The responsible media representation of artificial intelligence for non-human animal communication (proposal)

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Abstract

The body of research on the ethical, legal, and social implications of artificial intelligence for non-human animal communication is growing. However, one area that has not yet been explored is how the outcomes of these technologies should be responsibly represented in the media and how such portrayals influence public awareness, support for conservation efforts, and anthropocentric assumptions about intelligence. This project will examine risks such as speciesism, including human exceptionalism, the polarization of public discourse, Disneyfied stereotypes, and unintentional encouragement for ecotourism. As an alternative, it proposes animal-interest framing and explores multispecies justice cinema as alternative strategies for more ethical portrayals. By proactively developing guidelines for responsible media practices, the research project aims to ensure that the representations of breakthroughs in AI for non-human animal communication serve the interests of animals and broader conservation goals. This proposal will address potential risks of problematic framing of the research outcomes by journalists, discuss alternative representational strategies, and briefly outline the methodology of the PhD research project.

1 Introduction

Initiatives like the Cetacean Translation Initiative (CETI) and the Earth Species Project (ESP) aim to decode non-human animal communication through machine learning and various robotic technologies (12)(7). In November 2024, ESP introduced NatureLM-audio, an audio-language model designed specifically for animal vocalizations and sounds (13). It can identify individual animals within recordings and even recognize patterns in the vocalizations of species it has not previously encountered. NatureLM-audio is a significant step towards a future in which humans can decode non-human animal communication with machine learning. The technology has the potential to disrupt existing philosophical paradigms rooted in anthropocentric beliefs about language and intelligence.

Scholars have begun to pay greater attention to the ethical concerns of this technology and its potential risks to animals. Ryan and Bossert raise several issues, including: the risk of anthropomorphism, the right to privacy for animals, the potential emotional and cultural harm to animal communities, "technological solutionism": solving anthropogenic threats to animals with new technological tools rather than addressing the root causes, the potential ineffectiveness for nature conservation, and the risk of projecting gender biases onto other animals (17). Rodríguez-Garavito, Gallant, and Crow warn that while this technology has the potential to be used to understand non-human animals, it can simultaneously be used to exploit and harm them. Artificial intelligence can increase the speed and scale of the exploitation of non-human animals. They propose pillars for an ethical foundation for non-human animal communication technologies, among which is the prioritization of the animal's interest (15). In addition, Gruber and Beguš from the CETI project, together with Rodríguez-Garavito

and Nemeth, recently published a paper exploring the legal impact of AI for non-human animal communication (14).

While the body of research on the ethical, legal, and social implications of AI for non-human animal communication is growing, one area that has not yet been explored is how the outcomes of these technologies should be responsibly represented in the media and how these portrayals impact the public perception of other animals. As Adams argues in *Picturing the Beast* (1), media representations of animals are the only access most people have to animals. The impact of this technology on conservation efforts partially depends on its media portrayal. This proposal will explore three specific concerns, namely, the risk of speciesism, including human exceptionalism, the risk of polarization, and the potential Disneyfied stereotyping by journalists, which could drive ecotourism. In my PhD project, I aim to develop guidelines for the responsible representation of animals in media coverage of AI for non-human communication, grounded in multispecies justice theory. This leads to the following research question: What media practices can maximize the positive impact of AI for non-human animal communication on conservation efforts and public understanding of animal intelligence, while minimizing potential harms to animals and the natural world?

2 Conceptual Framework

2.1 Human exceptionalism and speciesism

Without careful framing, public discourse is at risk of defaulting to human exceptionalism, positioning human intelligence as the highest standard rather than recognizing that each species possesses forms of intelligence uniquely adapted to its environment. As Nibert (11) argues in *Origins of Oppression, Speciesist Ideology, and the Mass Media*, mass media often reinforce and normalize the existing structures of oppression and speciesist ideologies that marginalize non-human animals. Media representations of research outcomes from ESP or CETI may generate unintended framings, such as reinforcing speciesist hierarchies, e.g. placing whale intelligence "closer" to human intelligence. This framing could fuel the discourse that certain animals can be exploited because their intelligence is perceived as further removed from humans, granting some species more moral consideration than others.

2.2 Polarization of public discourse

Although the topic of AI for non-human animal communication does not yet appear polarized, researchers and media professionals should carefully consider how they frame the research to ensure it does not become entangled in existing polarized debates. Online debates around polarized topics often take place within echo chambers, where only a small portion of the content reaches across ideological divides. Even when opposing groups encounter the same visual material, their emotional responses are often opposed, which reflects their pre-existing ideological alignments (16).

Projects such as the Earth Species Project and Project CETI aim to reshape our relationship with nature and encourage reflection on humanity's responsibility to care for the planet and all its inhabitants by showing that we are not the only species with intelligence and communication systems (12)(7). Their research would function as a moral appeal for increased environmental and conservation awareness. Translating scientific findings into a moral message inevitably involves framing. When a message unintentionally triggers a politically charged frame (9), individuals may respond in line with their existing ideological positions, potentially reinforcing polarization. Regarding AI for non-human animal communication, further research is needed to assess the risk that certain framings of the research could activate ideological responses associated with resistance to environmental action or skepticism toward scientific institutions. It is crucial to understand how different narrative strategies influence whether the technology bridges or deepens existing ideological divides.

