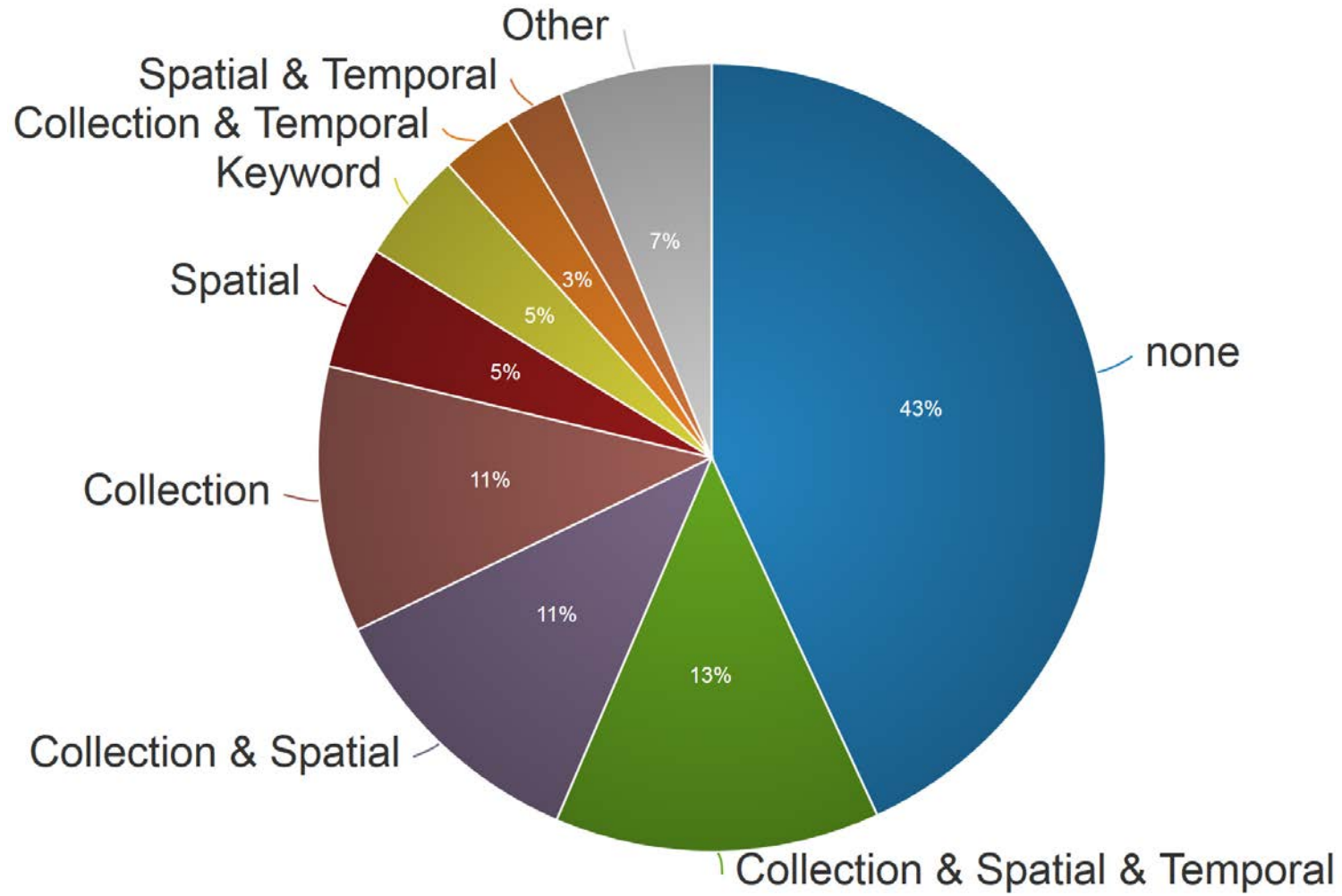
Processing Pipeline



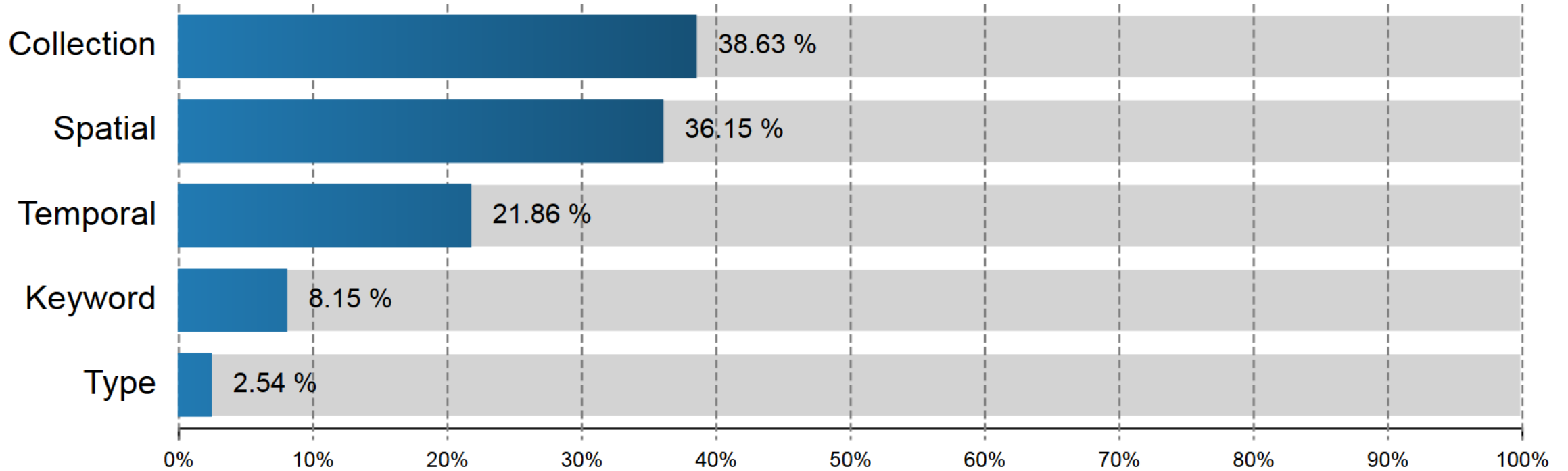
- Elastic pipeline
- External sources and manual mappings to classify concepts



