



The GOLEM Ontology for Narrative and Fiction

Graphs and Ontologies for Literary Evolution Models

A 5-year (2023-2027) research project funded by the European Commission (ERC StG)

Federico Pianzola, Franziska Pannach, Xiaoyan Yang, Luotong Cheng, Luca Scotti



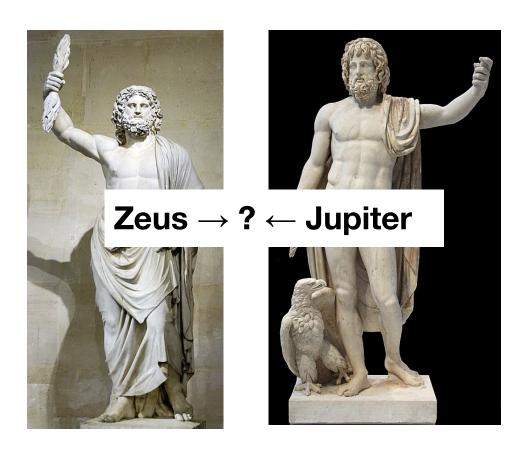


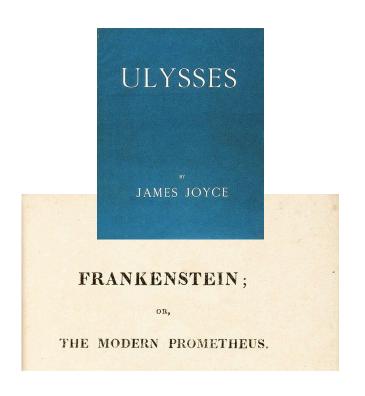
What is a formal ontology

and why do you need one?

A formal ontology is a structured and standardized representation of information.

Variants of characters and stories' traits





Example: RQ → ontology

RQ: what are the most common narrative locations for Italian sci-fi novels published in the 21st century?

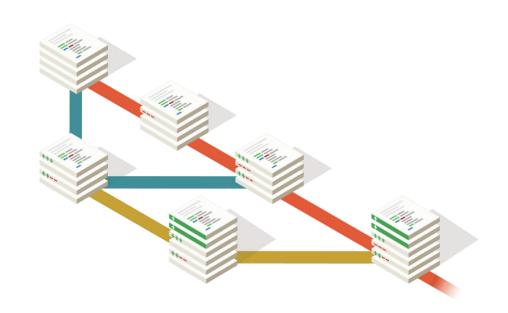
```
locations → gc:G13_Narrative_Location
Italian → schema:inLanguage
sci-fi → schema:genre
21st century → schema:datePublished
novel → crm:E55_Type
```

GOLEM project's research goals

RQ1: How do story traits spread, become successful, disappear?

RQ2: Which narrative strategies have a stronger impact on readers?

Data: Fanfic communities of readers and writers who reinterpret stories and further transmit modifications of them



A tool to support comparative literary studies















It should (minimally) express:

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- 7. The **provenance** of each statement about characters should be clear.

