



Drupal Europe

Darmstadt, Germany

Sep 10 - 14, 2018

www.drupaleurope.org



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Drupal PKM

A Personal Knowledge Management Drupal distro

https://www.yongt9412.com/assets/drupal_pkm.pdf (Spanish)



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Drupal 8 Developer at MD Systems

 @yongt9412

Overview

What we gonna talk about?

- What is currently happening?
- Some knowledge(?) to share
- Drupal PKM conceptual design
- Drupal PKM modules
- Drupal time



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What is currently happening?

Current situation

Endless amount of knowledge sources



Filling a glass with a fire truck hose

Knowledge as an asset

Companies create it



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Top-down or Bottom-up?

How do we manage our knowledge?



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Knowledge workers

Our main “weapon” is knowledge



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Keeping the competitive advantage

If we know what we know



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Some knowledge(?) to share

Theory



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“an extension of the current web, in which information is given a defined meaning, facilitating the cooperative work of computers and people.”

Berners-Lee, Hendler, & Lassila, 2001

Ontologies

What they are?



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Metadata schemes that provide a controlled vocabulary of concepts, each with an explicitly defined and machine-processable semantics. With the definition of common and shared domain theories, ontologies help both people and machines to communicate concisely, supporting the exchange of semantics and not just syntax.

Faceted lightweight ontologies

What they are?

Metadata schemes that provide a controlled vocabulary of concepts, each with an explicitly defined and machine-processable semantics. With the definition of common and shared domain theories, ontologies help both people and machines to communicate concisely, supporting the exchange of semantics and not just syntax.

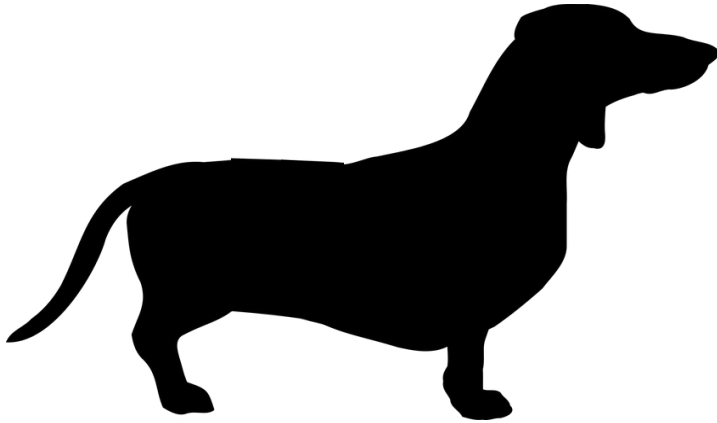
Neo4j

Graph database

It is a NoSQL database oriented to open source graphs implemented in Java and Scala. It implements the storage level property plot model, provides complete database features including ACID transactions, support for clusters and runtime failover for use in production.

Data

Numbers and symbols



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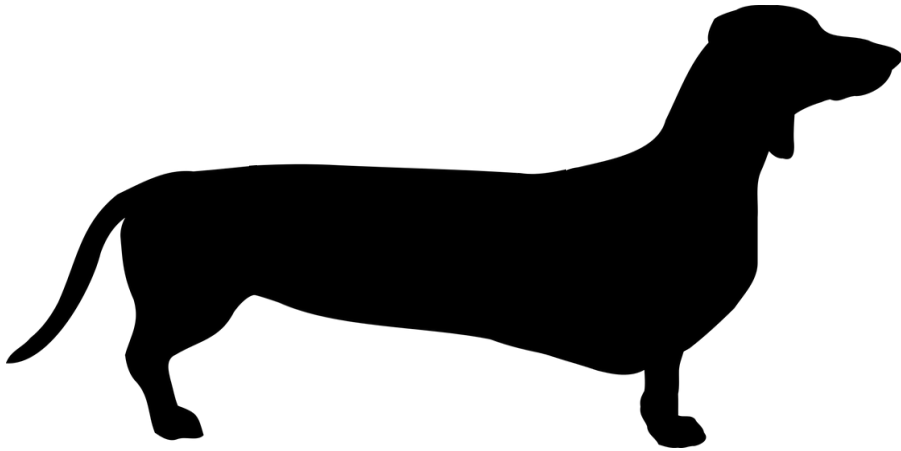


