



Climate change games literature review: Report on work in progress

David Crookall^{1,2}, Berill Blair³, Pimnutch Promduangsri^{2,4}, Rachel Wellman⁵, Svitlana Krakovska⁶, and Uyen-Phuong (Rachel) Nguyen

¹Université Internationale de la Mer, France (crookall.consulting at gmail)

²Université Côte d'Azur, France

³SKEMA Business School - Université Côte d'Azur, Suresnes

⁴Inter- Ocean-Climate School (IOCS), France

⁵FAU Pine Jog Environmental Education Center, USA

⁶Ukrainian Hydrometeorological Institute, Ukraine

Claims about the 'power' of games and simulations to slow the speed of climate change are sometimes exaggerated. We have therefore embarked on a literature review of academic publications on the topic of simulation/gaming and climate change. In our presentation, we will summarize the work so far.

As we write this abstract, we have identified over 400 items, some published in peer-reviewed journals, some in games conference proceedings, some in magazines or blogs. We will therefore need to design careful inclusion/exclusion criteria, to have a pool of from 20 to 40 publications.

The types of publications vary widely: research on a particular game, tips on facilitating, overview of the role of games in climate education, use of simulation as a climate research tool, role-play of climate negotiations, necessity of debriefing, evaluation of climate games. Types of games mentioned or examined also vary: board, online, computerized, single player, interactive, video, escape rooms and even gamification.

We hope that our review will be able to reveal a variety of elements, such as:

- the real potential and limits of games to influence climate education;
- how exaggerated the claims are about the power of climate games;
- what aspects of global warming are present in game publications and in games, e.g., carbon cycle, how GHGs actually 'heat' the planet, floods, hurricanes (and why), slowing of AMOC, role and acidification of the ocean;
- the use of debriefing in climate games.

Our aim is not to propose a taxonomy of climate, although categories of climate game types may emerge in the literature.

[Please note that most 'games' related to climate change education are in fact simulations, often with game elements. In keeping with the long tradition of simulation/gaming (dating back to the

early pioneers, such as Duke, Greenblat, Guetzkow), we use the term game to refer to the whole spectrum of interactive events (Ken Jones' term), from 100% simulation to hybrid simulation/games.]

If you are interested in contributing to this work, please come to see us at our poster, or contact us here [oceans dot climate at gmail](mailto:oceans.dot.climate@gmail.com).