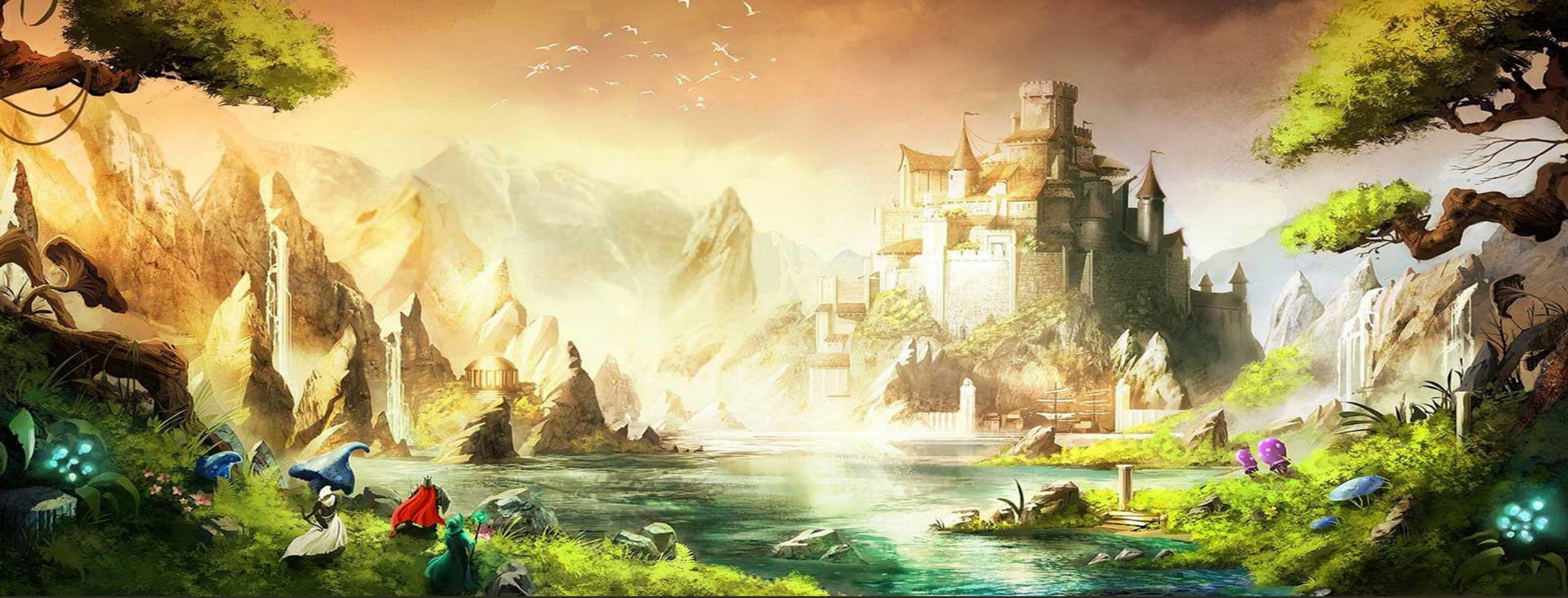Once Upon A Time...

FOLK AND FAIRY TALES ONTOLOGY

Yasar Mahomed Abbas

Franziska Pannach

Danielle Russell

Yuvika Singh

OBJECTIVE AND MOTIVATION

BACKGROUND

➤ Substantial part of oral history.

➤ Important role in the cultural heritage of regions, nations or cultural minorities.

➤ Grimm brothers

➤ African folk tales

AIMS

➤ African folk tales following

➤ Russian folklorist Vladimir Propp.

➤ The ontology contains:

❑ The Proppian functions and entities encoded within.

❑ Specic folk tale motifs according to the Aarne-Thompson-Uther Index (ATU).

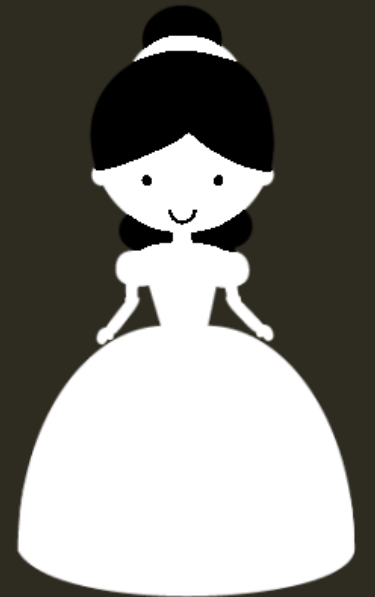# DOMAIN

MOTIFS INDICES

➢ Folk tales motifs are classified by two motif indices:

❑The Aarne-Thompson Uther index (ATU)

❑The Thompson-Motif-Index (TMI)

PROPP FUNCTIONS

➤ 4 Axioms:
1. The functions of characters
2. The number of functions known to the fairy tale is limited.
3. The sequence of functions is always identical.
4. All fairy tales are of one type in regard to their structure.

CONCEPTUALIZATION

DEFINITION OF THE ONTOLOGY

➢ Properties < C,I,A,R >

➢ c_i ∈ C set of Classes

➢ i_i ∈ I set of Instances

➢ a_i ∈ A set of Axioms

➢ r_i ∈ R set of Relations

ONTOLOGY DEMONSTRATION

UPPER LEVEL OF THE SUBCLASSES

LEVEL OF PROPPIAN FUNCTIONS AND THEIR SUBFUNCTIONS

LEVEL OF DRAMATIS PERSONAE

OBJECT PROPERTIES

DATA PROPERTIES

INDIVIDUALS ADDED TO THE ONTOLOGY

ANNOTATIONS

Metrics

Axiom	1860
Logical axiom count	1395
Declaration axioms count	462
Class count	201
Object property count	39
Data property count	10
Individual count	214
Annotation Property count	1
DL expressivity	SRIQ(D)

CONCLUSION

OVERVIEW

➤Sophisticated ontology

➤Proppian theory

➤Allows users to add more stories

➤Ontology can be alone standing or it can be connected to Declerck et.al.'s work

➤Long term:
❑ Modelling the relationship between the functions
❑ Dramatis Personae

FURTHER WORK

➢Adding more annotations

➢The more fairy tales of different origin added, the more and complex the deductions about the structure and verbalisation of African folk tales can be made.

➢Compare these findings about African folk tales to studies of folk tales of different origin

REFERENCES

BOOKS

The stories included in the ontology were cited from:

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*by **Harold Scheub**, University of Wisconsin Press, 2005*

➢ ***Bantu Folk Tales From Southern Africa***

*by **Phyllis Savoury**, Howard Timmins, 1974*

➢ ***Children Of Wax***

*by **Alexander McCall Smith**, Canongate, 1989*

➢ ***When Hippo Was Hairy And Other Tales From Africa***

*by **Nick Greaves**, Southern Book Publishers, 1997*

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➤ V. Propp, Morphology of the Folktale, vol. 10. University of Texas Press, 1968.

➤ S. Malec, "Autopropp: Toward the automatic mark-up, classification, and annotation of Russian magic tales.," in Proceedings of the First International AMICUS Workshop on Automated Motif Discovery in Cultural Heritage and Scientic Communication Texts (P. Lendvai, ed.), pp. 112{115, 2010.

➤ P. Lendvai, T. Declerck, S. Daranyi, and S. Malec, \Propp revisited: Integration of linguistic mark-up into structured content descriptors of tales," in Digital Humanities 2010, Oxford University Press, 7 2010.

➤ T. Declerck, L. Schäfer, and N. Koleva, \Integrated ontologies for the classification of folk tales." online, multiple presentations combined, 2017.

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