Data

Numbers and symbols



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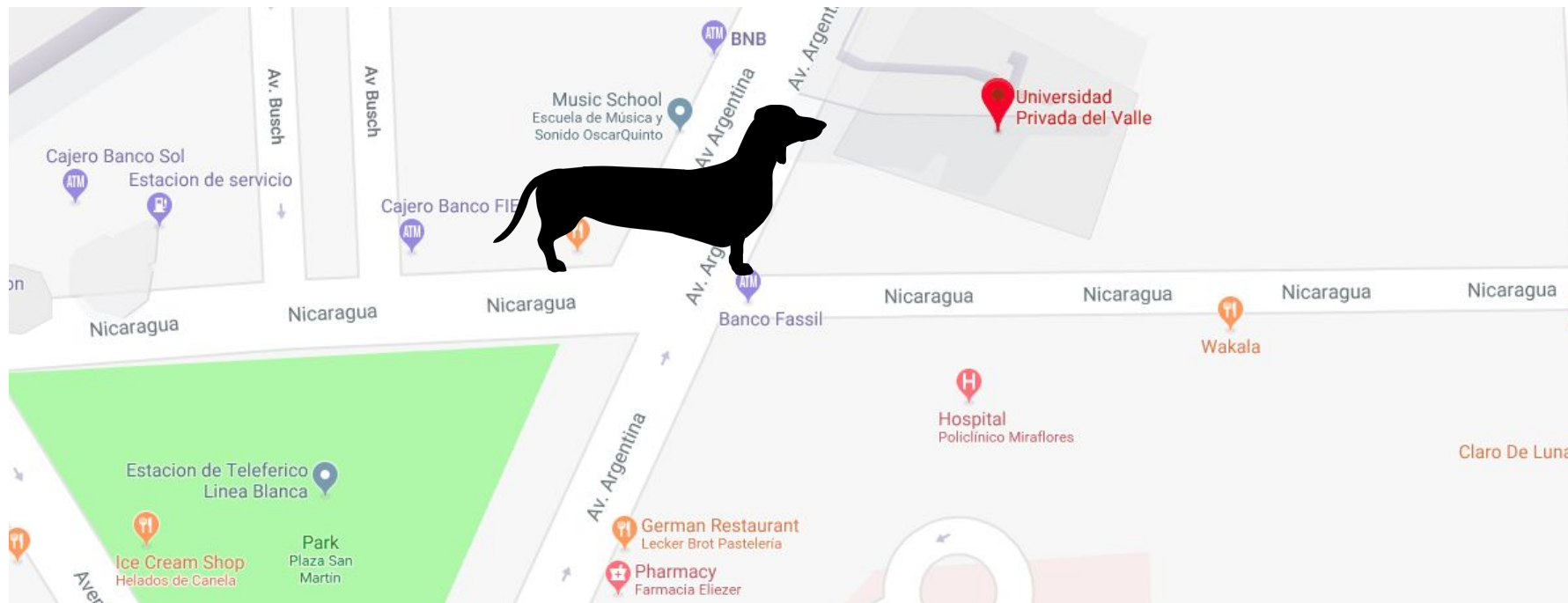


Information

Data that has a meaning



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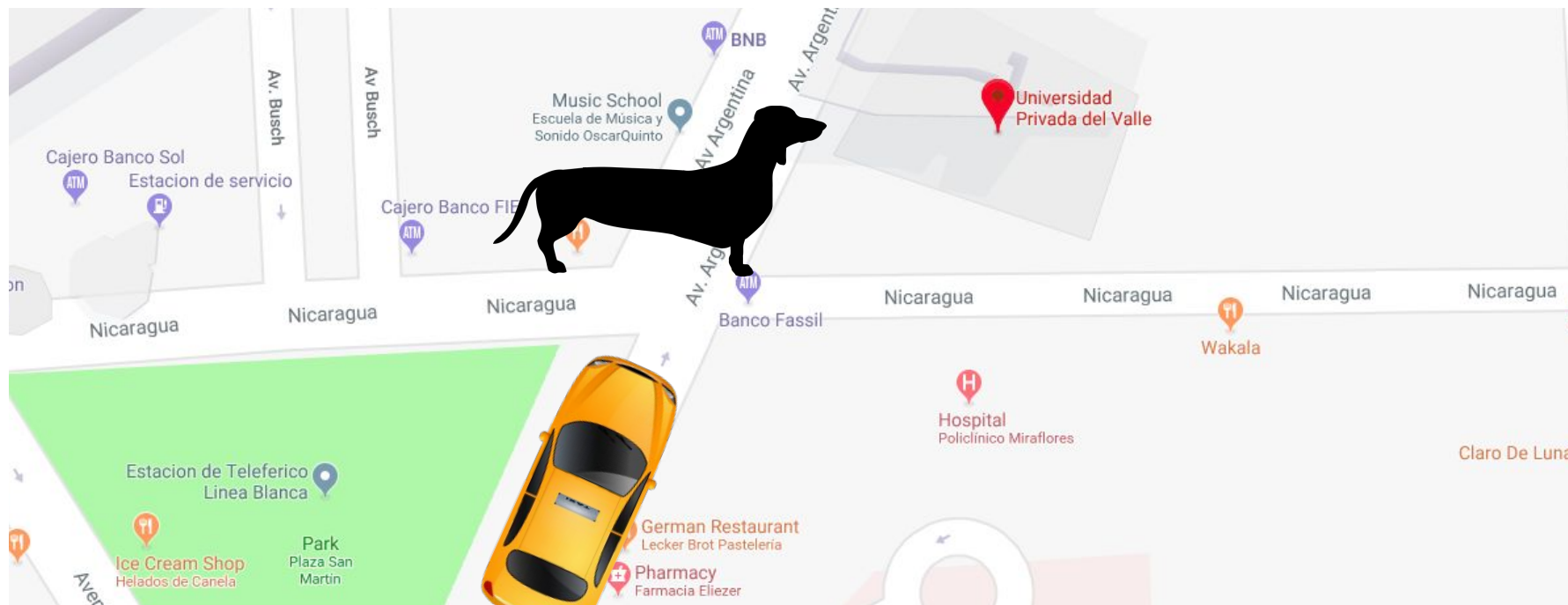


