


Change in "security thinking"



Friends	Information	2010
X ✓	open closed	

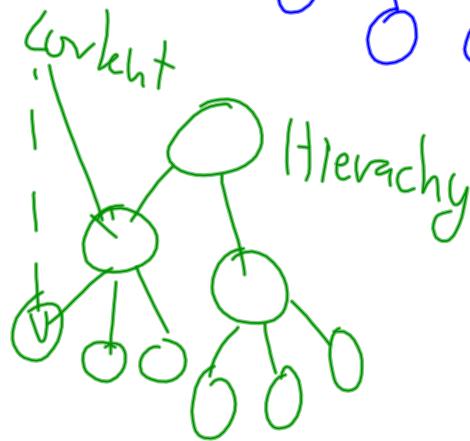
Google circles "content awareness" 2013



```

graph TD
  A(( )) --- B(( ))
  A --- C(( ))
  A --- D(( ))
  
```

Context tag people
 attribute-based access
 - role
 - context
 - context



2015?

http://goo.gl/GO8R0

http://protege.stanford.edu/download/protege/4.2/installanywhere/Web_Installers/

SWRL in Protege 4.2

File Rediger Vis Hjelp Lesetilgang

Start presentasjonen Kommentarer Del

1 annen ser på

Jess vs Pellet/Hermit

Jess handles more advanced rules - should you write "natively" in jess

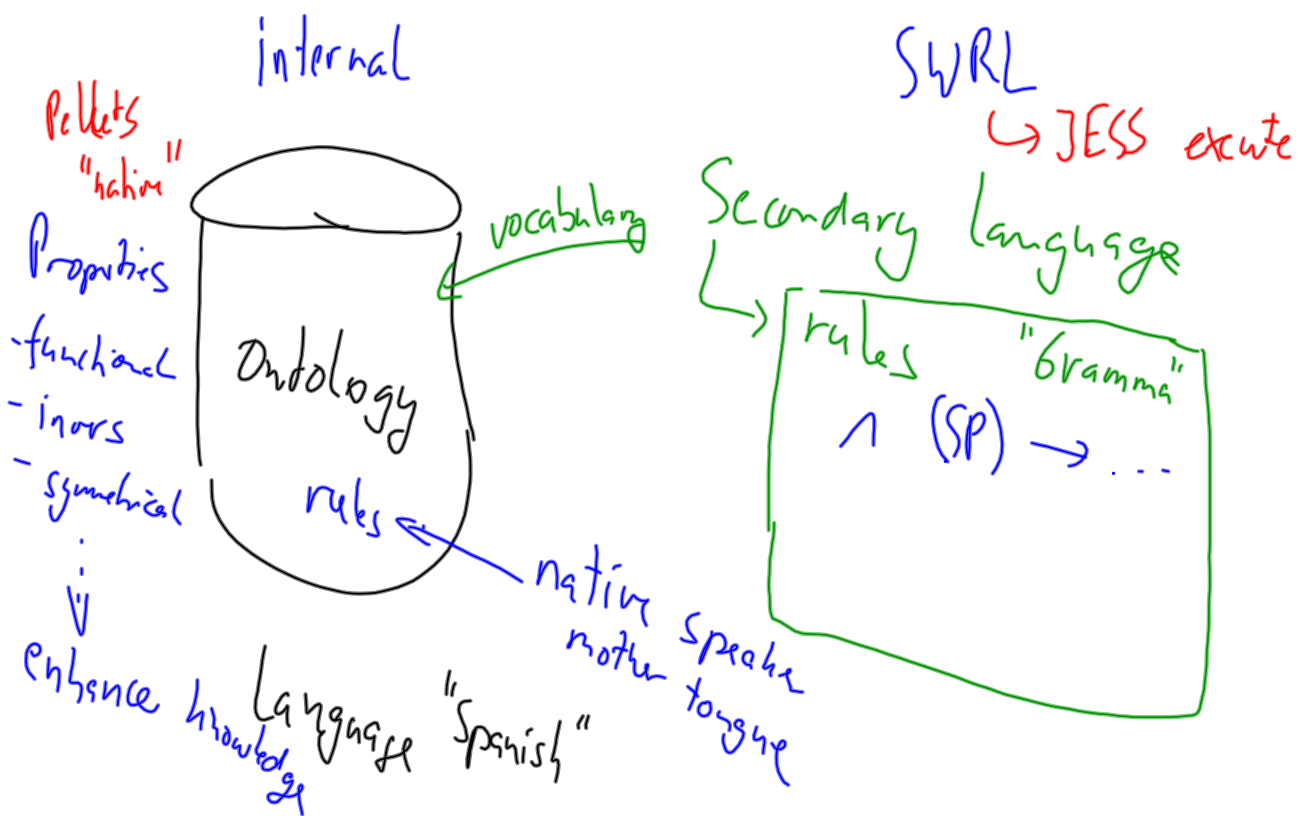
Pellet and Hermit uses SWRL directly

<http://stackoverflow.com/questions/1671396/dl-reasoner-vs-rule-engine-can-you-explain-the-difference>

