



OOPS! (Ontology Pitfall Scanner!) helps you to detect some of the most common pitfalls appearing when developing ontologies.

To try it, enter a URI or paste an OWL document into the text field above. A list of pitfalls and the elements of your ontology where they appear will be displayed.

Scanner by URI:

Scanner by URI

Example: http://oops.linkeddata.es/example/swc_2009-05-09.rdf

Scanner by direct input:

```
<owl:ObjectProperty
  rdf:about="http://www.semanticweb.org/sajith/ontologies/2020/0/AgriOntology#hasTransplantingInformation">
  <rdfs:subPropertyOf
    rdf:resource="http://www.w3.org/2002/07/owl#topObjectProperty"/>
  <owl:inverseOf
    rdf:resource="http://www.semanticweb.org/sajith/ontologies/2020/0/AgriOntology#isTransplantingInformationOf"/>
  <rdf:type
```

Scanner by RDF

☐ Uncheck this checkbox if you don't want us to keep a copy of your ontology.

[Go to advanced evaluation](#)

Evaluation results

It is obvious that not all the pitfalls are equally important; their impact in the ontology will depend on multiple factors. For this reason, each pitfall has an importance level attached indicating how important it is. We have identified three levels:

- **Critical** 🚫 : It is crucial to correct the pitfall. Otherwise, it could affect the ontology consistency, reasoning, applicability, etc.
- **Important** ⚠️ : Though not critical for ontology function, it is important to correct this type of pitfall.
- **Minor** 😊 : It is not really a problem, but by correcting it we will make the ontology nicer.

[\[Expand All\]](#) | [\[Collapse All\]](#)

Results for P04: Creating unconnected ontology elements.

1 case | Minor 😊

Ontology elements (classes, object properties and datatype properties) are created isolated, with no relation to the rest of the ontology.

- This pitfall appears in the following elements:
 - > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#AverageYield>

Results for P08: Missing annotations.

11 cases | Minor 😊

Want to help?

- [Suggest new pitfalls](#)
- [Provide feedback](#)

Documentation:

- [Pitfall catalogue](#)
- [User guide](#)
- [Technical report](#)

Related papers:

- [IJSWIS 2014](#)
- [EKAW 2012](#)
- [ESWC 2012 Demo](#)

This pitfall consists in creating an ontology element and failing to provide human readable annotations attached to it. Consequently, ontology elements lack annotation properties that label them (e.g. `rdfs:label`, `lemon:LexicalEntry`, `skos:prefLabel` or `skos:altLabel`) or that define them (e.g. `rdfs:comment` or `dc:description`). This pitfall is related to the guidelines provided in [5].

- The following elements have no `rdfs:label` defined:

- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#AverageYield>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/AgriOntology#WateringInformation>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/AgriOntology#TransplantingInformation>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/AgriOntology#isWateringInformationOf>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/AgriOntology#isTransplabtingInformationOf>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/AgriOntology#isFertilizerOf>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/AgriOntology#hasWateringInformation>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/AgriOntology#hasTransplantingInformation>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/AgriOntology#hasFertilizer>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/AgriOntology#hasSource>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/AgriOntology#hasFertilizerType>

Results for P11: Missing domain or range in properties.

3 cases | Important 🟡

Object and/or datatype properties without domain or range (or none of them) are included in the ontology.

- This pitfall appears in the following elements:

- > <http://www.semanticweb.org/sajith/ontologies/2020/0/AgriOntology#isFertilizerOf>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/AgriOntology#isTransplabtingInformationOf>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/AgriOntology#isWateringInformationOf>

- **Tip:** Solving this pitfall may lead to new results for other pitfalls and suggestions. We encourage you to solve all cases when needed and see what else you can get from OOPS!

Results for P34: Untyped class.

43 cases | Important 🟡

An ontology element is used as a class without having been explicitly declared as such using the primitives `owl:Class` or `rdfs:Class`. This pitfall is related with the common problems listed in [8].