Knowledge

Context



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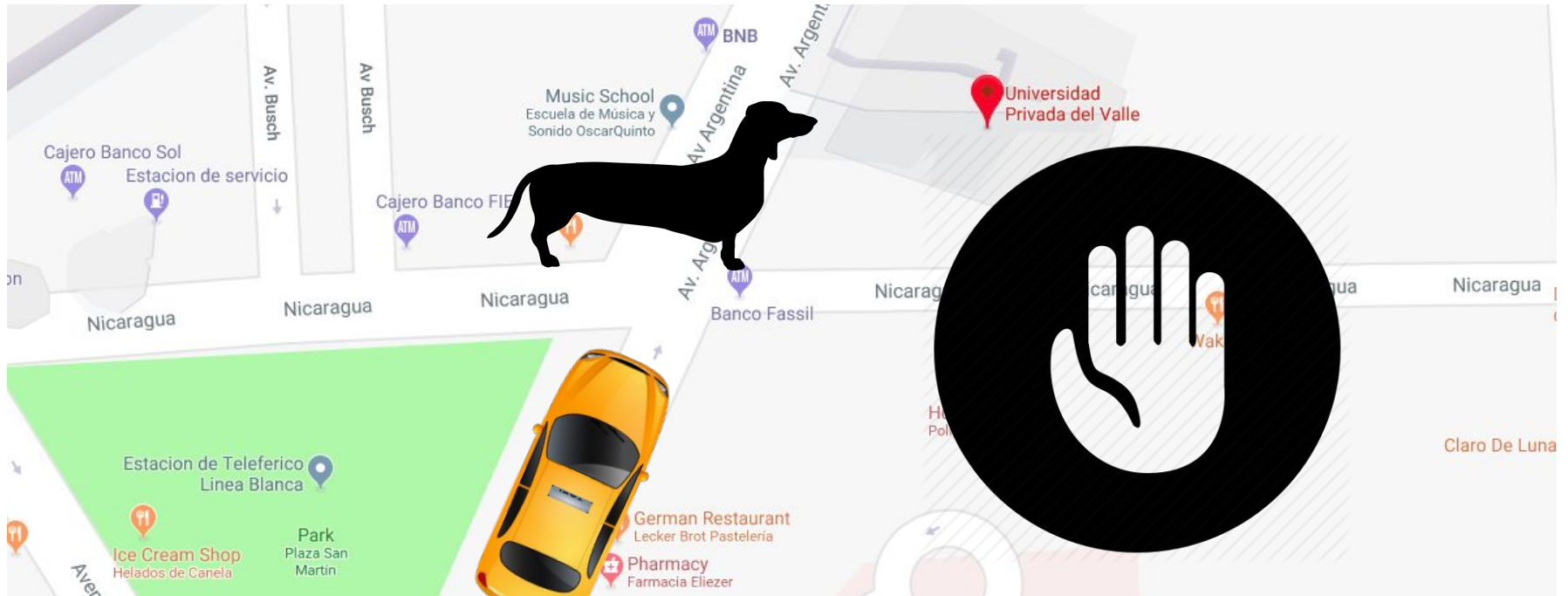


Wisdom

Good or bad?



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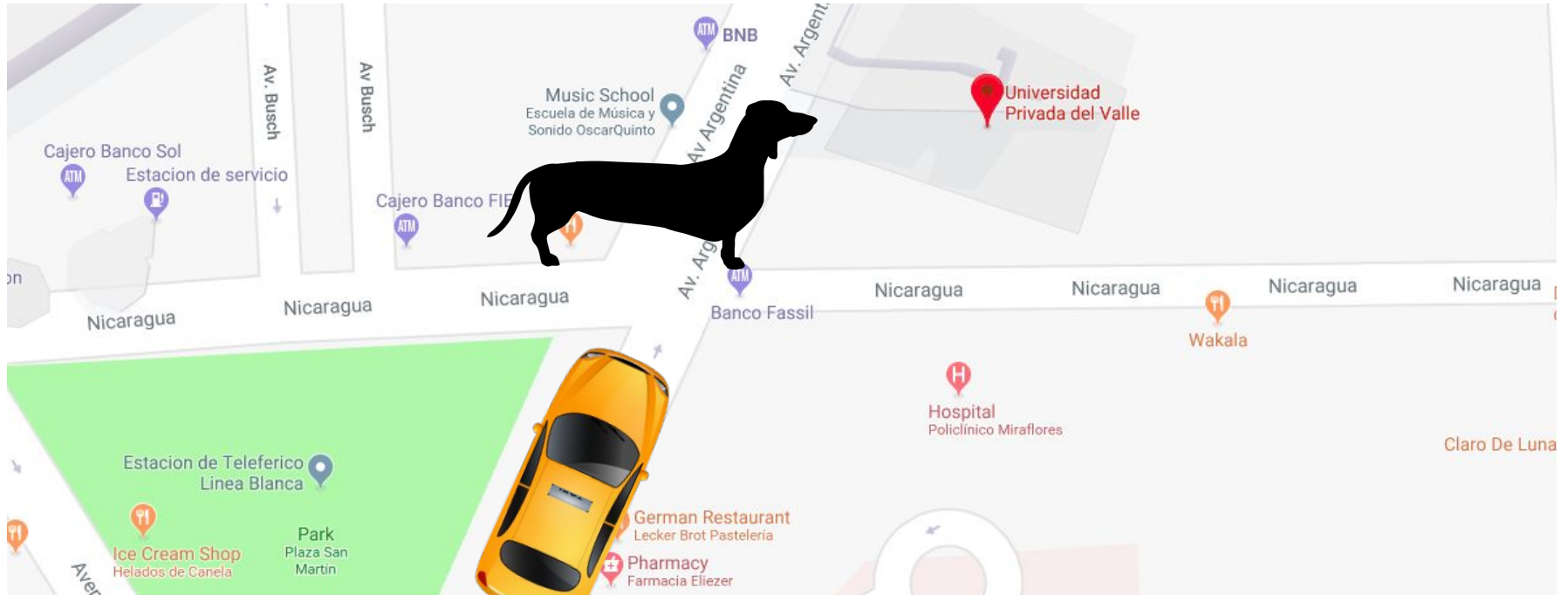


Knowledge management

Organizational



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Knowledge Management

What it is?

