## **Typology**

Latest: 20130614

## **Background**

The TopicQuests Topic Map is a graph structure which grows from a *rooted tree*. We call that rooted tree a *type system*, or a *typology*. The tree is built from programs which are called *bootstrap* programs. There is a core bootstrap, followed by bootstraps for different *topic map applications*. An example of a topic map application would be one in which specialty types are required, such as would be expected in the fields of biology and medicine.

To support specialty fields (applications) we create a core type for *ontologies*, into which ontologies can be imported. The National Cancer Institute's cancer ontology is a 36,000 class ontology which, when imported into the topic map, provides topics which come with *provenance* (sources, credentials) which make them valuable throughout the topic map.

As we create this tree, we put the name of the bootstrap in parens by each entry. Each *name* given here is actually the *locator* (unique identifier) for the topic. Each such topic likely has a *label* (it's display name) which reads the same or similar. Most locators are created with CamelCase characters; there are no spaces in locators. Many locators which belong to PropertyType also serve as *fields* in the Solr schema.xml, so they are not necessarily CamelCase.

Note that many of the (core) types really can be viewed as part of some topic map application. For instance, <code>IssueNodeType</code>, <code>ConNodeType</code>, <code>ProNodeType</code> and so forth are easily considered part of a structured conversation map. They were created in (core) since they always were part of the core vision for the topic map.

## **Types**

```
TypeType
                                                     (core)
     ClassType
                                                     (core)
           NodeType
                                                     (core)
                 TagNodeType
                                                     (core)
                 AvatarNodeType
                                                     (core)
                 BlogNodeType
                                                     (core)
                 ChallengeNodeType
                                                     (core)
                 ClaimNodeType
                                                     (core)
                 ConNodeType
                                                     (core)
                                                     (core)
                 ConversationMapNodeType
                 EssayNodeType
                                                     (core)
                 EvidenceNodeType
                                                     (core)
                 GuildNodeType
                                                     (core)
                 IssueNodeType
                                                     (core)
                 MicroblogNodeType
                                                     (core)
                 OrganizationNodeType
                                                     (core)
                 PerspectiveNodeType
                                                     (core)
                 PositionNodeType
                                                     (core)
```

	ProNodeType		(core)
	ProjectNodeType		(core)
	ResourceNodeType		(core)
	SolutionNodeType		(core)
	SummaryNodeType		(core)
	ThemeNodeType		(core)
	QuestNodeType		(core)
	VirtualNodeType		(core)
	ClusterNodeType		(core)
	Carrot2Cluster	edNodeTyne	(core)
	CitationNodeType	canoactype	(biblio)
	GraphType		(core)
		(Note1)	(core)
	AnnotationType	(Note)	
	ClusterType		(core)
	BlogPublicationType		(biblio)
	BookPublicationType		(biblio)
	DatabasePublicationType		(biblio)
	JournalPublicationType		(biblio)
	NewspaperPublicationType		(biblio)
	OtherPublicationType		(biblio)
	PatentPublicationType		(biblio)
	ReportPublicationType		(biblio)
	WebpagePublicationType	$(Note^2)$	(biblio)
	WikiPublicationType		(biblio)
	MicroblogPublicationType		(biblio)
RelationType			(core)
	MergeAssertionType		(core)
	PossibleMergeAssertionType	e	(core)
	UnMergeAssertionType		(core)
	CausesRelationType		(relations)
	ExplainsWhatRelationType		(relations)
	ExplainsWhyRelationType		(relations)
	ExplainsHowRelationType		(relations)
	IsAnalogousRelationType		(relations)
	IsNotAnalogousRelationType	_	(relations)
	AgreesWithRelationType	<del>-</del>	(relations)
	-		
	DisagreesWithRelationType		(relations)
	UsesRelationType		(relations)
	ImpliesRelationType		(relations)
	EnablesRelationType		(relations)
	ImprovesOnRelationType		(relations)
	ImpairsRelationType		(relations)
	AddressesRelationType		(relations)
	SolvesRelationType		(relations)
	IsPrerequisiteForRelation	Type	(relations)
	PreventsRelationType		(relations)
	ProvesRelationType		(relations)
	RefutesRelationType		(relations)

