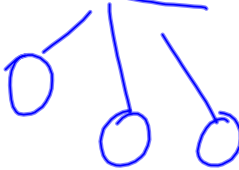


Change in "security thinking"



Friends	Information	2010
X ✓	open closed	

Google circles "content awareness" 2013



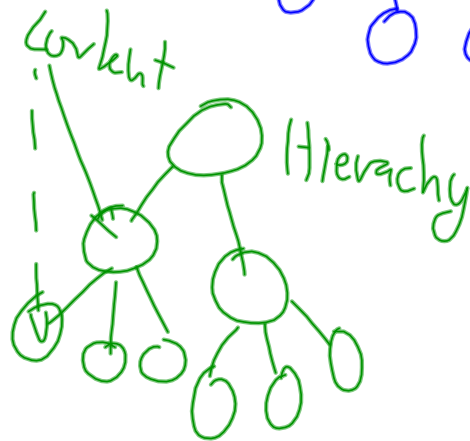
```

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

Logg inn

Start presentasjonen Kommentarer Del

1 annen ser på

Jess vs Pellet/Hermit

Jess handles more advanced rules - should you write "natively" in jess *Protege 4.2*

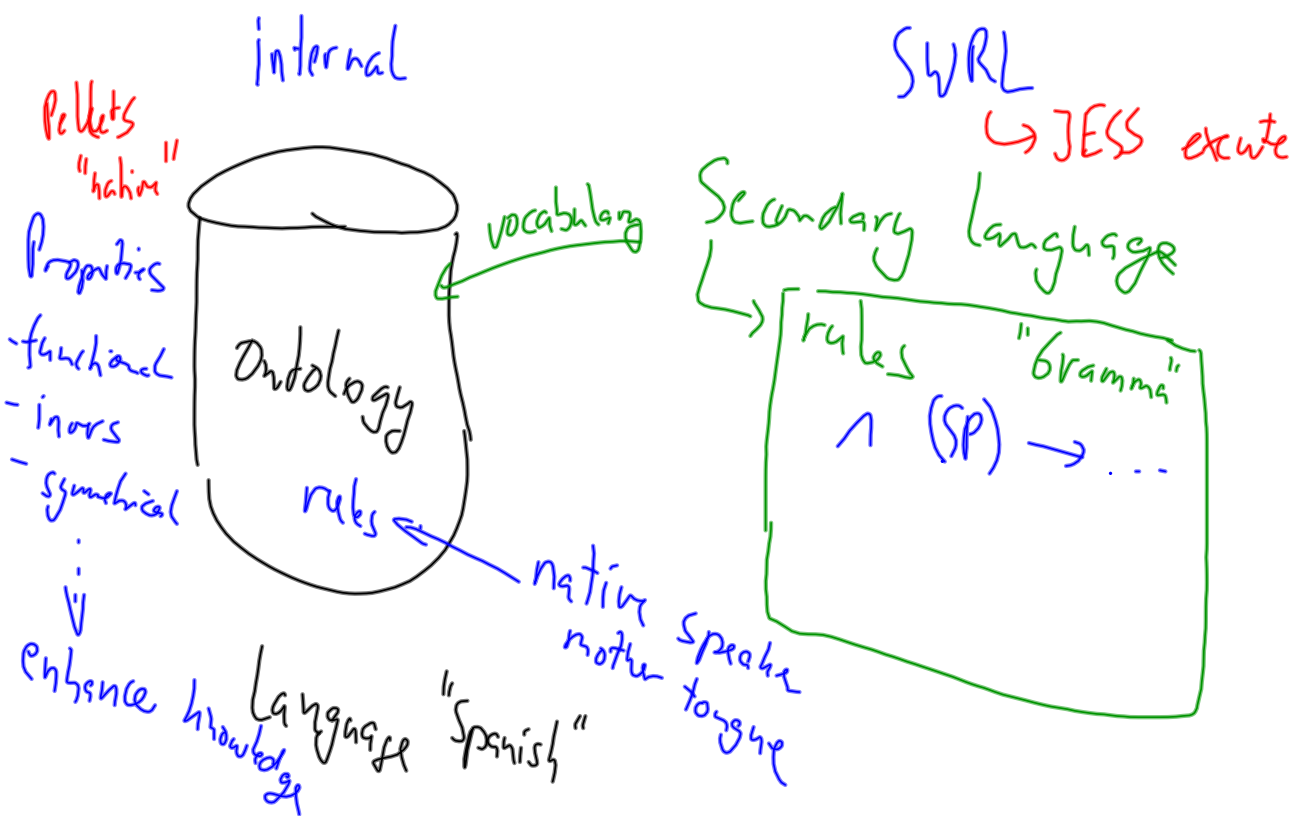
Pellet and Hermit uses SWRL directly

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

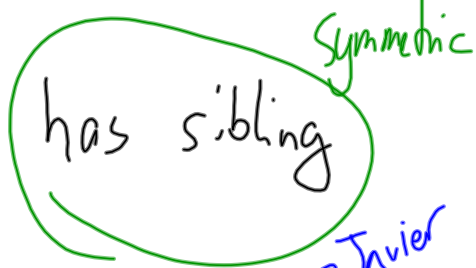
"Also, Jess is purely an implementation artifact of the current SWRLTab implementation. Jess itself should not be considered central and I will probably eventually replace it with an OWL reasoner that understands SWRL (of which there are currently two that I know of: Pellet and KAON2)."

- Martin O'Connor

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



properties



Class-names → Javier
Class-Surnames → Vela

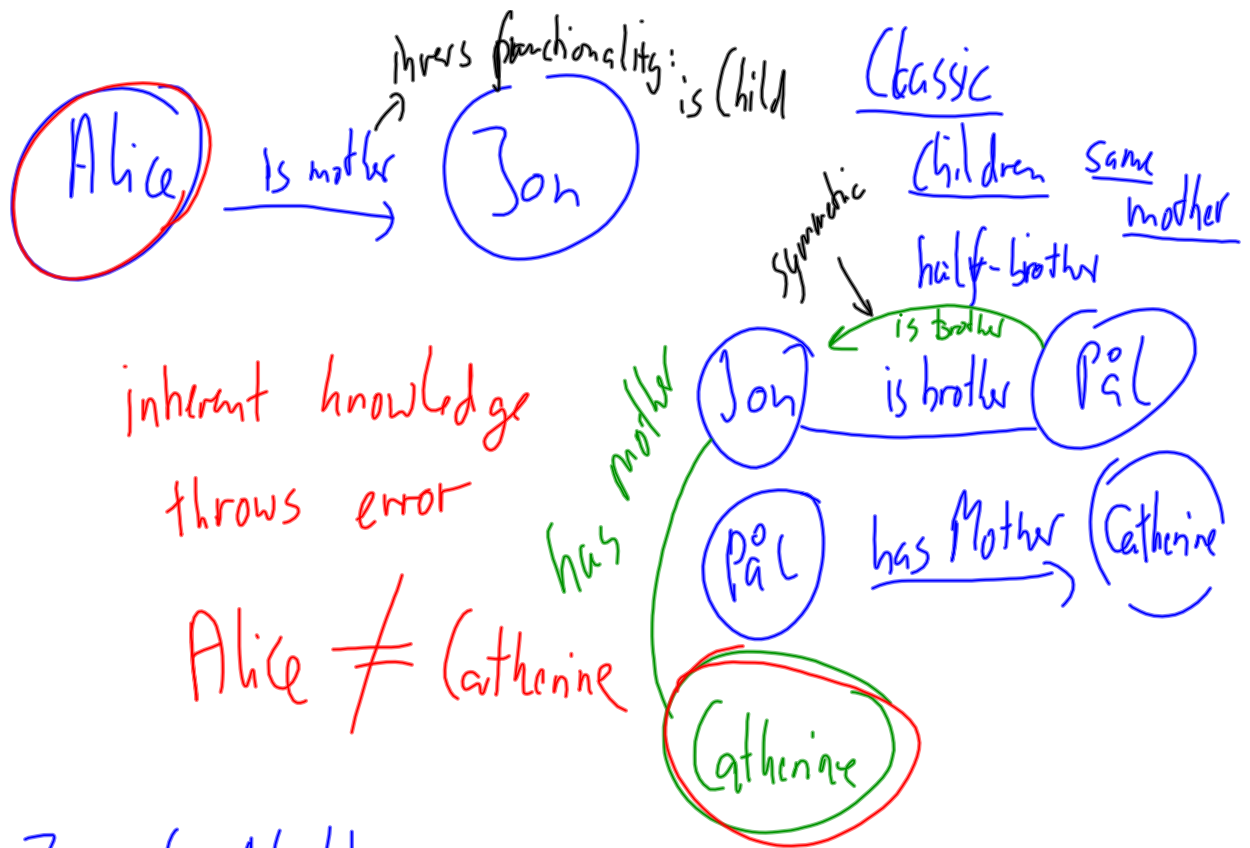
has component

Invers



belongs to

Jose ~~has father~~ → Vela → inverse function of has wheels
Javier ~~has father~~ → Vela



Josef. Noll

Josef Noll

Josef_ Noll

Josef Noll

Properties_Jose.pdf - Adobe Acrobat Pro Extended

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Create Combine Collaborate Secure Sign Forms Multimedia Comment

4 / 5 105% Find

Property characteristics

Handwritten notes:

- Peggy → Jean
- Margaret → Jean
- Jean ^{has mother} → Peggy
- 1. instance
- Not possible

☐ Functional
 ☐ InverseFunctional
 ☒ Symmetric *Transitive*
☒ Transitive

Handwritten note: Symmetric

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Internal reasoning's in Protégé

7ss ← Engines Jor
Hermit Pellets (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) ∧ Course(?c) → Study(?s,?c)

"internal" properties
→ implications

*1 Help SWRL Query = SQWRL
n 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)

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Assignment:

- José ~ internal reasoner
 - enhance knowledge
 - finding errors
- ALL: execute rules ~ upgrade ~ Protege 4.2
simple → complex

- ALL: programming application
API usage

Outcome: shortcomings of SWRL

