

RCGI-USP Digital lab: a sci-art platform for advocacy on climate emergence

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Climate emergence processes and phenomena involve scales ranging from atoms to planetary. This challenged the diffusion of knowledge for stakeholders and the lay public on issues regarding the developed technologies towards a low-carbon society. The RCGI-USP Digital lab of the Research Centre for Greenhouse Gas Innovation at the University of Sao Paulo has been created to map the social perception, reduce the education gap, and engage the general public on greenhouse gas mitigation technologies. It explores the intersection and fusion between Sciences & Arts through digital transformation processes, immersive technologies, research-driven arts, and innovation on CO₂ abatement, decarbonization processes, greenhouse gas technologies, nature-based solutions, and bioenergy with carbon capture and storage. This work will present the sci-art exhibitions' curatorial strategies for education and knowledge diffusion from a geochemistry perspective over scales as a platform for advocacy on climate emergence. In particular, the experiences in mapping public perception through Social Physics methods and engaging the public with the exhibitions in the Molecularium, an interactive and immersive sci-art exhibition gallery on processes at a molecular scale and their implication of macro ones. It also involves future literacy through the theatre games based on Augusto Boal's Theatre of the Oppressed to engage and awaken the young generation, the general public, digital influencers, and policymakers on energy transition and mitigating climate change in Brazil and worldwide. This work was carried out with support from FAPESP (grants 2022/07560-0 and 2020/15230-5).

