

# StoryMachine

Spatial Hypertext as a Tool for Contemporary, Transcultural Folkloristics



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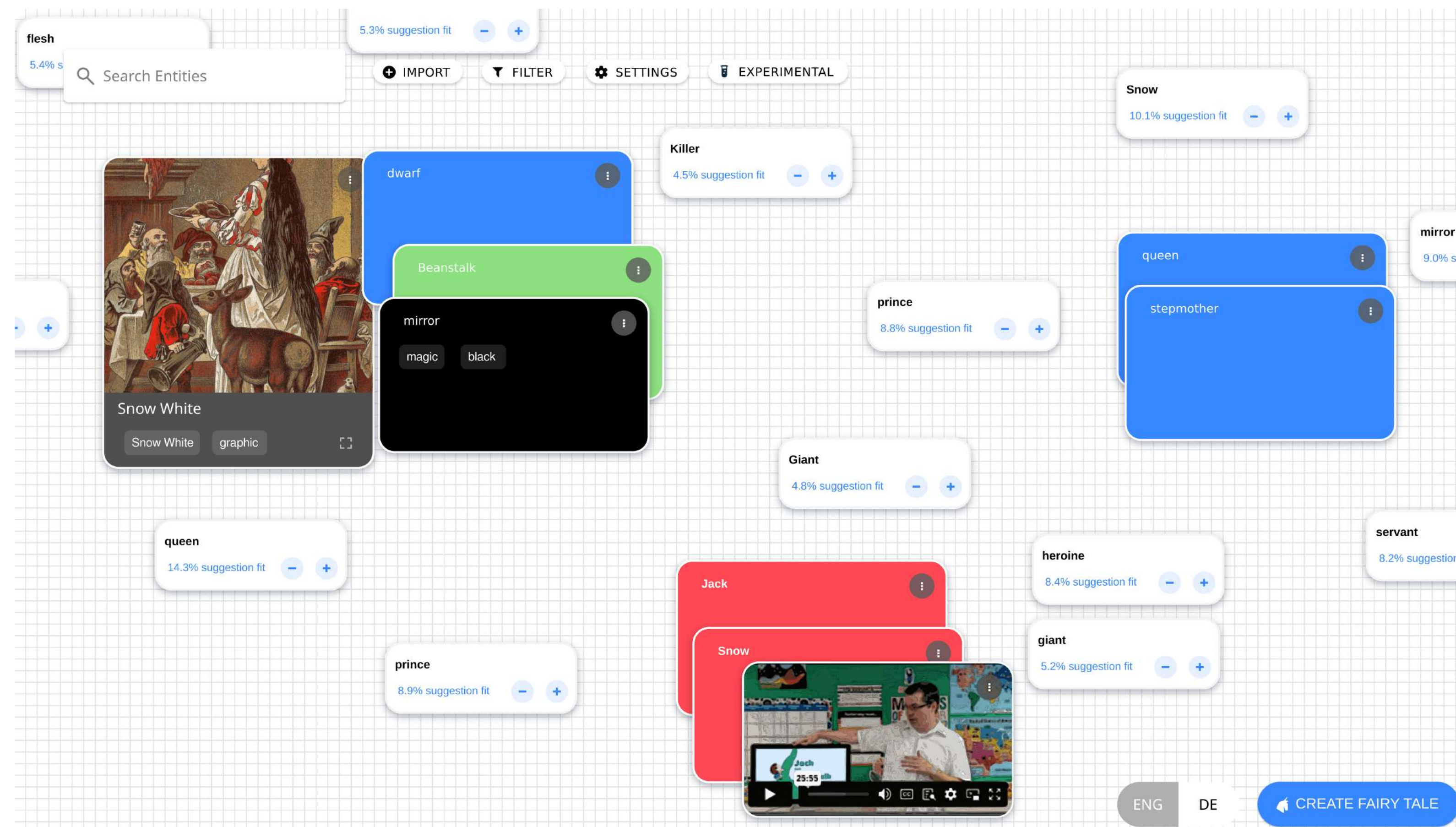
## Introduction

The transdisciplinary Digital Humanities project *StoryMachine*, conducted jointly (2025–2028) by six research groups in Germany and the UK, is developing an innovative digital infrastructure to preserve, explore, and democratize access to folklore traditions and vernacular storytelling practices around the world, with emphasis on German- and English-speaking communities. Recognizing folklore as a cornerstone of shared cultural identity, the project addresses critical challenges in archival practices, and particularly the lack of interactive, dynamic, access-



ible and inclusive tools for exploring both traditional and emerging folk narratives. Existing approaches to digital folklore archiving remain largely static, focusing on isolated collections without fostering meaningful exploration, collaboration, or analysis. *StoryMachine* redefines these paradigms by integrating spatial hypertext and recommender systems to create a visually dynamic, user-centered interface, which empowers users to actively participate in ongoing transregional, transcultural narrative practices while expanding previously dominant linear forms of storytelling to reflect the diversity and multifaceted nature of contemporary folklore.

