

Reimagining Knowledge Practice as Worlding-with: Experiments of a Spider-Researcher

This paper reimagines knowledge from the perspective of critical posthumanism and new materialism in response to the limitations of dominant educational paradigms. In modern education, knowledge has largely been understood as the representation of an external world by an autonomous and bounded human subject. Such a view presumes a clear separation between subject and object, mind and matter, and positions knowing as an internal cognitive achievement located within the individual. However, in the context of contemporary challenges—including rapid technological transformation, ecological crisis, intensifying socio-economic inequality, and political fragmentation—this representational and human-centered understanding of knowledge proves increasingly insufficient. These conditions demand not only new forms of knowledge but also a fundamental reconsideration of what knowledge is and how it comes into being.

Drawing on posthuman and new materialist thought, this paper argues that knowledge should instead be understood as a situated, relational, and material practice of “worlding-with.” From this perspective, knowing does not occur within the isolated mind of a human subject, nor does it aim to mirror an external reality. Rather, knowledge emerges through ongoing entanglements among human and more-than-human actors, including bodies, technologies, environments, affects, and infrastructures. Knowing is thus a process of participating in the world’s continuous becoming, rather than a detached act of observation. It is through these entangled processes that meanings, relations, and possibilities are generated and reconfigured.

This argument is developed through two research-experiments conducted by the authors as “spider-researchers,” a figure that conceptualizes inquiry as a situated, partial, and relational practice of sensing, connecting, and responding from within the world. The first research-experiment engages an inquiry community oriented toward ecological transformation in education, exploring knowledge generation as a participatory and diffractive process. The second examines a collaborative inquiry into future education policy, in which generative AI is engaged as a companion species, foregrounding the more-than-human conditions of thinking and knowledge production. Rather than serving as empirical cases to be represented, these

experiments function as sites of entanglement through which knowledge is enacted and reconfigured.

This shift entails a fundamental rethinking of key assumptions in educational theory and research. First, it challenges the individualist notion of the knowing subject by emphasizing that subjects are not pre-given entities who produce knowledge, but are themselves constituted through relational and material processes. Second, it disrupts the conventional separation of ontology and epistemology by proposing an onto-epistemological view in which knowing is inseparable from being and becoming. Third, it calls into question binary divisions such as human and nonhuman, culture and nature, and language and materiality, highlighting instead the dynamic and co-constitutive relations that shape knowledge practices.

Understanding knowledge as worlding-with also transforms how inquiry is conceptualized. Inquiry is no longer a method for extracting or representing knowledge about a pre-existing world. Instead, it becomes a situated practice of engaging with, responding to, and intervening in the world from within. Such inquiry requires attentiveness to contingency, openness to the unexpected, and a willingness to be affected by the relations in which one is entangled. Knowledge production, in this sense, is not a linear or controlled process, but an emergent and ongoing reconfiguration of relations. It is collective rather than individual, distributed rather than centralized, and inseparable from ethical considerations of responsibility within entanglements.

This reconceptualization carries significant implications for curriculum. If knowledge is understood as a practice of worlding-with, curriculum can no longer be reduced to the transmission of predefined content or the achievement of predetermined outcomes. Instead, it becomes an open-ended, processual, and experimental space in which learners engage with human and more-than-human others. Learning involves cultivating sensitivities to relational entanglements, developing capacities for response-ability, and participating in the ongoing reconfiguration of the world. Curriculum, therefore, is not something that can be fully designed and implemented in advance, but something that continuously emerges through interactions, encounters, and events.

From this perspective, the purpose of education shifts from producing knowledgeable individuals to fostering relational and ethical capacities. Learners are invited not only to understand the world, but to participate in its transformation through their engagements with others. This involves developing an awareness of entanglement and the capacity to imagine and enact alternative ways of living and knowing beyond dominant frameworks.

Ultimately, this paper contributes to ongoing debates on knowledge and curriculum by offering a posthuman reconfiguration of knowledge practices. It argues that education must move beyond human-centered and representational models of knowledge and instead embrace knowledge as an embodied, relational, and more-than-human practice of worlding-with.