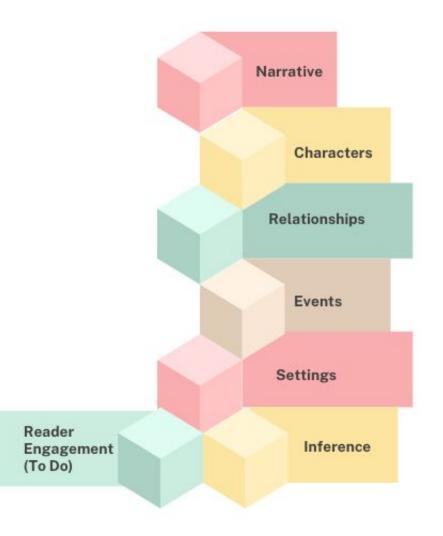
GOLEM Ontology Modules

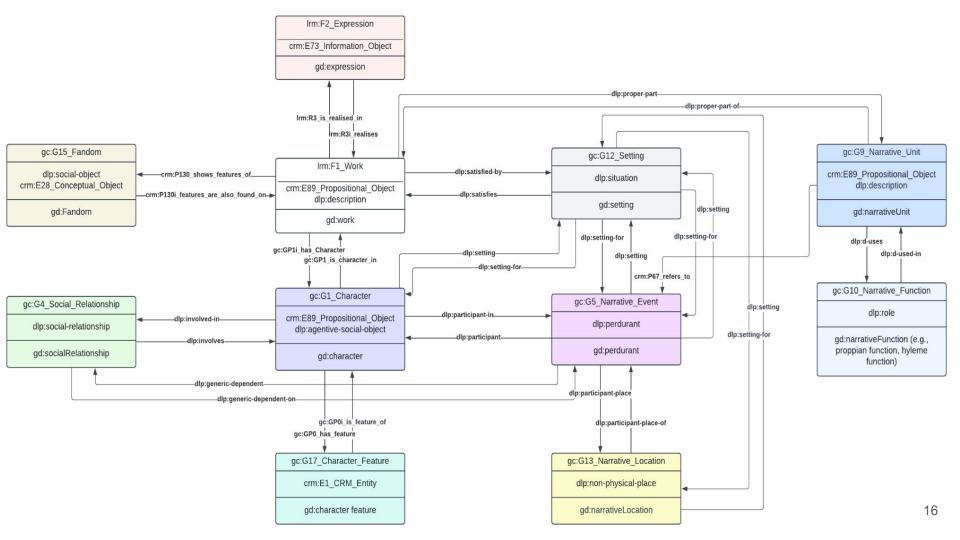
Description:

https://ontology.golemlab.eu/

https://github.com/GOLEM-lab/golem-ontology/wiki







Basis of the GOLEM ontology



DOLCE

(Descriptive Ontology for Linguistic and Cognitive Engineering)





Schema.org

Representing characters in the GOLEM

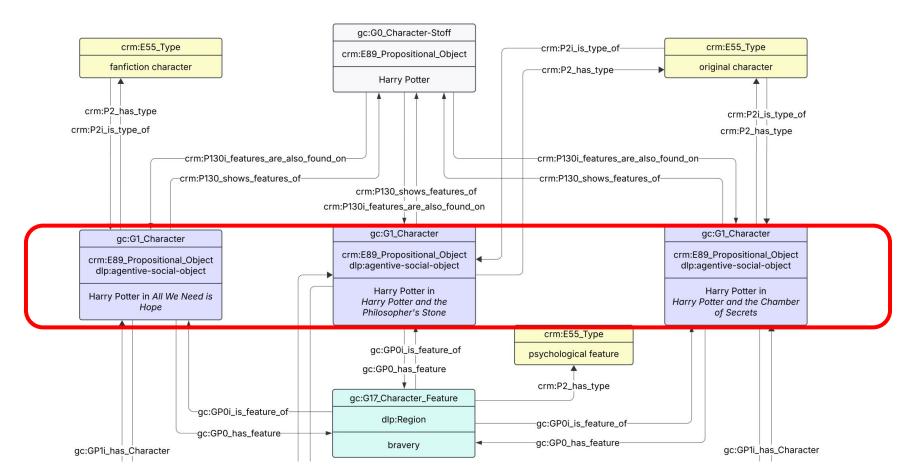
 The GOLEM ontology models characters as evolving narrative entities whose identities, traits, and relationships transform across canonical and fan-generated texts.

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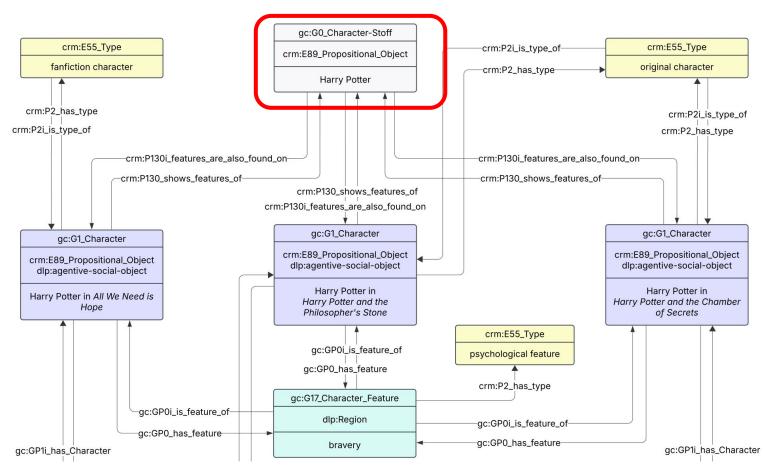
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- Two-level character modeling strategy:
 - G1_Character: Individual character instantiation in a work
 - G0_Character-Stoff: Broader conceptual entity linking various instances of characters appearing in single works