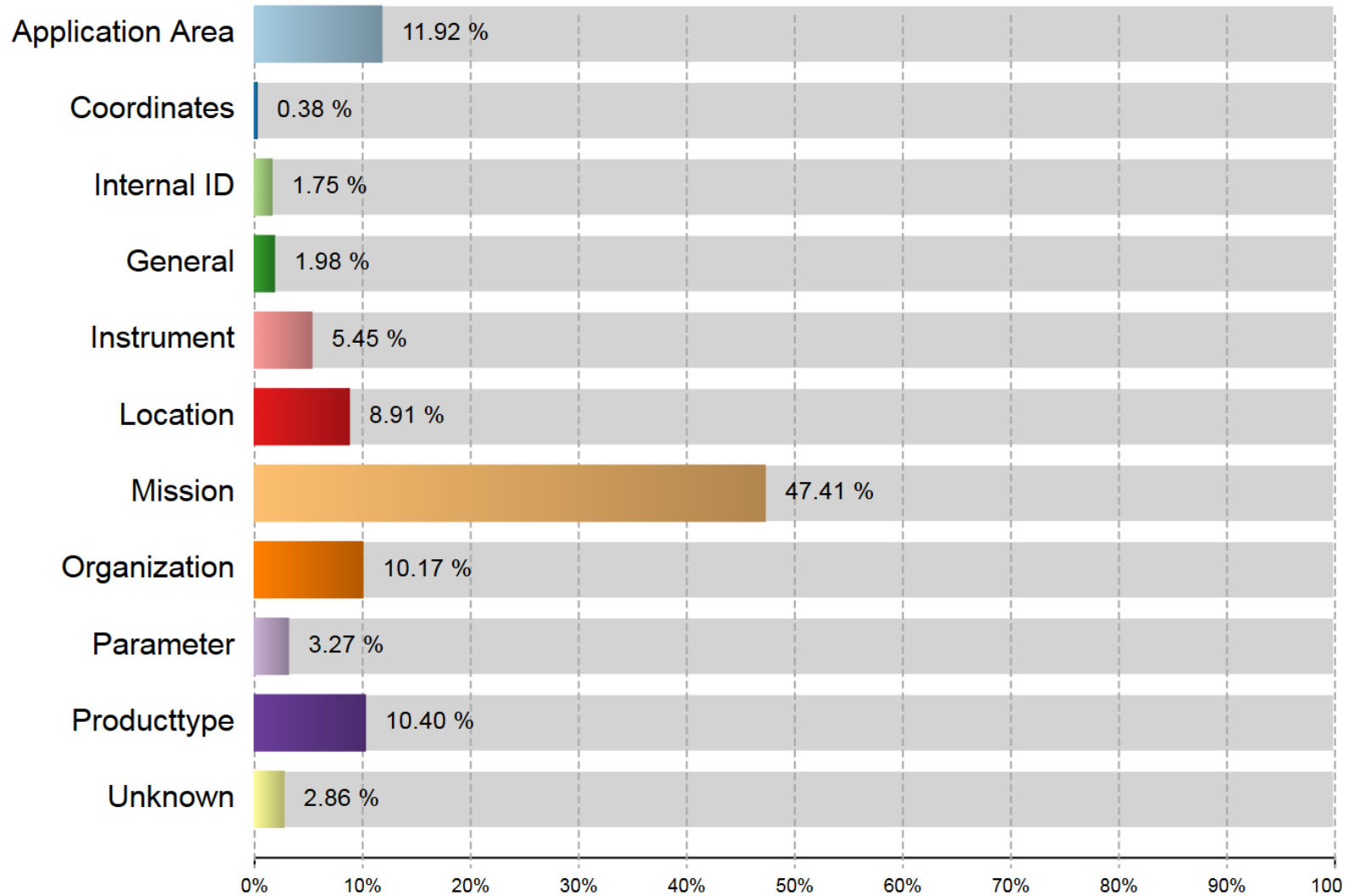
Constraint Usage – Constraint-Combinations



Constraint Usage – Frequency of Constraints



Keyword Concept Classes



Issues: Typos and Abbreviations

- Typographical Issues

Terra SAR – X; Terra SAR X; terrasarx; TS-X; ... 0 result(s)

TSX 6 result(s)

TerraSAR-X; terrasar=x; TerraSAR; ... 45 result(s)

- Abbreviation Issues

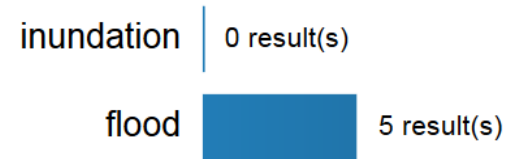
O3 5 result(s)

Ozone 31 result(s)

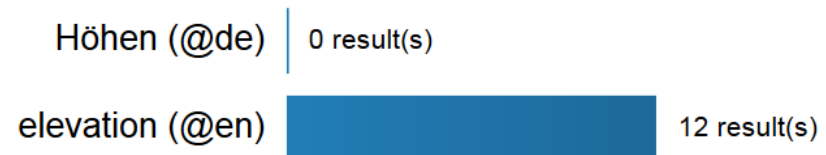


Issues: Semantics and Languages

- Semantic Issues



- Languages



Suggestions – Resolving Keywords

- Resolve location based keywords
 - RegExp for coordinates
 - Databases for names



- AutoComplete
 - Use codelists generated from the metadata
 - Suggest users the “correct” spelling

The screenshot shows a search interface with a search bar containing the word "flood". To the left of the search bar are two buttons: "View history" and a star icon. Below the search bar is a dropdown menu listing several results for "flood":

