

Climate Survivors: A Bullet Heaven for Enhanced Climate Engagement

Jan Steinhauser^{1,2}, Doris Vollgruber²

¹ International Institute for Applied Systems Analysis

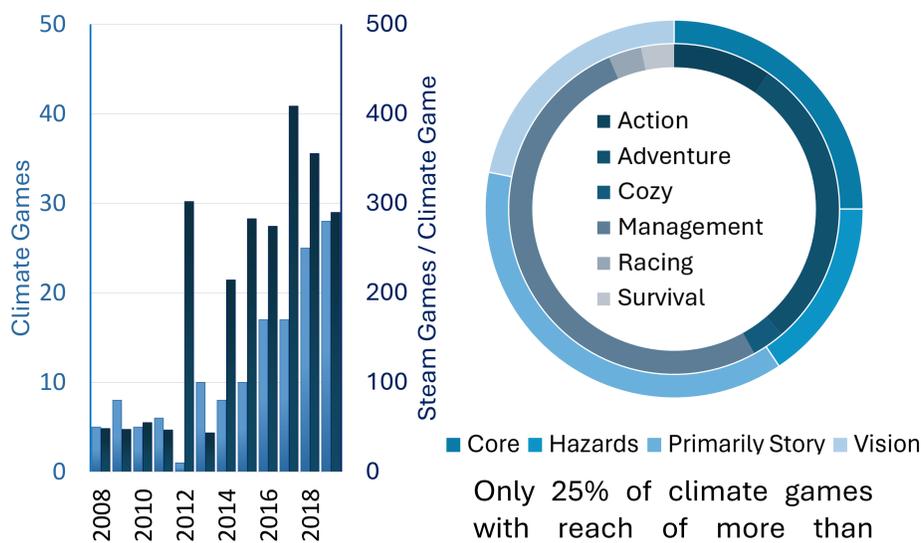
² Terragami

Motivation

The climate and biodiversity crisis is a wicked challenge that requires an informed, engaged, and active population. Video games are a possible tool to support this. But only few try to tackle sustainability issues, and even fewer reach significant player numbers while doing so. Those that do rarely try to maximize their impact.

Methods

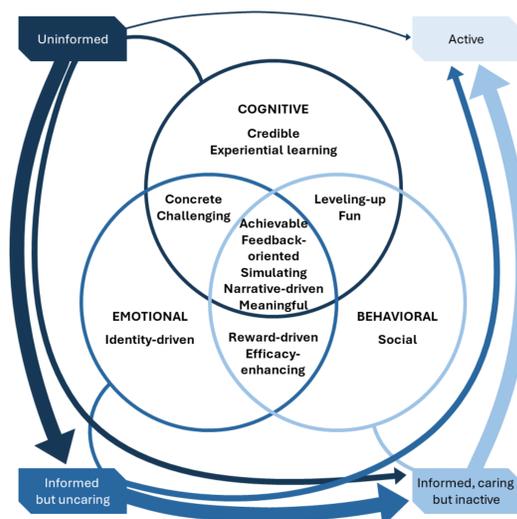
Market analysis using a pre-existing database on climate games [1] and SteamDB as trend indicator for the overall games industry. Genre and content categorization of games in the climate game database. Best and worst practice analysis of climate games. Application of an existing framework for effective climate engagement through games [2] in a consistent game concept.



The number of annual climate game releases and their ratio to Steam game releases. Climate games growth has not kept up with Steam releases.

Only 25% of climate games with reach of more than 10,000 people (31 total) feature climate as a core element. Over 50% are strategy or management games, nearly 30% are adventures. For 'core' games, the share of strategy and management is even higher.

1. D. Fernández Galeote and J. Hamari, "Game-based Climate Change Engagement: Analyzing the Potential of Entertainment and Serious Games," doi: 10.1145/3474653.
2. T. Ouariachi, M. D. Olvera-Lobo, J. Gutiérrez-Pérez, and E. Maibach, "A framework for climate change engagement through video games," doi: 10.1080/13504622.2018.1545156.



The 15 attributes that can help maximize the impact of a climate game, as collected and grouped by [2]. The three engagement groups – cognitive, emotional, behavioral – are put into context of the journey from an uninformed and thus inactive person to informed, caring, and finally active.

Results

The few successful games with climate at their core rarely use their platform to communicate actionable messages and often stick to the strategy/management genre. To fill this gap and reach a wider audience with actionable messages, *Climate Survivors* applies the presented framework to an action game concept.

The screenshots illustrate the following engagement attributes:

- Identity-driven, Narrative-driven:** Shown in the introductory text screen.
- Credibility, Efficacy-enhancing, Simulating:** Shown in the simulation screen where players choose a weapon (Nuclear, Solar, Wind) to combat climate change.
- Fun, Meaningful, Achievable, Feedback-oriented:** Shown in the game play screen where players level up and receive feedback.
- Concrete, Experiential learning, Reward-driven, Leveling-up, Challenging:** Shown in the simulation screen where players see the impact of their choices.
- Social:** Shown in the leaderboard screen where players can compare their scores.

