

מכון סגול לתפקודי המוח תל-אביב
Sagol Brain Institute Tel-Aviv

December 2020

Collaboration proposal- EU Green Deal

Effects of Immersive VR on attitudes towards Climate Change

Dear colleagues,

We wish to offer a collaboration, by joining a research consortium within the EU Green deal call for proposals.

Background:

The Immersive Neuroscience Lab at the Sagol Brain Institute, Tel-Aviv Sourasky Medical Center, utilizes advanced virtual and augmented reality technologies for conducting naturalistic neurobehavioral studies. The lab employs an advanced motion tracking system (OptiTrack) and a full-body three dimensional scanning technology (Mantis Vision), which allow the immersion of the user in the virtual world in her own body. Mobile psychophysiological and electroencephalographic (EEG) systems facilitate real-time measurement of the user's responses to virtual cues. So far, two empirical papers from our new lab have been accepted for publication.

The [first paper](#) offered new electroencephalographic probes for virtual body ownership illusion. A [second paper](#) (accepted by the Journal of Computer Assisted Learning) demonstrates enhancement of second language vocabulary learning following naturalistic bodily interactions with the learned items.

Proposed research collaboration:

In our current research we will address perceived psychological distance, which is one of the barriers preventing us from effectively and timely dealing with climate change.

We believe that our research can contribute to working groups seeking to conduct research under the topic of LC-GD-10-3-2020- In particular sub topic 2- Enabling citizens to act on climate change and for sustainable development through better monitoring and observing of the environment and their environmental impacts.

Potential collaborations can also be made under - LC-GD-10-2-2020: Behavioral, social and cultural change for the Green Deal.

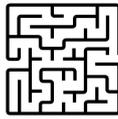
And LC-GD-10-1-2020 Capacities for citizen deliberation and participation for the Green Deal.



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In our current research we will investigate whether a reduction of the perceived psychological distance between the individual and the adverse consequences of climate change via virtual reality (VR) increases: 1. Concern about climate change 2. Willingness to act upon climate change 3. Behavioral change.

We wish to expand the current understanding in regard to the potential of VR to become an effective vehicle for changing attitudes concerning issues that are vital for promising a sustainable future.

The research is conducted by leading researchers in their fields.

[Dr. Gal Raz](#), Founder and Director of the Immersive Neuroscience Lab at the Sagol Brain Institute, Tel-Aviv Sourasky Medical Center.

Dr. Raz is a senior lecturer at the Steve Tisch School of Film and Television and the Sagol School of Neuroscience at the Tel Aviv University, and a researcher at the Sagol Brain Institute. His fields of research include brain network dynamics, neuroscience of empathy, cinematic empathy, the neuroaesthetics of motion pictures, audiovisual brain computer interfaces, and virtual and augmented reality.

[Prof. Nurit Carmi](#) - Head of the Society and Environment Program in Tel-Hai College, Israel. Her main research interests are the interface between environmental literacy, psychology, sociology and evolution, within this scope, she is interested in investigating environmental threat perception as a factor that influences behavioral decision making.

We will be happy to be in contact regarding such a joint endeavor.

Contact information: galraz@post.tau.ac.il

Thank you!



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