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# The multispecies perspective in library and information science

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## Abstract

**Introduction.** Library and information science (LIS) has predominantly focused on human-centric systems and organisations. However, a growing movement is now exploring the role of nonhumans in shaping the sciences and practices of information. This paper introduces the emerging field of multispecies information science, which expands LIS by recognising the contributions of animals, plants, landscapes and other nonhumans to information creation and transformation.

**Approach.** The theoretical foundation of multispecies information science is rooted in posthumanism, critical animal studies and multispecies ethnography. Influential scholars such as Donna Haraway have challenged human exceptionalism, promoting an inclusive approach to human/nonhuman and nature/society relations while addressing the complexities of researching in the Anthropocene. In the field of LIS, Marcia Bates's evolutionary perspective frames information as a thread woven through life, offering one of the most inclusive viewpoints towards other living species. The author also draws on their empirical research in human–companion animal information experiences to further expand the multispecies movement within the field.

**Findings.** Through the literature, there are stories not only of information scholars but also of the animals around them – stories that challenge, inspire and deepen their understanding of LIS. This manuscript highlights how other-than-human species, including antelopes, gorillas, birds, seeds, dogs and cats, have shaped LIS theories and practices.

**Originality/value.** This paper encourages interdisciplinary collaboration and challenges LIS to embrace a shift toward a multispecies movement that is inclusive, ethical and sustainable. It fosters a deeper understanding not only from a human perspective but also from larger assemblages that include humans alongside other beings.

## The interconnected web of life and information

Library and information science (LIS) seeks to understand life through the lens of information. For over 100 years, it has primarily focused on documents, systems and, ultimately, humans. However, humans represent only a small fraction of life on Earth. They have long shared their existence with a vast array of others – animals, plants, fungi, microbes and landscapes. Together, these beings form larger assemblies of many species and materials, collectively referred to as the more-than-human.

Today, LIS is broadening its scope to include nonhuman animals (see Solhjoo, 2024; Solhjoo et al., 2023; Hartel, 2023; Lueg, 2024). This shift reflects a growing commitment to understanding the diverse beings that (in)form the world alongside humans – living, loving and learning together (Solhjoo, 2024). From Suzanne Briet's bold question, '*Is an antelope a document*?' (1951, English translation, 2006) to Marcia Bates' articulation of the '*red thread of information*' (1999), this paper introduces a new narrative of information science.

What is presented here is an intellectual voyage where the red thread of information weaves through the lives of all creatures, great and small. Through the collected stories of information scientists and their work alongside other species, this piece offers a compassionate perspective and inspires new avenues for thinking and working in LIS.

## Foundations of the multispecies turn

The rationale for the turn towards multispecies information science stems from recent intellectual developments in the humanities and social sciences. These include the posthumanist thinking of Donna Haraway (2008, 2016) in defining concepts such as becoming-with, making kin, companion species and natureculture.

Multispecies studies fall under the posthuman research umbrella but focus specifically on the relationships and entanglements of multiple species. This field is related to the concept of '*becoming-with*' other species, which is pertinent for exploring the phenomenology of nonhuman animals (Pacini-Ketchabaw et al., 2016). While posthumanism provides valuable epistemological insights, it is not a blueprint for multispecies research. Instead, multispecies research offers a more nuanced approach, embracing the relational and ethical dimensions of human and nonhuman interactions (Taylor, 2012; Livingston and Puar, 2011). Notably, Donna Haraway's work, especially *When species meet* (2008), is foundational for understanding the animal turn in posthumanist thinking. Haraway challenges human exceptionalism, arguing that our existence is always intertwined with other species beyond mere utility. The multispecies turn represents an ethical and postlinguistic perspective, advocating for nuanced connections between the lived experiences of humans and nonhumans (Haraway, 2008).

The animal (species) turn in humanities, as a theoretical and methodological approach explored by scholars like Weil (2010), Kirksey and Helmreich (2010), and Livingston and Puar (2011), centres on how various organisms, including humans, co-create social worlds. This approach goes beyond the human-centric view, treating animals and other nonhuman beings as active participants and agents in the creation of social and ecological networks. It recognises the agency of nonhuman species and seeks to understand the mutual ecologies and co-becomings that arise from human-nonhuman interactions (Pacini-Ketchabaw et al., 2016). The multispecies perspective, as a metatheory, has already developed in disciplines like anthropology, education, feminism, psychology, health, geography, social work and urban design. It challenges the notion of humans holding exclusive pivotal roles within sociocultural systems and instead advocates for equal attention to broader, more-than-human entities.