- This pitfall appears in the following elements:

- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#MaxPhValue>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#TimeOfPlant>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#Fertilizer>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#TimeOfPlantingEvent>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#NonChemical>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#BedPreparationInfo>

- [Ontoqual 2010](#)
- [CAEPIA 2009](#)

Web services:

- [REST Web Service](#)

Developed by:



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- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#CausedBy>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#Chemical>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#AverageMatureTimeEvent>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#PlantationProblemEvent>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#Disease>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#Weedicide>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#FertilizerEvent>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#ApplicationMethod>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#AverageYieldEvent>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#ControlMethodEvent>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#SoilType>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#AffectedPart>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#Quantity>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#Cause>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#Pest>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#LandPreparationInfo>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#SoilOtherCharacteristic>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#Fungicide>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#SeedRequirementEvent>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#Unit>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#MinPhValue>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#HardeningInfo>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#GerminationInfo>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#TimeOfApplication>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#SeedTreatmentInfo>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#Weed>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#SeedRequirement>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#SowingInfo>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#SoilNutrient>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#Stage>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#Location>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#Crop>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#Season>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#SoilDrainage>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#AverageMatureTime>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#ClimateCondition>
- > <http://www.semanticweb.org/sajith/ontologies/2020/0/agriontology#SterilizationInfo>

Results for P41: No license declared.

ontology* | Important 🚨

The ontology metadata omits information about the license that applies to the ontology.

*This pitfall applies to the ontology in general instead of specific elements.

According to the highest importance level of pitfall found in your ontology the conformance badge suggested is "Important pitfalls" (see below). You can use the following HTML code to insert the badge within your ontology documentation:



```
<p>
<a href="http://oops.linkeddata.es"></a>
</p>
```

References:

- [1] Aguado-De Cea, G., Montiel-Ponsoda, E., Poveda-Villalón, M., and Giraldo-Pasmin, O.X. (2015). Lexicalizing Ontologies: The issues behind the labels. In Multimodal communication in the 21st century: Professional and academic challenges. 33rd Conference of the Spanish Association of Applied Linguistics (AESLA), XXXIII AESLA.
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- [3] Gómez-Pérez, A. (1999). Evaluation of Taxonomic Knowledge in Ontologies and Knowledge Bases. Proceedings of the Banff Knowledge Acquisition for Knowledge-Based Systems Workshop. Alberta, Canada.
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- [5] Vrandečić, D. (2010). Ontology Evaluation. PhD thesis.
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- [7] Rector, A., Drummond, N., Horridge, M., Rogers, J., Knublauch, H., Stevens, R., Wang, H., and Wroe, C. (2004). Owl pizzas: Practical experience of teaching owl-dl: Common errors & common patterns. In Engineering Knowledge in the Age of the Semantic Web, pages 63-81. Springer.
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How to cite OOPS!

Poveda-Villalón, María, Asunción Gómez-Pérez, and Mari Carmen Suárez-Figueroa. "OOPS!(Ontology Pitfall Scanner!): An on-line tool for ontology evaluation." International Journal on Semantic Web and Information Systems (IJSWIS) 10.2 (2014): 7-34.

BibTex:

```
@article{poveda2014oops,  
  title={{OOPS! (OntOlogy Pitfall Scanner!): An On-line Tool for Ontology Evaluation}},  
  author={Poveda-Villal{\`o}n, Mar{\`i}a and G{\`o}mez-P{\`e}rez, Asunci{\`o}n and Su{\`a}rez-Figueroa, Mari Carmen},  
  journal={International Journal on Semantic Web and Information Systems (IJSWIS)},  
  volume={10},  
  number={2},  
  pages={7--34},  
  year={2014},  
  publisher={IGI Global}  
}
```

Please, help us making OOPS! better. **Feedback** is more than welcome!

In addition, you can also **suggest new pitfalls** so that they can be detected in future evaluations.

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