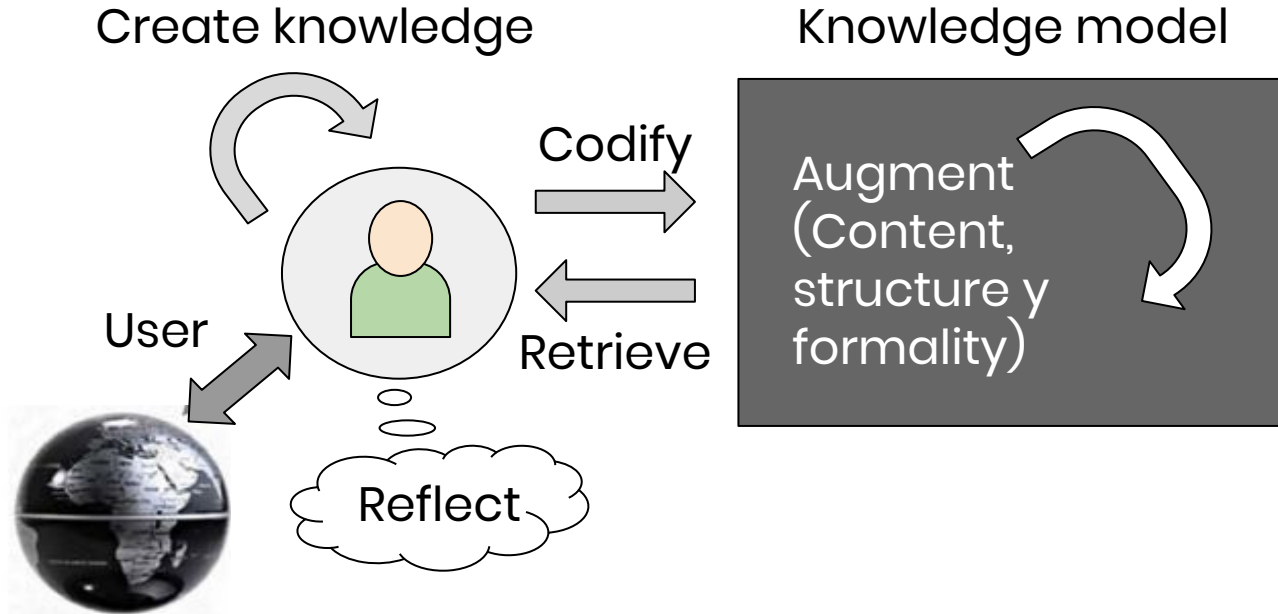
A process that addresses the development, storage, retrieval, and dissemination of information and expertise within an organization to support and improve its business performance.

Personal Knowledge Management

If we know what we know



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Conceptual design

Drupal PKM

PKM Process

Völkel Model

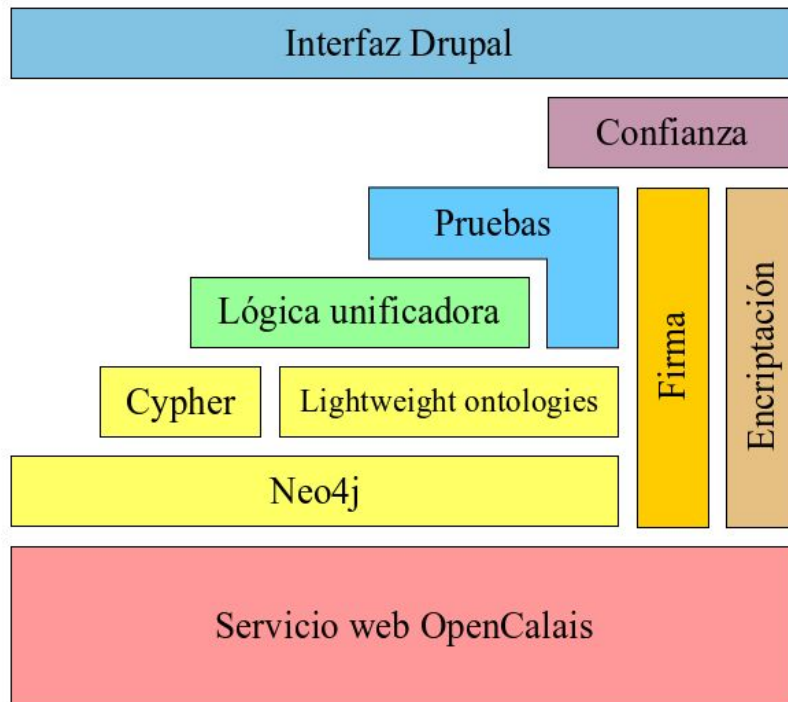
Process	Variable	In Drupal PKM
Knowledge acquisition	Environment Learning skills	None
Knowledge codification	Creating knowledge cues	Notes admin page
Augment: Extending content	Estructura textual	Revision management
Augment: Structure	Knowledge cues relations	Relation admin page
Augment: Formality	Metadata	Tags admin page
Knowledge retrieval	Semantics Structure	Query execution page
Knowledge use	Usage skills	None