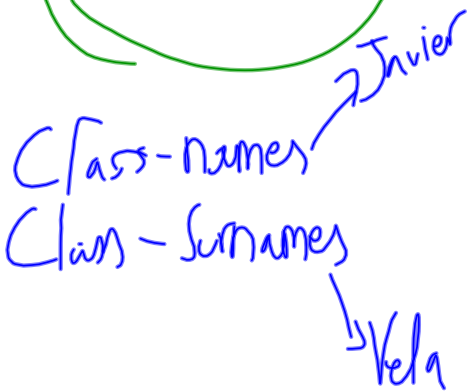
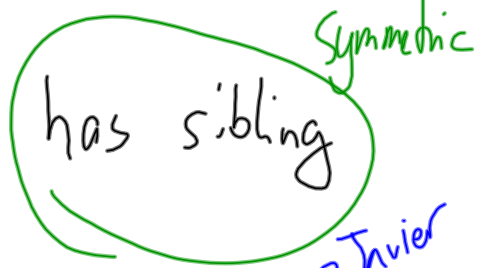
"Also, Jess is purely an implementation artifact of the current SWRLTab implementation. Jess itself should not be considered central and I will probably eventually replace it with an OWL reasoner that understands SWRL (of which there are currently two that I know of: Pellet and KAON2)."

- Martin O'Connor
<https://mailman.stanford.edu/pipermail/protege-owl/2007-July/002926.html>

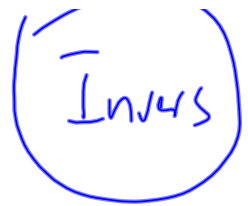
Handwritten annotations: "Pellet" in green above the title; "Protege 4.2" in green above the second paragraph; a red circle around the URL; a red circle around the quote; a green scribble at the end of the quote.