## Spatial Hypertext-Oriented Recommender System (SPORE)



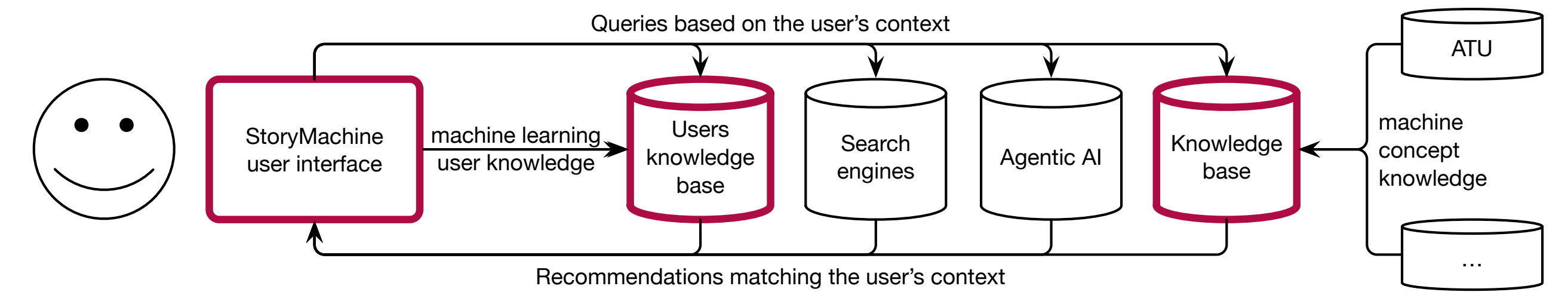
Early prototype of the user interface on which StoryMachine will be based, with nine user nodes (coloured items) and context-matching suggestions (white items) – screenshot taken from Roßner, Atzenbeck and Brooker [4].

## Early Results

Early insights from the first pilot studies, conducted at the University of Regensburg, highlight *StoryMachine*'s pedagogical and creative potential as well as adjustments needed to meet user requirements. Three qualitative interviews were carried out with participants representing two key user groups – creative practitioners and pedagogy professionals – who interacted with an early prototype of the SPORE framework. A mixed-method approach combining observations of Human-Computer Interaction with semi-structured interviews and content analysis of think-aloud protocols revealed generally positive engagement with the system's exploratory workspace and the integrated story generator component, which allows users to generate fairy tales based on the motifs collected in the workspace. The participating teacher

training specialist envisioned strong applicability in the secondary language and literature classroom, particularly for teaching narrative structures, genre theory and fairy tale characteristics, noting the value of incorporating folkloristic motifs. The creative practitioners emphasized *StoryMachine*'s potential to support inspiration, ideation, and serendipitous discovery in artistic workflows. Across all participants, however, consistent themes emerged: users expressed a preference for recommendations in the form of phrases or lemmata and suggested improvements for more intuitive search and add functions as well as more descriptive tutorials. These early findings provide actionable guidance for refining both interface design and recommendation strategies in subsequent development phases.

## System Architecture



Users construct spatial hypertext-based knowledge spaces through the *StoryMachine* interface, which so-called *spatial parsers* [5] analyse and convert internally into knowledge graphs. These graphs feed into a user knowledge base that aggregates collective user knowledge. Furthermore, the system transforms graphs derived from the parsers into queries across multiple information sources: user knowledge base, search engines, agentic AI components, or *StoryMachine*'s native knowledge base. The latter integrates transformed data from the Aarne-Thompson-Uther-Index [7], folklore publications, digital games, video, film, audio resources, and others, enabling comprehensive knowledge synthesis and retrieval.

## Approach

*StoryMachine* follows a multi-pronged, iterative development process involving its target communities of teachers, teacher-trainees, creative practitioners, cultural heritage professionals and wider publics in the platform design from the outset, committing to the multimodal and participatory ethos of contemporary digital scholarship [6]. Its interdisciplinary framework, drawing on methods from folklore studies, digital humanities, narrative studies, psychology, and computer science, advances research at the intersection of storytelling, identity, and technology.

Aligning with Harvilahti's call for motif indexes to evolve beyond typological rigidity [3], *StoryMachine* aims to integrate folkloristic data-

bases, multimedia texts and catalogues like the Aarne-Thompson-Uther Index [7] alongside ethnographically collected data into SPORE, a 'Spatial Hypertext-Oriented Recommender System' [1, 4], which is a newly developed application based on the principles and cognitive workings of spatial hypertext augmented by Artificial Intelligence (AI) – see Figure on the left. By critically engaging with motif analysis, digital storytelling practices, and the psychological dimensions of Human-Computer Interaction (HCI), the project introduces a co-creative, emergent model for exploring folklore traditions from orally transmitted fairytales through popular media fiction, algorithmic folklore and meme culture [2].

## Bibliography

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