LIS, as a meta-discipline, serves various areas ranging from the arts and humanities to the sciences, from academia and professions to everyday life and leisure activities. When LIS scholars and

professionals focus on specific domains or subjects, they integrate them into the research and practices of libraries, archives, museums and systems to address the needs of social worlds more effectively. However, there have been many privileges in information literature and practices. Most of the developments in research and practice have been tailored for employed, non-Indigenous, able-bodied, heterosexual men. Informed by theories of queer studies, disability studies, critical race theory and postcolonialism, recent information studies highlight the importance of many other life forms as fundamental to LIS research and practice.

Theorists in LIS, such as Marcia Bates (2002, 2005, 2022), have laid the groundwork by incorporating evolutionary perspectives and examples from the animal world into discussions of human information behaviour. In the contemporary information world, there are areas of established systems and services that acknowledge the interconnectedness between human and nonhuman entities, blurring the lines of human/animal/plant taxonomies in various contexts such as cities, zoos, farms, universities, hospitals, labs and more. Jenna Hartel (2019) identified seven '*turns*' that have taken place in LIS. What is interesting is her reflection: she imagined what the next turns would look like, and she thought of the animal turn and family turn. She was proposing exploring information literature and practices not only from a human perspective but from larger assembles that includes humans with others. Yet, the multispecies turn has been slower to manifest within the information disciplines compared to other social sciences.

Multispecies information science has argued for an animal turn to explore new frontiers in information, its use and design (Solhjoo et al., 2023). It is an emerging metatheory that goes beyond the human-centred focus of LIS and instead highlights the interconnectedness of humans and more-than-human agents in shaping information ecosystems. However, there remains a gap in recognising and defining the multispecies approach to navigate new directions in LIS. There is a need to embrace and explore this perspective to better advocate for equal attention to broader, more-than-human entities within a variety of natureculture contexts.

For all readers, what this paper hopes to accomplish is a shift in perception. It provides a multispecies story for engaging with an inclusive and holistic universe of information, one that recognises the diversity of species and materials and their intricate relationships with us, as human animals.

## The contribution of antelopes, gorillas, birds, seeds and many others

It is fascinating to examine how nonhuman species have shaped the theories and practices of LIS, particularly through the lens of documentation. By exploring the interplay of natural, cultural and informational dimensions throughout history, scholars have expanded the understanding of documents and the processes that shape them. One can trace a lineage of thought from Suzanne Briet's iconic '*antelope*' metaphor to contemporary investigations of multispecies interactions within LIS, challenging human-centric notions of text and broadening the scope of what constitutes a document.

Briet's 1951 work, *What is documentation*? set the stage for reimagining documentation by proposing that a wild antelope becomes a document once it is captured and contextualised within an institutional framework such as a zoo or museum. This notion emphasised that documentation is not inherent in an object but arises from its integration into systems of knowledge and inquiry. Just as a wild antelope transitions into a document when removed from its natural habitat and placed within systems of human classification and study (e.g., zoos or museums), documentation is shaped by the contexts in which it is situated.

Building on Briet's ideas, scholars such as Robert Pagès, Mike Buckland, Donald F. McKenzie and Marc Kosciejew have examined how nonhuman entities – animals and plants – serve as a more active participants in the documentation process.

- Donald F. McKenzie (1931-1999) was a New Zealand expert in historical bibliography. According to Buckland (2018), McKenzie's *Dog-Stone* highlights how objects tied to cultural narratives, such as an Aboriginal Australian stone associated with legendary territorial dogs, acquire documentary significance. McKenzie's work, like Briet's, challenges the boundaries of what qualifies as documentation by incorporating nonhumans and their associated narratives as valid texts.

- Michael Buckland expanded upon Briet's ideas in his influential theory of '*Information as Thing*' (1991), drawing inspiration even from nonhuman entities. The presence of dead birds in a museum prompted him to reflect on how such objects could be considered documents and make connections between museums and libraries (Buckland, 2017). His dead bird libraries analogy showcases the transformation of objects into repositories of knowledge through human interpretation.

- Robert Pagès, a student of Briet, built on her framework with greater specificity. In his thesis, *Transformations documentaires et milieu culturel* (1947), Pagès elaborated on the idea of the 'autodocument,' referring to entities like gorillas, which inherently speak for themselves. He distinguishes between unique objects and specimens representing a type. A gorilla is a primary document when viewed as an individual, but it becomes a specimen representing its species when seen through the lens of classification. This duality highlights the tension between individuality and classification, as animals can be seen in multiple ways depending on the context.