Ontology model

Semantic architecture



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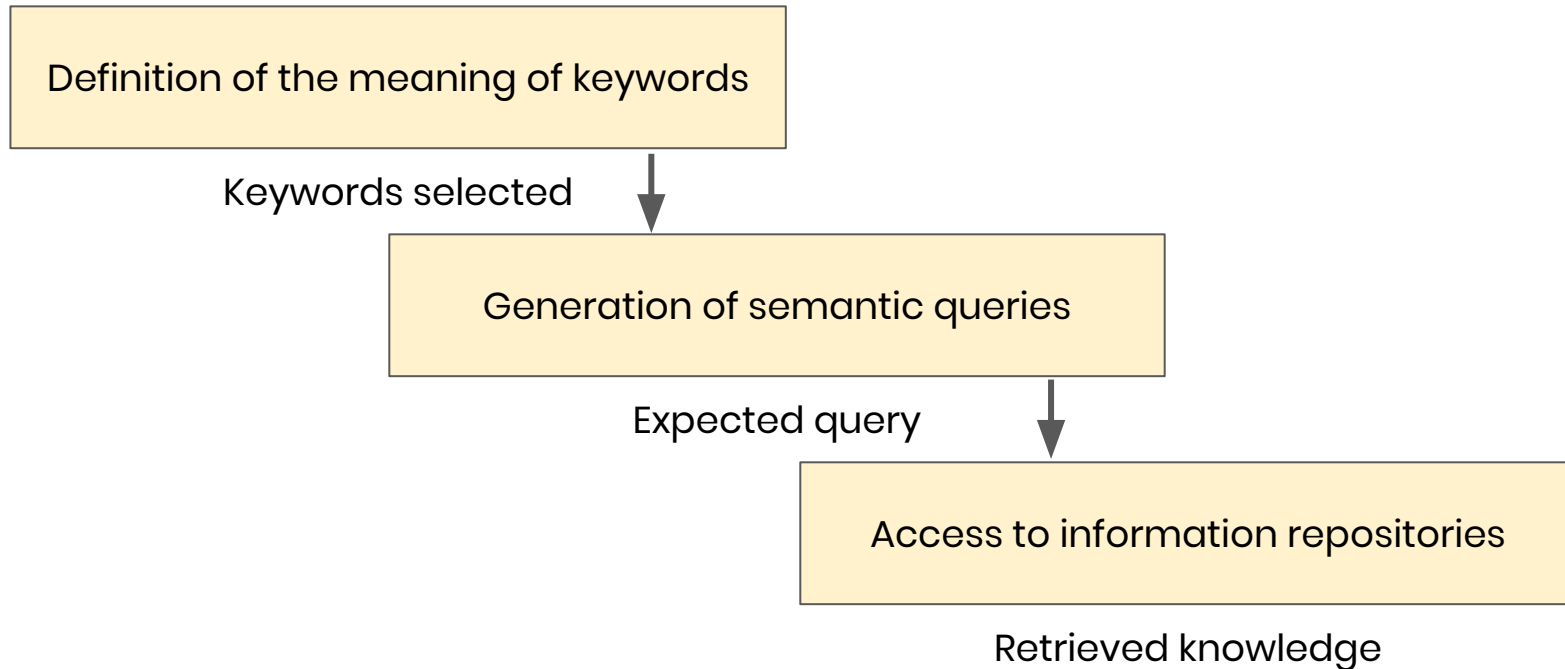


Semantic search method

Semantic queries building



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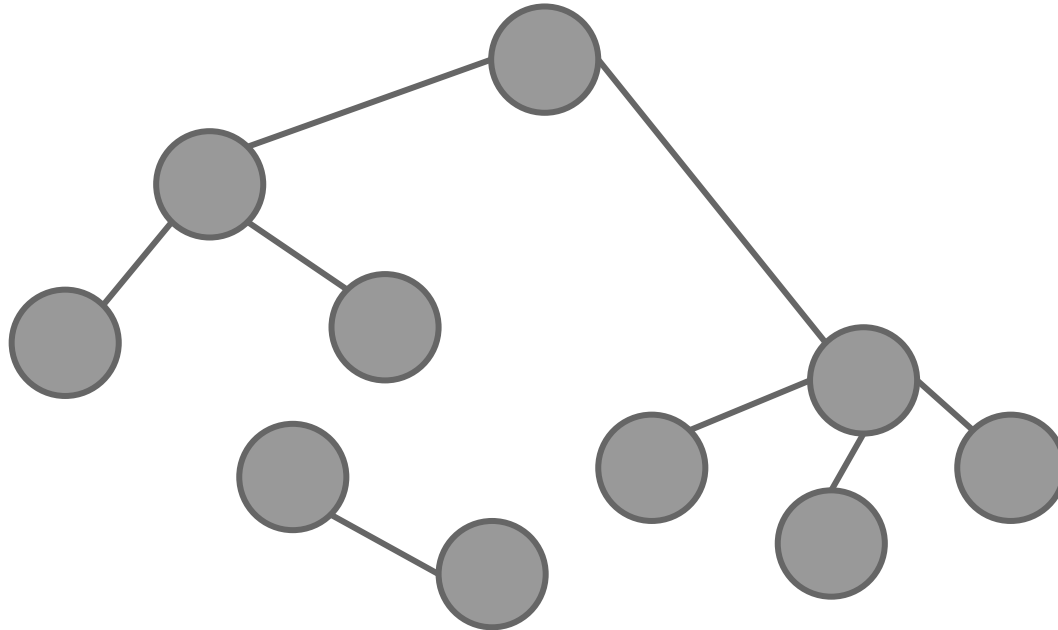


