

## **EcoMind: Aspects of Ecology in New Media Art of the 21st Century**

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The interdisciplinary project EcoMind covers the fields of research into contemporary art, communication of ecosystemic knowledge in new media art, and a technological capacity building in A-Frame. The particular focus is on European new media artworks classified under the theoretical umbrella of social ecology, media ecology, and eco-aesthetics. Born from biology, referring to the interrelationship of organisms and their environments, the term has acquired a range of applied meanings in other contexts. In his work *The Three Ecologies* (1989), Félix Guattari expanded the concept of ecology, introducing the concepts of social, environmental, and mental ecology. It led to a new dimension of understanding the simultaneous crises confronting the environment, society, and the human psyche.

The VR environment EcoMind (2025-2028) is being designed as a contemporary art gallery cooperatively by three research institutions (RISEBA, Vidzeme University of Applied Sciences in Latvia, and École Supérieure d'Art et de Design d'Orléans in France). It aims to revise societal values regarding ecology, as well as demonstrate new media arts' reflections on our experience of beauty and the sublime.

The creators of EcoMind are a group of young creative engineers using the A-Frame technological approach. The environment is meant to be used internationally as an educational tool in colleges and universities related to creative industries in order to transfer knowledge embodied in today's art. The prototype is built on the basis of the ImGame project (Misjuns et al., 2025) made at the Vidzeme University of Applied Sciences (Latvia) in the A-Frame technological framework. It intends to communicate the concept of immersiveness, its cultural context and artworks of the 21<sup>st</sup> century focused on immersion.

The matrix of *ImGame* is further employed within *EcoMind* to support sustainability objectives, ensuring that the project's virtual environment remains adaptable for the integration of new content and the authors can continue to advance the mission of ImGame, i.e., to communicate artistic ideas to the wider public not just the connoisseurs of art. Through study examples, it has been acknowledged in the research discourse that virtual galleries can effectively act "as a means to reach a broader audience" in the teaching of humanities and "foster critical dialogue" (Parsons, 2023).

EcoMind is a capacity building project at the same time to enhance the STEAM learning for the young creative engineers. The project intends to embrace the education on environmental issues and new art, while developing the team's creativity and new programming skills in A-Frame. Methodologically, the authors of EcoMind refer to studies where VR has been shown to enhance learners' satisfaction with the educational experience. As noted by researchers, spatial ability in VR can boost cognitive development, reflective thinking, and thus elevate the learning experience (Serna-Mendiburu, Guerra-Tamez, 2024). The use of VR environments in education has improved audience's engagement and exploration, "effectively integrating art and environmental knowledge". The findings of Chin-Wen Liao have validated the effectiveness of VR technology "in enhancing students' artistic creativity and environmental literacy" (Liao et al., 2025).

Next to the educational and technological issues, the project encompasses research and development of new media art's theory. Through examples of recent media and installation artworks, it intends to explore particular contemporary aesthetic concepts such as dark ecology.

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## Keywords

ecology, new media art, dark ecology, sublime, a-frame