* Artwork captions: title, year, material (software, hardware or others), dimensions

“Untitled Interspecies Umwelten” 2021

Live video stream, *Euglena gracilis,* custom AI software

* Artwork description including a 50-word short abstract, and a 300-word long description.

50 word:

The project *untitled interspecies umwelten* is an artistic research project exploring expanded and computer-mediated experiences of conversation with another species. Through strategies in data viz, computer vision and AI-generated text, the project proposes the speculative intermingling of the natural and cultural worlds of bio-semiotics and extra-verbal language.

300 word:

The project *untitled interspecies umwelten* is an artistic research project exploring expanded and computer-mediated experiences of conversation with another species. Through strategies in data viz, computer vision and AI-generated text, the project proposes the speculative intermingling of the natural and cultural worlds of bio-semiotics and extra-verbal language. Its goal is to develop an interspecies futurity through which the collaborative practices with multiple species of plants, animals, fungi and microbes may inhabit the field, scientific/engineering laboratories and studios of computational practices (in silico).

In addition, the work is motivated to explore two emerging mythologies. The first is a familiar one – developed through prescient understanding of nonhuman systems (be it computer AI, or nonhumans) and the perspective of them as analogues for human minds. Kate Crawford speaks against this oversimplification of intelligence as an elision of the human as embodied, relational and set within wider ecologies. The second, is the myth of language as anthropocentric, verbal and utilitarian. Nature abounds with communicative structures beyond our comprehension and human-determined logic. By using simple computer systems with customizable parameters of ‘seeing’ and ‘listening’, could we formulate modes of communication that construct an interspecies *umwelten* - a multitude of semiotic traces that we may respond to?

*untitled interspecies umwelten* observes a *E.gracilis* community under the microscope. This freshwater alga has been well-documented for its unique morphological and behavoural qualities e.g. phototaxic (moving towards light) and metaboly (the ability to alter their shape in reaction to specific stressors). In a controlled experiment, these behaviours form a vocabulary of intent and are subsequently matched to words/emotions in a pre-selected database of text. *E.gracilis* thus steers a conversational AI system and its responses to a human conversant as a documentation of poetics between animal, machine and human communicative processes.

• Artist bio (150 words maximum per artist) with artist website URL

**Joel Ong** (PhD, MSc.Bioart) is a media artist whose works connect scientific and artistic approaches to the environment. His recent works explore the visibility and audibility of ambient phenomena with a particular focus on the wind and the atmospheric microbiome. His individual and collaborative works have been featured internationally at events such as Currents New Media Festival, Nuit Blanche Toronto, ISEA, Seattle Art Museum, Gregg Museum of Art and Design, Penny Stamps Gallery, and Ontario Science Centre. Joel is an alumni of SymbioticA, the Centre of Excellence in Biological Arts in Perth, Western Australia, and holds a PhD from DXARTS at the University of Washington. He was a recipient of the Petro-Canada Young Innovators Award in 2020 and is currently Artist in Residence with the UCLA SciArt Centre. Ong is Assistant Professor in Computational Arts and Director of Sensorium: The Centre for Digital Arts and Technology at York University.

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