Semantic search method

Semantic queries building



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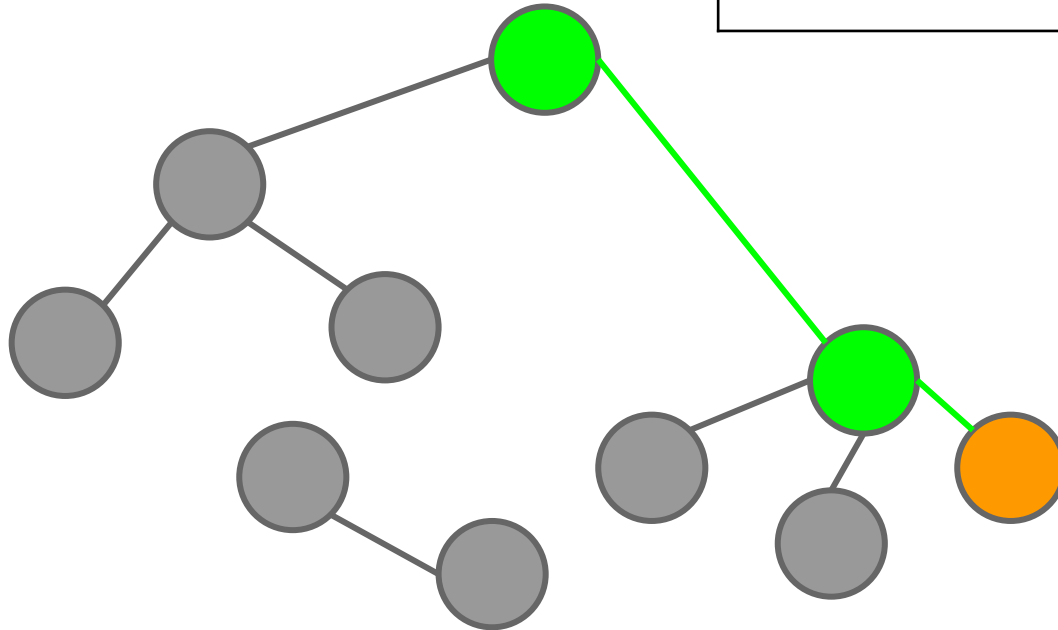


Semantic search method

Semantic queries building

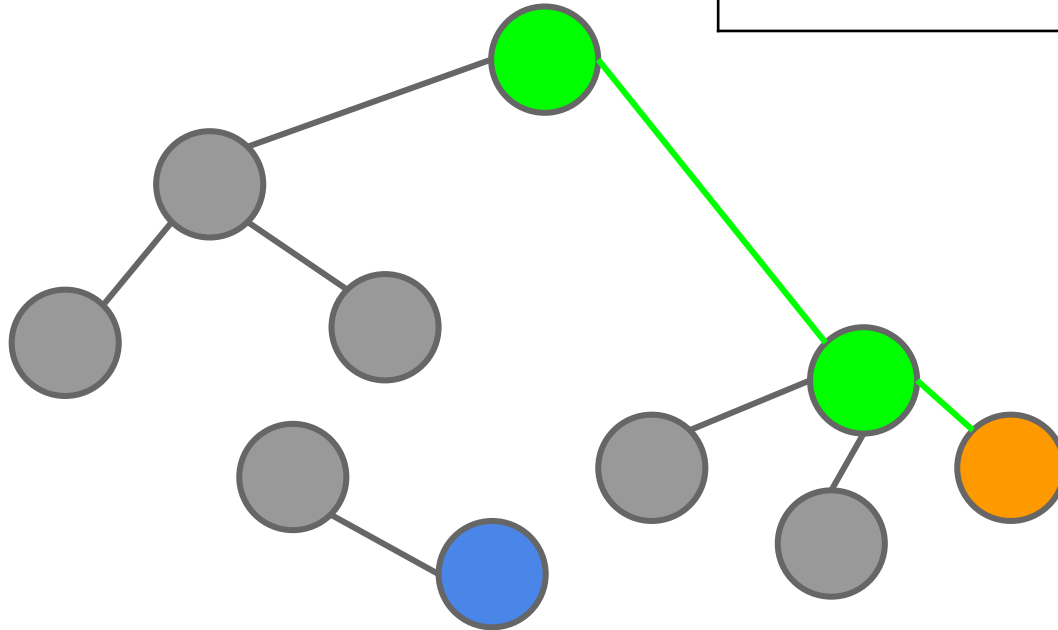
Element

```
facets =  
(nodolnicial)-[*2]-(nodo:`entity:node`)  
nodolnicial.vid = '[nombreFaceta]'  
toLowerCase(nodo.title) CONTAINS  
toLowerCase("[palabraClave]")
```