2.3 Disneyfied stereotypes and ecotourism

Another risk that needs to be taken into account when developing narrative strategies for animal communication research is the Disneyfied stereotyping of animals in media (6)(20). The term Disneyfication is derived from the portrayal of animals in Disney movies, but the process can be found within all forms of media (10). Often animals are turned into entertaining characters, and in doing so, are anthropomorphized, stereotyped, and oversimplified. Journalists and other media practitioners

frequently assign strong positive or negative characteristics to particular species in order to provoke emotional responses and create sensational narratives. For example, sharks are often portrayed as evil, and accidents involving them receive disproportionate media coverage. This stereotype overshadows their ecological importance and reduces public willingness to support conservation efforts (6)(20). While Disneyfied framing of animal communication research might generate enthusiasm, it risks flattening scientific nuance. It could produce sensationalist news articles filled with fun facts, which might encourage ecotourism rather than highlighting the need for conservation. Ecotourism can have a negative impact on animals; for instance, beluga whales have suffered heavily due to increased boat traffic associated with ecotourism (3). To avoid these outcomes, narrative strategies must be researched in which the individuality of animals and the issues they face are highlighted, without resorting to stereotypes.

2.4 Animal-interest framing and multispecies justice cinema

To achieve this, I propose the term animal-interest framing, inspired by human-interest framing. A human-interest frame brings a human face to the way a news story is presented (19). With animal-interest framing, I suggest that stories about the development of the technology include narratives about individual animals impacted by anthropogenic threats. This form of framing seeks to address the "collapse of compassion" effect, which refers to the tendency of humans to care more about named individuals than about groups. According to Payne and Cameron (4), the more victims are presented in a story, the less humans care, and the less likely they are to donate money, time, or effort. Alongside narrative choices, animal-interest framing also includes the utilization of visual strategies for placing individual animals at the center of a story. For example, high-angle shots position viewers as if they are literally looking down on an animal, while eye-level shots show the animal's eyes. According to Whitley, Kalof, and Flach (22), visibility of an animal's face and eyes in a portrait-like shot is particularly important for creating human compassion towards animals. An important approach to audiovisual content in this context is multispecies justice cinema, developed by Carbonell (5). Multispecies justice theory critiques society for excluding non-human entities and for failing to acknowledge the interconnectedness of humans, animals, and nature. Multispecies justice theorists argue that knowledge and intelligence are not universal truths, but rather context-dependent, with each species possessing unique forms of intelligence shaped by its relationships and environment (2). In 2024, Carbonell applied multispecies justice theory to filmmaking practices, coining the term multispecies justice cinema. This approach explores new ways of seeing, listening, feeling, and relating to animals, ecosystems, and ecological crises. It seeks to decenter human exceptionalism by foregrounding alternative modes of life, perception, and intelligence through film (5).

3 Methodology

Rather than analyzing media representations after an event, as is often done in media studies, my research project will proactively investigate potential risks and opportunities of media representations of the technology and its outcomes. To mitigate risks of misrepresentation and unintended problematic framing, it is crucial to investigate representational strategies in the early stages of the development of the technology, so that future scientific breakthroughs are more likely to have a positive impact on animals and the natural world.

The methodology of the PhD research project is divided into five parts. The first paper, *A Multispecies Approach to Artificial Intelligence for Decoding Non-Human Animal Communication,* will establish the project's theoretical foundation and underlying conceptual framework. The second paper, *Multispecies Justice in Documentaries on Non-Human Animal Behavior Research: Examining My Octopus Teacher, Project Nim, Fathom, and A Life Among Elephants,* will analyze the representational strategies employed in the selected documentaries and reflect on how the strategies support or challenge principles of multispecies justice. The third paper examines the risks and opportunities associated with media representations of this technology and research on animal lives. The fourth paper, *A Phenomenological Approach to Representing Non-Human Umwelten in Audio-Visual Media about Interspecies Communication*, will involve the creation of video essays based on previously researched narrative and visual strategies. The impact of the video essays will be evaluated through audience research. In the final paper, a set of guidelines will be formulated for representing knowledge generated by AI for non-human animal communication based on the insights gathered during the research project.

4 Limitations

It is important to acknowledge several limitations of this research proposal. First, various aspects of the study depend on how future technologies and public discourses evolve. Although the study will employ in-depth methods to identify the risks associated with the media representations, the rapid and uncertain development of AI for non-human animal communication means that unexpected risks may emerge over time. Understanding these risks will therefore be an ongoing process, requiring continuous reassessment of the technology and its public discourse. Second, because the project involves the interpretative analysis of media artifacts and the development of normative guidelines, the researcher's positionality, grounded in multispecies justice theory, will shape the framework and recommendations. Third, the study focuses primarily on Anglo-European media contexts, as the research team is based in the Netherlands. This geographical and cultural focus may limit the generalizability of the findings and may overlook media practices from other cultures that frame non-human animals differently. These limitations highlight the importance of an iterative research approach and the need for continued dialogue across disciplines.

5 Acknowledgements

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