- Ron Day (2018, 2024) proposed that nonhuman entities are active participants in documentation processes, possessing expressive and communicative capacities. This approach shifts the focus from human-centred documentation to recognising agency in nonhumans. By focusing on '*powerful particulars*', or entities that inherently serve as self-evidential signs, Day emphasises that animals and other beings possess expressive and communicative capacities, making them active participants in documentation processes.

- Marc Kosciejew (2020) developed seeds as '*natureculture*' documents, combining genetic information with human cultural practices. He highlights how seeds, preserved in seedbanks, can serve as both evidence of a plant's past existence and guidelines for future growth, adaptation and use. By materialising genetic information, seeds embody time in a physical form, making future ecological and agricultural possibilities tangible. This connection between time, genetics and information is what makes seeds an active agency in the documentation process.

- Geir Grenersen (2016) has commented on the human–animal relationship through information lens, in the case of the Indigenous knowledge way of knowing and doing of Sámi people and reindeer herds in northern Norway. He explains how information activities and knowledge transfer between humans and reindeers are crucial in sustaining the Sámi way of life.

Together, these scholars highlight the impact of nonhuman species on LIS. Through their interactions and contributions with other species, the distinction between human and nonhuman entities becomes increasingly blurred, emphasising the active role of animals and other species in the creation and transformation of knowledge. Whether through cultural narratives, museum collections or ecological interactions, these scholars argue that the boundaries of documentation extend far beyond traditional written texts to encompass the living, material world around us.

As an empirical study on information experience, I adopt a multispecies perspective to explore the everyday lives of multispecies families (Solhjoo, 2024). I have studied families that consider cats and dogs as family members and investigated the relationality between humans, nonhumans and space through visual digital ethnography, utilising live videos, walking interviews with animals and animal photo diaries. My findings reveal how animals and humans become informed by one another through: 1) cognitive process, as intersubjective ways of knowing; 2) affective and emotional information flows in emplaced environments; and 3) embodied interactions (Solhjoo et al., 2024).

These findings underscore the profound ways in which animals and humans mutually inform and transform one another's lives, challenging traditional anthropocentric views of information and knowledge creation. The evolution of these ideas has paved the way for a deeper understanding of the intricate and dynamic relationships that define multispecies information science.

## Discussion: a call for ethical and inclusive information science

The key contributions of the multispecies turn include its timely exploration in LIS, the solid and profound research it presents, and the support and validation from prominent authors and theorists in the field. It clearly compares itself with other theoretical standpoints (including embodiment, sociomateriality and posthumanism), and plays a role in introducing boundary-pushing ideas into the literature and practices of LIS:

- Multispecies information science illustrates how interactions between humans and other life forms have historically influenced the development of information theories, practices and epistemologies.

- Drawing on diverse disciplines, including information behaviour, documentation, information technology and knowledge organisation, multispecies information science expands as a metatheory, offering a new lens in LIS.

- The multispecies turn reframes how we define information actors and agency, as all entities within an environment become companion species that provide and use information. It also aligns with Indigenous knowledge systems, which emphasise the interconnectedness of all living beings and are rooted in the understanding of humans' deep connection to their land and water.

- The multispecies turn highlights alternative approaches to understanding subjectivity, showcasing studies that inspire creativity, participatory methods and sensory engagement in research methodologies.

- A multispecies perspective explores the ethical dimensions of diversity, equity and inclusivity in information practices, drawing attention to the need for care ethics and compassionate approaches that transcend species boundaries. It has philosophical roots in questioning the moral status of nonhumans and advocating for compassion based on the whole of nature's capacity to suffer.

As an emerging turn, the multispecies paradigm invites LIS scholars and practitioners to engage in a collective reimagining of the discipline. This emerging subfield underscores the urgency of addressing the ecological and ethical challenges of our time while enriching the theoretical and practical foundations of LIS. By expanding the discipline's scope to include multispecies perspectives, the animal turn not only advocates for a more inclusive and compassionate approach to information but also opens new frontiers for interdisciplinary research and innovation. As this turn continues to evolve, it calls on the LIS community to embrace its potential to address the complexities and opportunities of living and learning in a more-than-human world.

## Conclusion

This piece traces the footprints of animals in LIS and highlights the growing recognition of the interconnectedness between human and nonhuman species within the field. By examining the contributions of scholars who have expanded the scope of documentation beyond human-centred frameworks, the paper demonstrates how animals, plants and other nonhuman entities actively participate in the creation and transformation of knowledge. As the field continues to evolve, the integration of the multispecies perspective offers new opportunities for interdisciplinary research, ultimately fostering a more compassionate and comprehensive understanding of information in the world around us.

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