Semantic search method

Semantic queries building

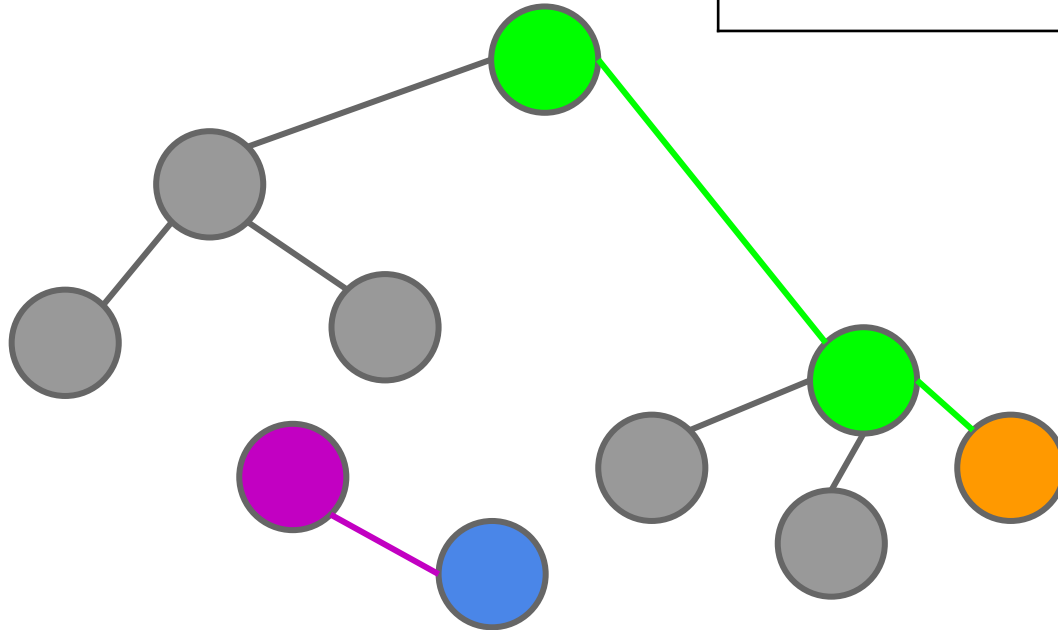


Element

```
(nodoAislado:`entity:node`)  
toLowerCase(nodoAislado.title) CONTAINS  
toLowerCase("[palabraClave]")
```


Semantic search method

Semantic queries building

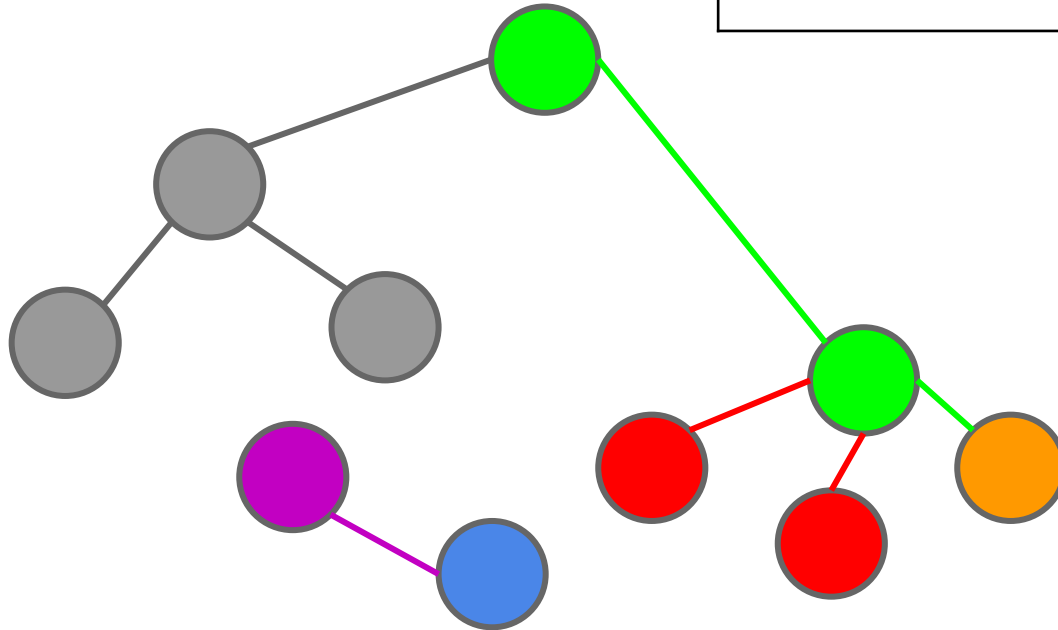


Element

(nodo)-[relacionFacetada]->(etiquetas:
entity:taxonomy_term`)

Semantic search method

Semantic queries building



Element

```
facets =  
(nodoInicial)-[*2]-(nodo:`entity:node`)  
nodoInicial.vid = '[nombreFaceta]'  
toLowerCase(nodo.title) CONTAINS  
toLowerCase("[palabraClave]")
```