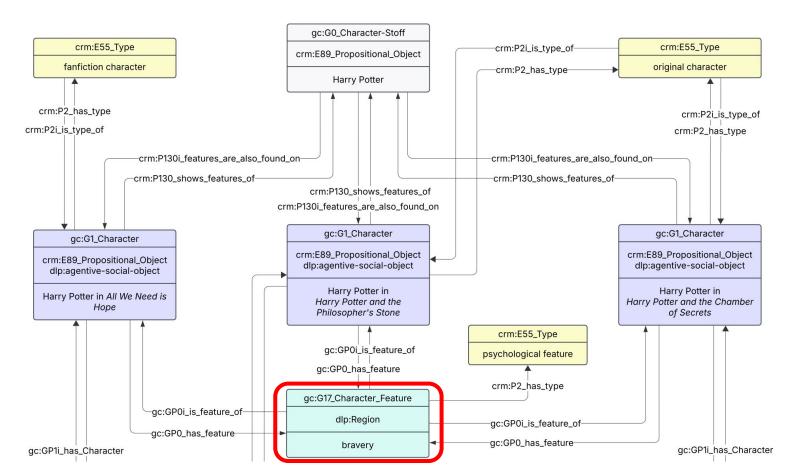
Characters in works



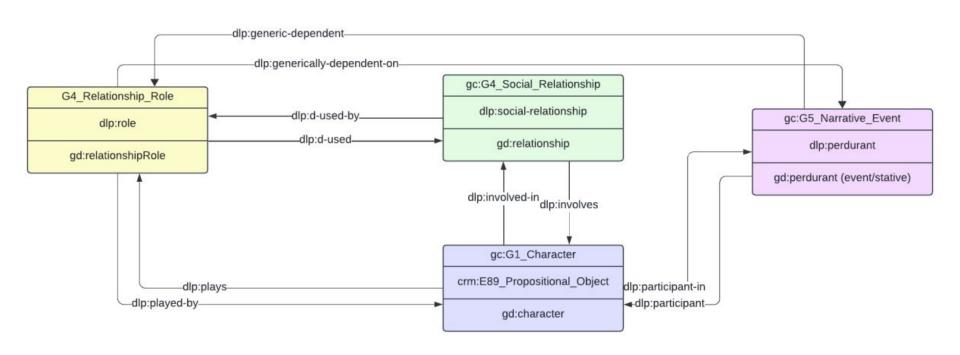
Character-Stoff



Character traits



Relationships between characters



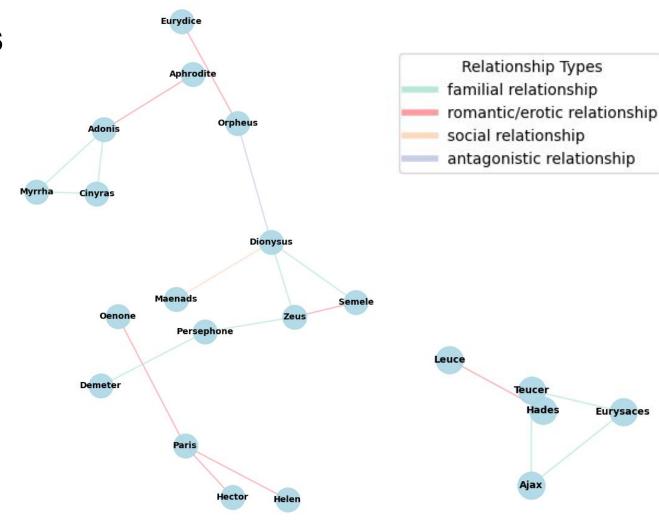
Characters linked to the same Character-Stoff

	Story Title	Character
0	(Appearing Like Images of Dreams)	Clytaemnestra, Cassandra
1	A Heavy Responsibility	Teucer, Ajax, Eurysaces
2	Poplar Tree	Hades, Leuce
3	Requiem	Achilles, Paris, Hector, Patroclus
4	The Face That—	Achilles, Paris, Hector, Helen
5	The gods know revenge	Oenone, Paris
6	Twice-Born	Semele, Zeus, Dionysus
7	Ugly Beauty And A Restless Love	Demeter, Zeus, Persephone
8	When the Myth is Over	Eurydice, Maenads, Orpheus, Dionysus
9	Who Weeps?	wild pig, Cinyras, Aphrodite, Adonis, Myrrha

