

Enhancing the Collaborative Ontology Development with Web 2.0 Features

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Social Semantic Web: Where Web 2.0 Meets Web 3.0
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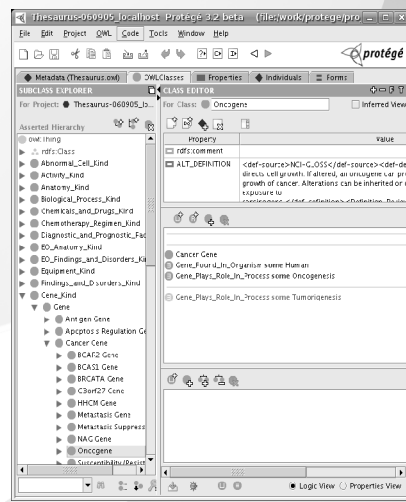
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The Protégé ontology editor

- Free, open source ontology editor and knowledge-base framework
- Protégé 3 (OWL 1.0, RDF(S), Frames, DB backend)
- Protégé 4 (OWL 2.0, import/export to several formats)
- Java-based, plug-in architecture
- Strong community: over 118.000 users

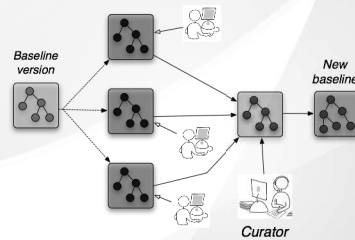
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The NCI Thesaurus collaborative development process

Reference ontology for cancer biology, translational science, and clinical oncology

- Simultaneous editing in Protégé clients
- Custom UI for restricting user input and enforcing business rules
- Development cycle begins after baseline
- ~20 full-time editors making changes; 1 “lead editor” who approves the changes, and assigns new tasks



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Tool Requirements

- Tools for discussion and reaching consensus
 - annotate components and, maybe, changes
 - have as an integral part of the development process
- Context for discussions on modeling decisions
- Record of changes and associated discussions and controversies
- Provenance and trust
 - support concept histories
 - have ways establish trust and credibility
- Personalized views of an ontology based on:
 - user's role and tasks
 - user's level of expertise
 - user's trust network

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Tool Requirements (cont.)

- User roles and access control
 - fine-grained control for editing and viewing rights
- Flexible workflow support
 - configurable workflows
 - workflow-execution coupled with ontology development
- Support for different levels of expressiveness
- Scalability, reliability and robustness

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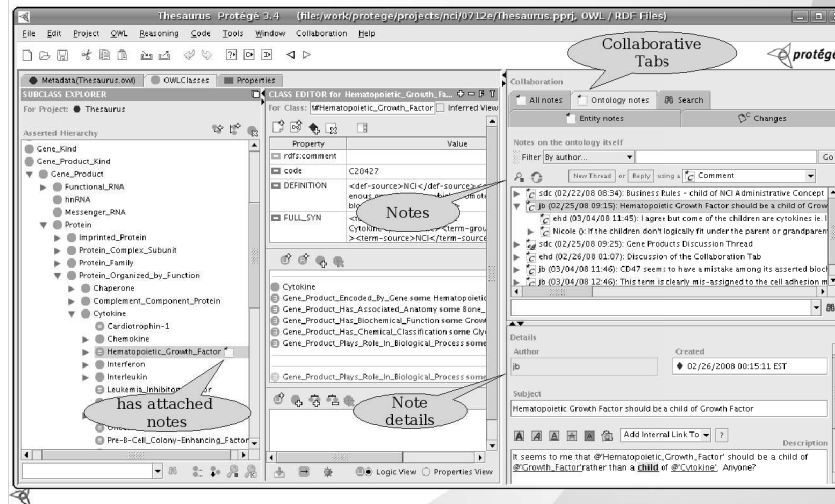
Collaborative Protégé Features

- Extension of existing Protégé system
- Support for:
 - attaching notes to ontology components and changes in the ontology
 - discussion threads
 - proposals and voting
 - searching and filtering
 - defining users, groups, policies
- Works in Protégé 3.x OWL and Frames
- Available in multi-user and stand-alone modes
- Distributed with Protégé installation