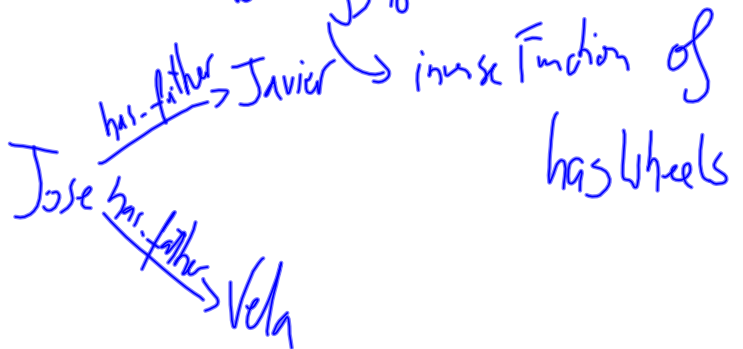
properties

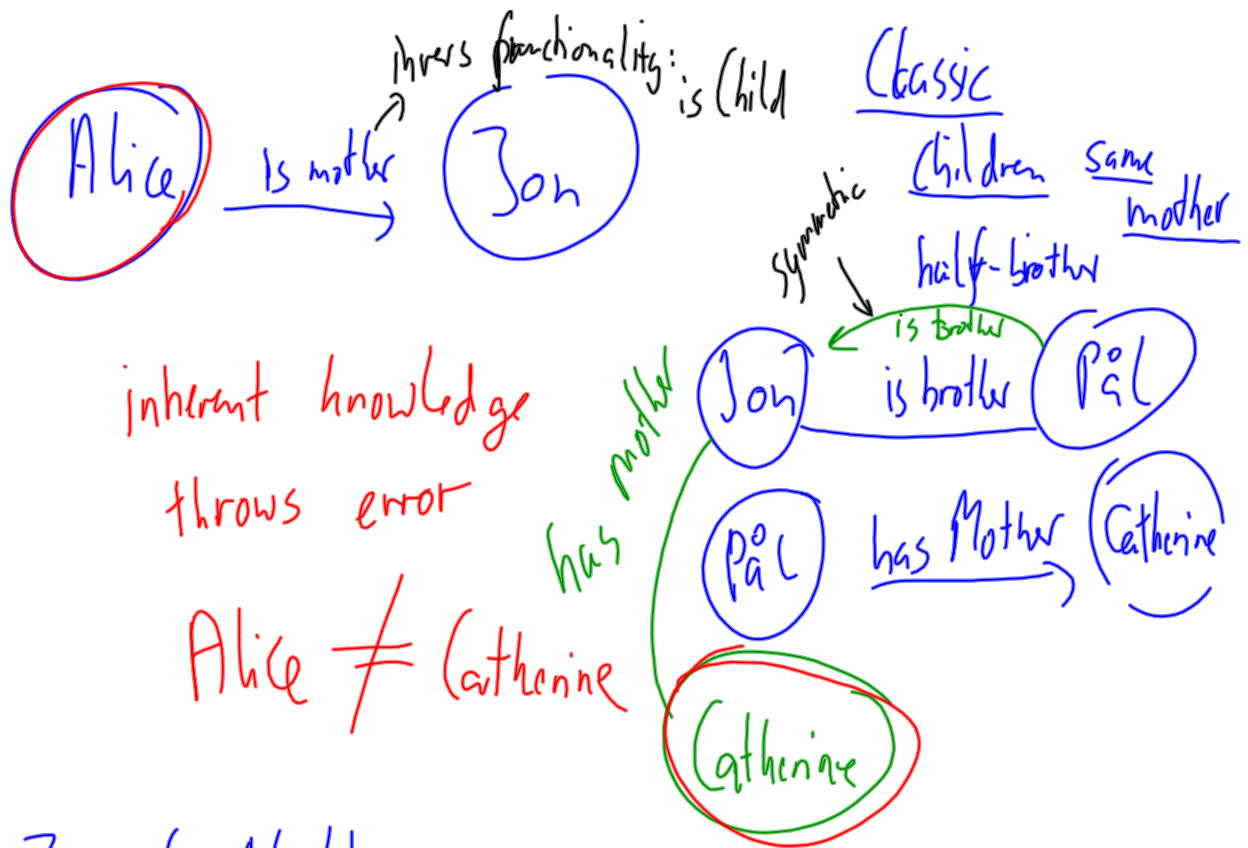


has component



belongs to





Josef. Noll

Josef Noll

Josef_ Noll

Josef Noll

Properties_Jose.pdf - Adobe Acrobat Pro Extended

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4 / 5 105% Find

Property characteristics

Peggy → Jean
Margaret → Jean

has mother
Jean → Peggy

1. instance
Not possible

- Functional
- InverseFunctional
- Symmetric
- Transitive

Transitive

Symmetric

Properties_Jose.pdf - Adobe Acrobat Pro Extended

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Internal reasoning's in Protégé

Jess
 Hermit
 Pellets

Engines do
run the queries

The results of the queries depends of the definition we've used in objects, properties, characteristics of the properties and rules.

$Student(?s) \wedge Course(?c) \rightarrow Study(?s, ?c)$
 *1
 "internal" properties
 ↳ implications
 *1 Help SWRL Query = SQWRL
 ↳ SQWRL: select(?s, ?c)

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Differences

OWL 1.0 (Protege 3.x)

- Objects with same name can be the same thing
- Open World Assumption (everything is ALLOWED until otherwise specified)
- Can contain instances of all kinds of interpretations
- Statements about classes can be both must and necessary
- Different reasoner
- SWRL Query language

Frames, OWL 2.0 (Protege 4.x)

- Objects with same name are assumed to be different
- Closed World Assumption (everything is PROHIBITED until otherwise specified)
- Can only contain instances which are explicitly specified
- Statements about classes goes for all children (only must)

Policies and Semantic Web Rules in Practise
UNIK4710/UNIK9710 7 / 10

Assignment:

- José → internal reasoner
 - enhance knowledge
 - finding errors
- ALL: execute rules → upgrade → Protégé 4.2
Simple → Complex

- ALL: programming application
API usage
- Outcome: shortcomings of SWRL
-
- The diagram shows a large right-facing curly bracket containing two boxes: a rounded rectangle labeled 'OUL' and a square labeled 'SWRL'. To the right of this bracket is a double horizontal line. To the right of the double line are the words 'API' and 'Web App' stacked vertically.