Relationships between characters

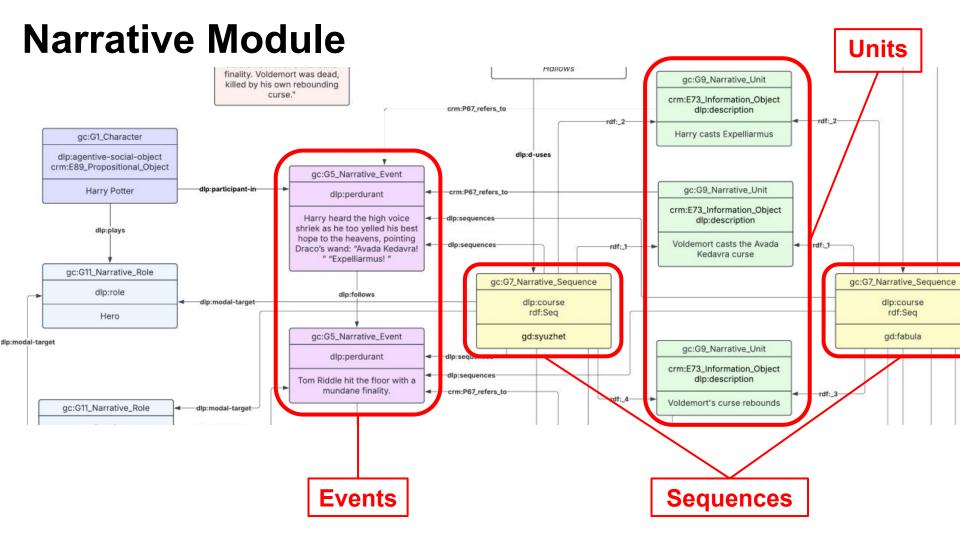
	Character 1	Character 2	Relationship	Relationship Role
0	Orpheus	Dionysus	Orpheus enemy of Dionysus	antagonistic relationship
1	Dionysus	Orpheus	Orpheus enemy of Dionysus	antagonistic relationship
2	Cinyras	Adonis	Adonis son of Cinyras	familial relationship
3	Adonis	Cinyras	Adonis son of Cinyras	familial relationship
4	Myrrha	Adonis	Adonis son of Myrrha	familial relationship
79	Maenads	Dionysus	Maenads followers of Dionysus	social relationship
80	Achilles	Patroclus	Patroclus closest companion of Achilles	social relationship
81	Patroclus	Achilles	Patroclus closest companion of Achilles	social relationship
82	Patroclus	Achilles	Patroclus companion of Achilles	social relationship
83	Achilles	Patroclus	Patroclus companion of Achilles	social relationship
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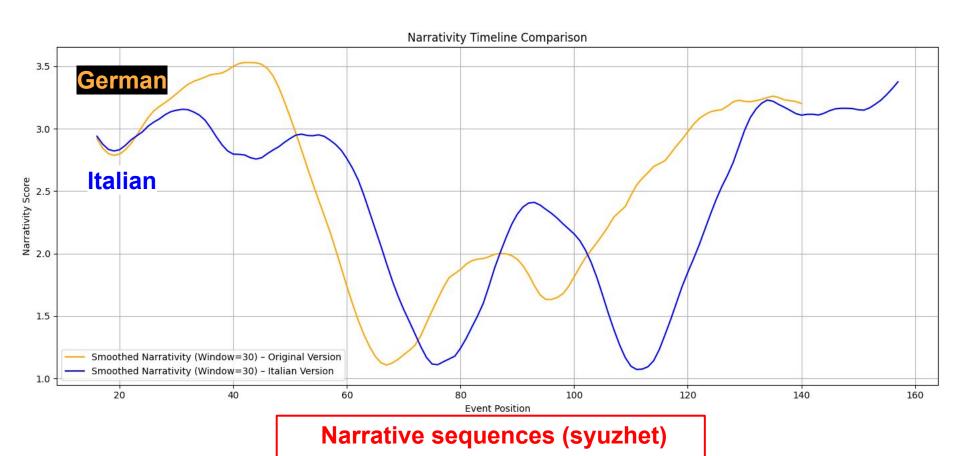