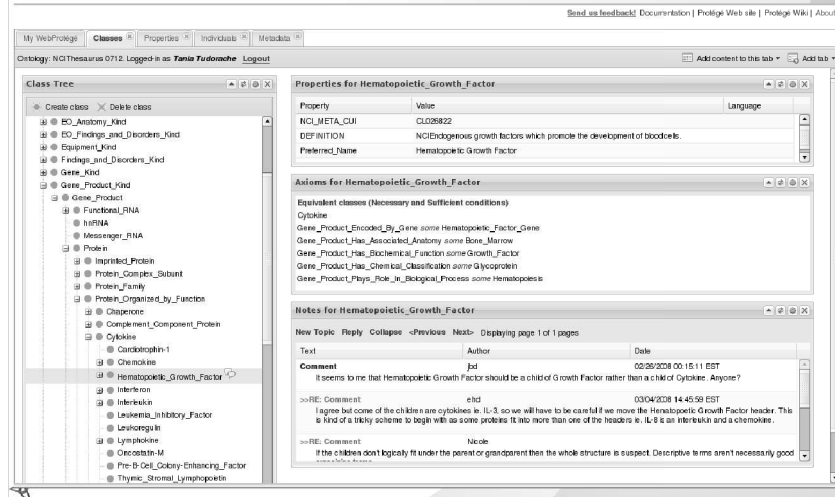
03/23/09 http://protegewiki.stanford.edu/index.php/Collaborative_Protege



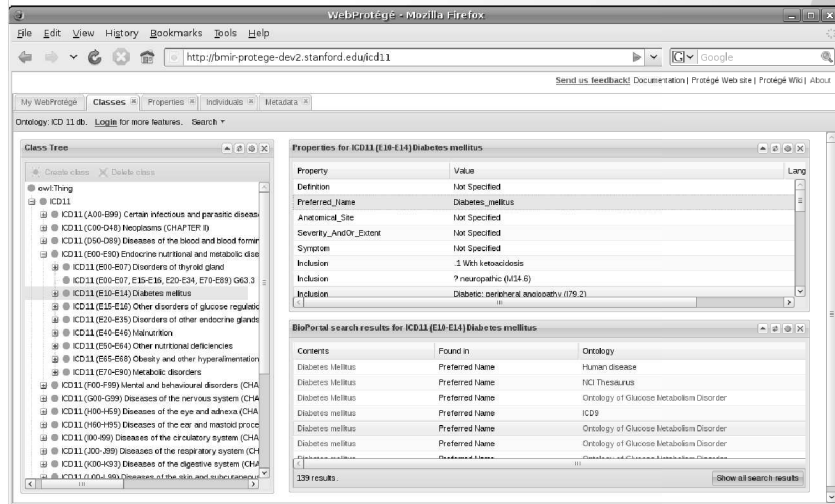
Collaborative Protégé GUI



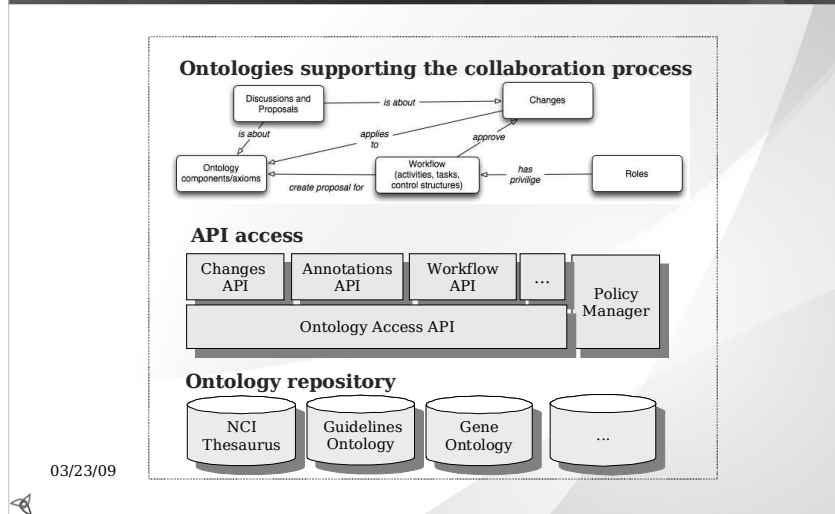
WebProtégé GUI – showing the NCI Thesaurus



Another configuration of WebProtégé



The Collaboration Framework



The Collaborative Framework + Clients