<sup>1</sup> AnnotationType: should be moved to WebResourceType?
<sup>2</sup> WebpagePublicationType: compare to WebResourceType, etc

```
IsEvidenceForRelationType
                                               (relations)
     IsEvidenceAgainstRelationType
                                               (relations)
     IsConsistentWithRelationType
                                               (relations)
     IsExampleOfRelationType
                                               (relations)
     RespondsToRelationType
                                               (relations)
     IsSameAsRelationType
                                               (relations)
     IsDifferentToRelationType
                                               (relations)
     IsOppositeOfRelationType
                                               (relations)
     IsMetaphorRelationType
                                               (relations)
     IsSimilarToRelationType
                                               (relations)
     SharesIssuesWithRelationType
                                               (relations)
OntologyType
                                               (core)
RuleType
                                               (core)
     MergeRuleType
                                               (core)
RoleType
                                               (core)
                                               (relations)
     IdeaRoleType
     IdeologyRoleType
                                               (relations)
     MethodRoleType
                                               (relations)
     NaturalPhenomenonRoleType
                                               (relations)
     OpinionRoleType
                                               (relations)
     PredictionRoleType
                                               (relations)
     ProblemRoleType
                                               (relations)
     ScenarioRoleType
                                               (relations)
     SoftwareRoleType
                                               (relations)
                                               (relations)
     SolutionRoleType
     TheoryRoleType
                                               (relations)
UserType
                                               (core)
     SystemUser
                                               (core)
     UnknownUserType
                                               (core)
     ForeignUserType
                                               (core)
     AgentType
                                               (core)
           MergeAgentType
                                               (core)
           HarvestAgentType
                                               (core)
           Carrot2AgentUser
                                               (core)
ResourceType
                                               (core)
     WebResourceType
                                               (core)
     BookmarkType
                                               (core)
LegendType
                                               (core)
ScopeType
                                               (core)
     MergeRuleScopeType
                                               (core)
     ThemeType
                                               (core)
     HarvestScopeType
                                               (core)
EventType
                                               (core)
PropertyType
                                               (core)
     locator
                                               (core)
     createdDate
                                               (core)
     lastEditDate
                                               (core)
     creatorId
                                               (core)
```

label	(Note <sup>3</sup> )	(core)
details	(Note <sup>4</sup> )	(core)
_version_	(Note <sup>5</sup> )	(core)
subOf		(core)
instanceOf		(core)
restrictions		(core)
isPrivate		(core)
largeIcon		(core)
smallIcon		(core)
isTransclude		(core)
tuples	6.	(core)
tuplesR	(Note <sup>6</sup> )	(core)
tupleObject		(core)
tupleObjectType		(core)
tupleSubject		(core)
tupleSubjectType		(core)
tupleSubjectRole		(core)
tupleObjectRole		(core)
tupleTheme	,	(core)
tupleSig	(Note <sup>7</sup> )	(core)
scopes		(core)
psi		(core)
resourceURL		(core)
mergeReasonRules		(core)
mergeList		(core)
mergetuple		(core)
backlinks		(core)
graphconlist		(core)
graphparent		(core)
graphrelnlist		(core)
endingDate	(Note <sup>8</sup> )	(core)
originLabel	(Note)	(core)
originLocator		(core)
startingDate familyName		
firstName		(core) (core)
middleNames		(core)
nameAppendages		(core)
nicnames		(core)
clusterMembers		(core)
CTUSCETTIEIINETS		(COTE)

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<sup>&</sup>lt;sup>3</sup> label: a very complex *field* in Solr. the *label* as defined here is for English labels; there is a collection of *label<lang>* fields for other languages; TopicQuests code tries to pay attention to the language code submitted with data and select the appropriate label field.

<sup>&</sup>lt;sup>4</sup> details: what was said for *label* holds for *details*; this is a language-sensitive field in Solr

<sup>&</sup>lt;sup>5</sup> \_version\_: we define it for purposes of paying attention to it in the code, but Solr creates this field and manipulates it; we must be aware of it since it is a field which will be returned when a topic is fetched from Solr <sup>6</sup> tuplesR: *tuples* is a list of unrestricted (public) tuples associated with a topic; *tuplesR* is a list of tuples which are either not public, or are connected to topics which have restrictions

<sup>&</sup>lt;sup>7</sup> tupleSig: a tuple, theoretically speaking, can have a *semantic signature* which allows for comparison among tuples, looking for similarities, analogies, etc.

<sup>&</sup>lt;sup>8</sup> originLabel: NOTE: might be subject to language issues

clusterNodeMembers	(core)
clusterWeight	(core)
affiliations	(biblio)
authors	(biblio)
doi	(biblio)
isbn	(biblio)
issn	(biblio)
journalNumber	(biblio)
journalTitle	(biblio)
journalVolume	(biblio)
languages	(biblio)
pages	(biblio)
rights	(biblio)
publDate	(biblio)
pubTypes	(biblio)
publisher	(biblio)