Semantic search method

Semantic queries structure



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```
OPTIONAL MATCH [facet selection]
WHERE ([facet conditional] OR ...[facet conditional]) AND
([node search condition] OR ...[node search condition])
WITH facets, node
OPTIONAL MATCH [isolated node selection]
WHERE ([isolated nodes search condition] OR ...[isolated nodes search condition])
WITH facets, isolated node, node
OPTIONAL MATCH [tag selection of isolated nodes]
OPTIONAL MATCH [tag selection of connected nodes]
RETURN facets, tags, isolated node, isolated relation, facet relation
```



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Modules

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OpenCalais UI

https://www.drupal.org/project/opencalais_ui



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Configuration

Language

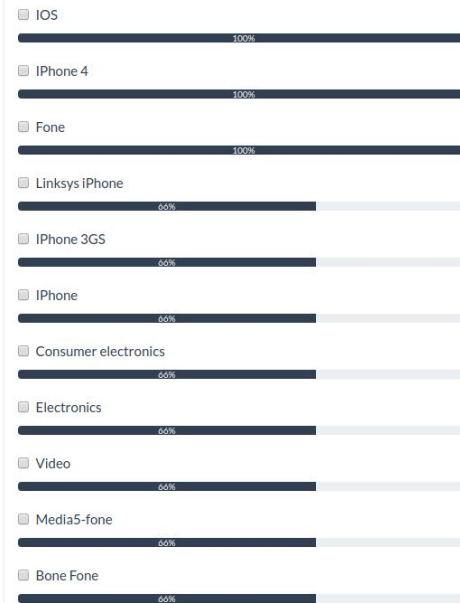
English

The language that will be used to analyze the node.

✓ Save

Suggest Tags

Social tags



Topic tags



OpenCalais UI – Problems

https://www.drupal.org/project/opencalais_ui

- D6/D7 Version https://www.drupal.org/project/opencalais_api
- No D8 Version
- Outdated API
- WSOD
- No idea what I was doing



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Selection note

https://www.drupal.org/project/selection_note



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cost 5C, a version of the 5 with colored plastic casings instead of metal. They were followed by the larger iPhone 6, with models featuring 4.7-and-5.5-inch (120 and 140 mm) displays. The iPhone 6S was introduced the following year, which featured hardware upgrades and support for pressure-sensitive touch inputs, as well as the SE—which featured hardware from the smaller form factor of the 5S. In 2016, Apple unveiled the iPhone 7 and 7 Plus, which add water resistance, improved system and graphics performance, a new rear dual-camera setup on the Plus model, and new color options, while removing the 3.5 mm

Add Note

Selection note – Problems

https://www.drupal.org/project/selection_note



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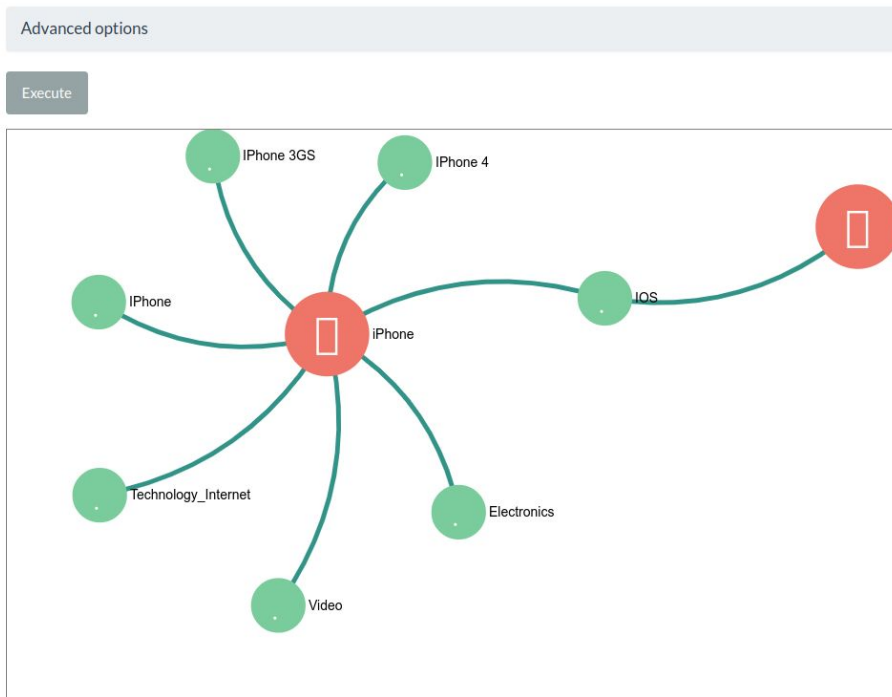
- No similar concept
- Relation module and Search API [#2919153]/[#2916092]
- ERR
- WSOD (many of them)
- Still, no idea what I was doing

Neo4j visualizer

https://www.drupal.org/project/neo4j_visualizer



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Neo4j visualizer – Problems

https://www.drupal.org/project/neo4j_visualizer

- No similar concept
- Outdated libraries
- Performance issues
- No clear documentation



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Drupal PKM

To be released soon



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Drupal PKM – Problems

To be released soon

- Only maintainer
- D7 modules
- Theming



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Drupal time

Showcase



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What's next?

Future

What's next?

Future of Drupal PKM

- Release it
- Keep evolving the tools based on user's feedback
- SaaS



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What's next?

Future of Drupal PKM

- Knowledge creation
- Complex ontologies
- Natural language



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Become a Drupal contributor Friday from 9am

- First timers workshop
- Mentored contribution
- General contribution



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I would like to thank to
MD Systems for all their support
during the development of this
Drupal distribution.



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Thank you

Q&A