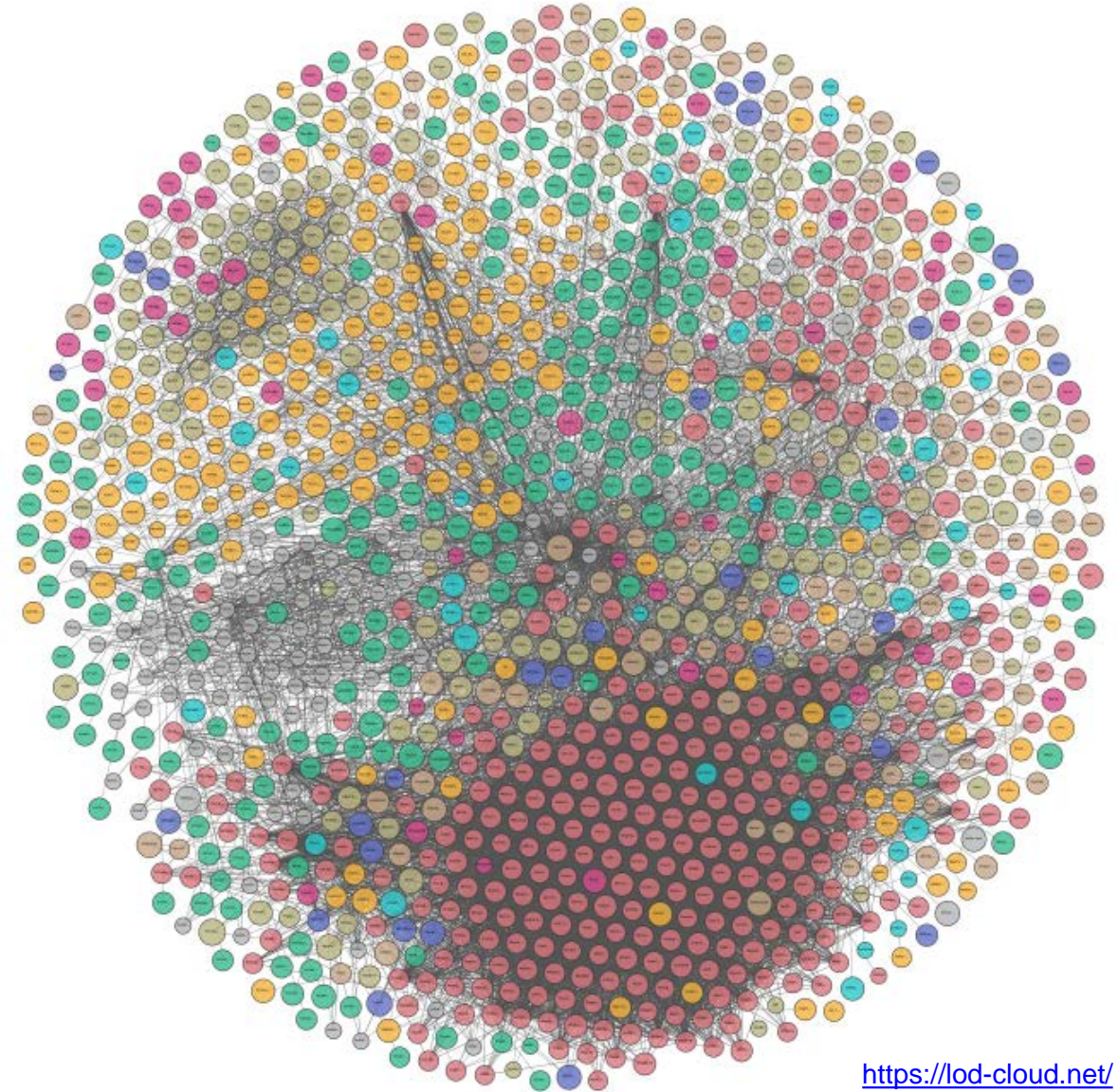
- flood**
overflow of water that submerges land
- Flood**
British post-punk and alternative rock record producer and...
- Flood**
family name
- Flood**
studio album by They Might Be Giants
- Flood**
An overflow of water that submerges land which is usually...
- Flood**
2007 British disaster film directed by Tony Mitchell
- Flood**
2002 disaster thriller novel by Richard Doyle

At the bottom right of the dropdown menu is a "more" link. To the left of the dropdown menu, there is a diagram with green lines connecting to the search results. One line is labeled "linked" and another is labeled "structured".



Suggestions – Semantic Web

- Network of concept and their relations
- Labels & alternative labels in multiple languages
- Synonyms, Hyponyms, Hypernyms, ...



<https://lod-cloud.net/>



Questions, Comments, ... ?



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