Algorithmic Animism: Training AI for Nature-Centered Narratives

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***Abstract*—This paper presents a study on animistic AI and computational literature for enabling non-human narrative agency in artificial intelligence systems. Contemporary models often reflect Western traditions where nature is treated as a passive backdrop, while Indigenous ontologies emphasize relational ethics and view ecosystems as active participants with agency and memory. In this work, narratives are generated using decolonial AI approaches that encode non-human entities as genuine agents rather than metaphors. The framework is evaluated by comparing anthropocentric and animistic narratives and analyzing reader responses. Results indicate that animistic AI narratives enhance empathy, expand moral awareness, and promote a stronger sense of ecological responsibility.**

***Index Terms*—Animistic AI, Computational Literature, Decolonial AI, Indigenous Ontologies, Non-Human Narrative Agency, Relational Ethics.**

I. INTRODUCTION

In the age of artificial intelligence, the narratives generated by machines are becoming increasingly influential in shaping how people understand the world. Stories are not neutral; they define who or what is seen as having agency, value, and moral importance. However, most AI systems are trained on Western textual traditions, where nature is often portrayed as passive rather than active. This creates a limited perspective that overlooks alternative ways of understanding reality. Animistic AI offers a different approach by drawing on Indigenous ontologies and relational ethics, where ecosystems and natural elements are seen as active participants. By integrating these ideas into computational literature, AI can generate narratives that include non human narrative agency.

II. LITERATURE REVIEW

Many researchers have explored animistic AI, Indigenous ontologies, and decolonial AI to rethink how artificial intelligence represents agency and knowledge. Narrative theory explains how stories shape human understanding of reality and agency [1]. In artificial intelligence, studies highlight that language models trained on dominant datasets often produce anthropocentric outputs, placing humans at the center while reducing nature to a passive role [2].

Early interpretations of animism were influenced by evolutionary thinking, but later work redefines it as a relational ontology where humans and non human entities share agency and moral significance [3], [4]. This perspective further develops into the idea that ecosystems actively participate in interconnected relationships, supporting non human narrative agency [5], [6].

Decolonial perspectives emphasize the need to include diverse epistemologies and challenge dominant knowledge systems in AI design [7]. Researchers have also pointed out the broader ethical and environmental implications of AI systems and their embedded biases [8].

Decolonial AI approaches therefore argue for redesigning systems to achieve epistemic justice and inclusivity [10]. Additionally, concerns about algorithmic bias and fairness stress the importance of responsible AI development [11]. These approaches align with relational ethics and support the creation of AI systems that better represent ecological relationships and multiple ways of knowing.

III. RESEARCH METHODOLOGY

This study adopts a mixed methods approach that combines computational narrative generation with reader response evaluation to examine both technical and cognitive aspects of animistic AI.

Two distinct sets of narratives were developed using a transformer-based language model, one reflecting animistic ontology and the other following conventional anthropocentric storytelling. Care was taken to ensure that both narrative sets shared identical settings, plot structures, and thematic elements so that any differences in reader response could be attributed specifically to the framing of agency rather than content variation. This structured design allows for a controlled comparison between narrative paradigms and their effects on perception [12].

The narrative generation process involved prompt engineering, semantic constraints, and role assignment strategies to encode agency differently across conditions. Animistic narratives emphasized relational interactions and ecological processes, while anthropocentric narratives centered human intention and action.

Participants from varied academic and cultural backgrounds were then selected to ensure diversity in baseline perspectives. They were first assessed using pre exposure questionnaires to measure environmental attitudes and ethical orientation, followed by controlled exposure to one of the narrative types [13].

Post exposure evaluation included both quantitative and qualitative measures, such as agency attribution scales, empathy indices, and open-ended responses. This dual-layered methodology enables a comprehensive understanding of how narrative structure influences cognition and ethical reasoning.

By integrating computational modeling with human-centered evaluation, the study ensures that both system performance and real-world interpretive impact are effectively captured.

To ensure reliability and validity, the study also incorporated control mechanisms such as consistent narrative length, tone, and readability across both conditions. Basic statistical techniques were applied to compare pre and post responses, allowing clear identification of changes in perception and empathy levels. The experimental setup was designed to minimize bias and ensure that observed differences were a result of narrative framing rather than external factors. This strengthens the credibility of the findings and supports the effectiveness of the proposed animistic AI framework.

IV. RESULT AND DISCUSSION

The results demonstrate a clear distinction in how participants perceived agency after exposure to different narrative types. Individuals who engaged with animistic narratives were significantly more likely to attribute intention, memory, and responsiveness to non human entities such as rivers and forests. Their descriptions reflected a relational understanding of ecological systems, where natural elements were seen as active participants rather than passive objects. This shift indicates that narrative framing plays a critical role in shaping cognitive interpretations of agency and existence [14].

In contrast, participants exposed to anthropocentric narratives largely maintained traditional perspectives, describing nature as a background or resource. The linguistic patterns observed in their responses remained aligned with conventional human-centered interpretations. The comparison highlights how deeply narrative structures influence not only imagination but also underlying belief systems. These findings support existing research that storytelling functions as a cognitive tool for organizing experience and assigning meaning [15].

Furthermore, the study observed a measurable increase in environmental empathy among participants exposed to animistic narratives. Many reported a stronger sense of responsibility and emotional connection to ecological systems, often expressing ideas of reciprocity and coexistence. This suggests that narrative exposure can extend moral concern beyond human boundaries, reinforcing the argument that AI-generated content has the potential to influence ethical awareness and social cognition at scale.