Eurysaces

Narrative Module gc:G14_Narrative-Stoff dlp:social-object Work crm:E89_Propositional_Object crm:P130_shows_features_of Voldemort dies as his own Irm:F2_Expression curse rebounds and the Elder Wand's loyalty to Harry. "Harry heard the high voice shriek as he too yelled his best hope to the heavens, pointing **Expression** Irm:F1_Work -Irm:R3_is_realised_in-Draco's wand: "Avada Kedavra! dlp:d-uses "Expelliarmus! "... Tom Riddle Harry Potter and the Deathly hit the floor with a mundane finality. Voldemort was dead, gc:G9_Narrative_Unit killed by his own rebounding curse." crm:E73_Information_Object crm:P67_refers_to dlp:description rdf:_2-Harry casts Expelliarmus qc:G1_Character dlp:d-uses dlp:agentive-social-object crm:E89 Propositional Object qc:G5 Narrative Event dlp:participant-in qc:G9_Narrative_Unit Harry Potter -crm:P67_ref dlp:perdurant Sequence Unit crm:E73_Information_Object Harry heard the high voice dlp:description shriek as he too yelled his best dlp:plays hope to the heavens, pointing Voldemort casts the Avada dlp:sequences rdf:_1-Draco's wand: "Avada Kedavra! Kedavra curse " "Expelliarmus! " gc:G11_Narrative_Role qc:G7_Narrative_Sequence qc:G7 Narrative Sequence dlp:follows dlp:modal-target dlp:course dlp:course rdf:Sea rdf:Sea Hero gc:G5_Narrative_Event gd:syuzhet gd:fabula dlp:modal-target qc:G9_Narrative_Unit dlp:perdurant Event crm:E73_Information_Object dlp:sequences dlp:description Tom Riddle hit the floor with a mundane finality. crm:P67_refers_tordf: 3rdf:_4-Voldemort's curse rebounds gc:G11_Narrative_Role → dlp:modal-target dlp:modal-target dlp:role crm:P67_refers_todlp:follows Villain dlp:particient-in gc:G9_Narrative_Unit gc:G5_Narrative_Event dlp:plays rdf:_3dlp:sequences crm:E73_Information_Object dlp:perdurant dlp:description gc:G1_Character dlp:sequences Voldemort was killed by his Voldemort falls backward and dlp:d-uses dlp:agentive social-object own rebounding curse. crm:E89_Propositional_Object qc:G10_Narrative_Function Voldemort dlp:role Victory



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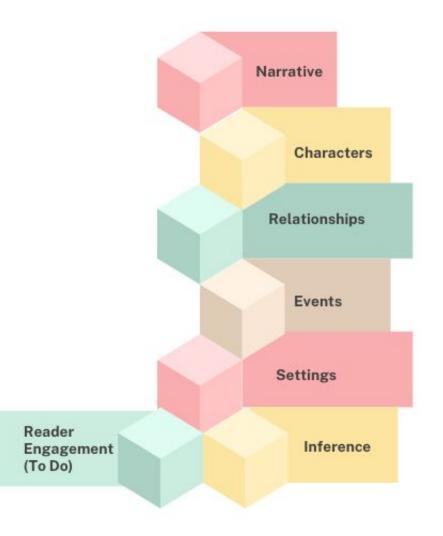
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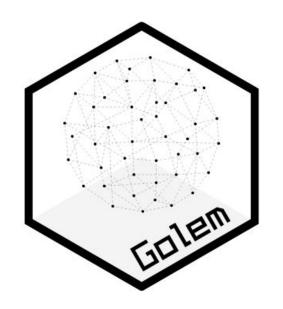
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Publications

- Pianzola, F. Cheng, L, Pannach, F., Yang, X., & Scotti, L. (2025). The GOLEM Ontology for Narrative and Fiction. *Humanities*, 14(10), 193; https://doi.org/10.3390/h14100193
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- Scotti, L., Pianzola, F., & Pannach, F. (2025). Grounding the development of an ontology for narrative and fiction. Semantic Web Interoperability, Usability, Applicability.
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 https://ceur-ws.org/Vol-3834/paper80.pdf
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 https://anr-kflow.github.io/semmes/papers2024/SEMMES 2024 paper 3.pdf



Thanks for your attention!

golemlab.eu github.com/GOLEM-lab