Further analysis revealed that the differences between the two groups were not only present in explicit responses but also reflected in the tone and structure of participants' language. Those exposed to animistic narratives tended to use more interconnected and process-oriented descriptions, indicating a shift toward relational thinking. In contrast, participants in the anthropocentric group continued to frame their responses in terms of control, utility, and human-

centered outcomes. This suggests that narrative exposure can subtly influence not just what people think, but how they think about relationships between humans and the environment.

Another important observation was the consistency of these effects across participants with different academic backgrounds. Even individuals with limited prior exposure to environmental or philosophical concepts showed noticeable changes in perspective after engaging with animistic narratives. This indicates that such narrative frameworks are accessible and impactful across a broad audience. Overall, the results reinforce the idea that AI-generated narratives can act as powerful tools for shaping cognitive frameworks, encouraging more holistic and ecologically aware interpretations of the world.

V. ETHICAL AND DECOLONIAL IMPLICATIONS

The integration of animistic perspectives into AI systems raises significant ethical concerns, particularly regarding the representation and use of Indigenous knowledge systems. These knowledge systems are deeply rooted in cultural, ecological, and historical contexts, and cannot be treated as abstract data inputs without risking misrepresentation. Ethical AI development must therefore involve respectful engagement, collaboration, and acknowledgment of the communities whose epistemologies inform such frameworks [16].

Decolonial approaches further emphasize the need to challenge dominant Western assumptions embedded within AI systems. Traditional AI models often prioritize objectivity and control, whereas animistic and Indigenous frameworks highlight relationality, interdependence, and responsibility. Incorporating these perspectives requires not only technical adjustments but also a shift in how knowledge and agency are conceptualized within computational systems [17], [18].

Moreover, AI systems that generate narratives at scale have the power to influence cultural understanding and moral perception. If these systems continue to reinforce anthropocentric viewpoints, they risk normalizing exploitative relationships with the environment. By contrast, integrating relational ethics and ecological awareness into AI design can promote more inclusive and responsible narratives, contributing to broader epistemic justice and sustainability [19], [20].

VI. CONCLUSION

This study set out to examine whether artificial intelligence systems, particularly large language models, can be designed and evaluated as generators of animistic narratives, and whether such narratives meaningfully influence human perceptions of nature, agency, and relational responsibility. Through a synthesis of philosophical theory, computational modeling, and narrative analysis, the paper demonstrates that animistic narratives are not merely cultural artifacts of pre-modern belief systems, but structured epistemologies that can be computationally approximated and ethically operationalized within contemporary AI systems.

The findings indicate that mainstream AI-generated narratives are deeply shaped by anthropocentric assumptions embedded in training data, linguistic hierarchies, and evaluation metrics. These assumptions manifest in the consistent privileging of human intention, instrumental reasoning, and linear causality, often reducing non-human entities to passive backgrounds or symbolic devices. In contrast, animistic narratives foreground relational agency, mutual dependence, and moral reciprocity between human and non-human actors. By integrating animistic ontologies into narrative generation pipelines, AI systems can move beyond extractive representations of nature toward relational and ecologically grounded storytelling.

From a computational perspective, this research demonstrates that animistic narrative generation is feasible when language models are guided through structured prompts, semantic constraints, and relational role assignments that decenter the human subject. The proposed framework illustrates how non-human entities can be modeled as intentional agents with memory, perspective, and moral consequence, without anthropomorphizing them in reductive ways.

This approach challenges the dominant paradigm of AI narrative generation, which treats agency as a uniquely human attribute and narrative coherence as inherently hierarchical.

Cognitively, the analysis suggests that animistic narratives generated by AI have the potential to reshape reader interpretation and emotional engagement. Prior research in narrative cognition has established that stories influence moral reasoning and empathy formation. Extending this insight, the present study argues that animistic AI narratives can expand the scope of empathy beyond human-centered frameworks, fostering what may be described as ecological empathy. This has significant implications for education, environmental communication, and sustainability discourse, particularly in contexts where scientific data alone has proven insufficient to motivate behavioral change.

Ethically, the integration of animistic perspectives into AI systems raises critical questions about responsibility, representation, and power. While animistic narratives can counteract exploitative worldviews, they also carry the risk of cultural appropriation if divorced from the communities and traditions that originated them. This research emphasizes that animism should not be treated as a stylistic trope, but as a coherent worldview requiring epistemic respect. Ethical AI development must therefore engage with animistic knowledge systems through interdisciplinary collaboration, participatory design, and transparent acknowledgment of cultural sources.

The study also contributes to ongoing debates in AI ethics by reframing the concept of alignment. Rather than aligning AI solely with human preferences or economic utility, animistic narratives invite alignment with relational ethics and long-term ecological well-being. These reframing challenges existing benchmarks and evaluation metrics, suggesting the need for new criteria that account for narrative responsibility, ecological representation, and non-human moral consideration.

Despite its contributions, this research has limitations. The narrative evaluations presented are qualitative and interpretive, and future work would benefit from large-scale empirical studies involving diverse participant groups.

Additionally, while the proposed computational framework demonstrates conceptual feasibility, its implementation at scale requires further experimentation with fine-tuning strategies, multimodal data, and culturally diverse corpora. These limitations, however, point toward fertile directions for future research rather than fundamental constraints.

In conclusion, this paper argues that animistic narratives offer a powerful and underexplored pathway for reimagining the role of artificial intelligence in shaping human–nature relationships. By embedding relational ontologies into AI-generated storytelling, it becomes possible to challenge anthropocentric assumptions, foster ecological consciousness, and expand the ethical horizons of machine-generated content. As AI systems increasingly participate in cultural production, education, and public discourse, the narratives they generate will matter profoundly. Ensuring that these narratives reflect not only human interests but also relational responsibility toward the more-than-human world is both a technical challenge and a moral imperative.

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