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**Why role-playing games can combat the climate crisis**

**Solving problems in a safe, collaborative environment can help us think out of the box and build empathy – crucial skills in a warming world**

**By Sam Illingworth**

The urgency of the climate crisis is [beyond debate](https://www.nature.com/articles/550S62a). Action is imperative. But how should we act, when the long-term impacts of our actions are so difficult to grasp and predictions of the future highly uncertain?

Imagine you were a mayor in charge of a coastal city. How high would you build a seawall, for example, to offer protection from future flooding? Taking that decision would involve balancing the risks of breaches against the costs of construction, without knowing how fast the seas might rise or what the consequences might be for marine life or local communities.

The complexity of decisions that we will all face as the world warms are hard to anticipate. But I think that games --- and in particular role-playing games --- can be an invaluable tool. By enabling players to face and deal with situations in a simulated environment, board games can educate us as well as help us to explore options and witness the consequences of our actions.

As a [game designer and education](https://doi.org/10.1371/journal.pcbi.1009009) researcher I have seen the transformative power of games firsthand. For example, I have used the board game [*Terraforming Mars*](https://boardgamegeek.com/boardgame/167791/terraforming-mars) to introduce young adults to the concept of space colonisation and explore the ethics in a collaborative learning environment. In this game, players control corporations competing to transform Mars into a habitable planet by extracting resources, building cities and green spaces. Nearly every session evolves into a heated debate about the choice to divert resources to make a new Earth instead of fixing the one we have.

I’ve also seen how game mechanics can influence player interactions and promote teamwork towards common environmental goals. For example, when co-designing the deck-building card game [*Carbon City Zero*](https://boardgamegeek.com/boardgame/288179/carbon-city-zero) with [Paul Wake](https://www.mmu.ac.uk/staff/profile/dr-paul-wake) and the climate charity [Possible](https://www.wearepossible.org/carbon-city-zero), we initially had players compete individually to build the first zero-carbon city. Feedback suggested that the competitive aspect sent the wrong message**.** In response, we made [*Carbon City Zero: World Edition*](https://boardgamegeek.com/boardgame/318661/carbon-city-zero-world-edition), where players acting as city mayors must co-operate to fight the climate crisis.

The concept of the ‘magic circle’ in game design is key to their power. It refers to the space where players enter a world with its own rules – in this case the rules of the game itself. In [*CO₂: Second Chance*](https://boardgamegeek.com/boardgame/214887/co2-second-chance), for instance, players act as energy company CEOs who must respond to global warming by transitioning from fossil fuels to renewable energy, balancing economic growth with environmental sustainability. Game rules enforce targets and penalties like financial losses for high emissions, mirroring real-world challenges.

Such games provide strategic insights for climate action but are often limited by their rigid mechanics. Presenting a limited number of scenarios can restrict creative problem-solving. Tabletop role-playing games offer a more personalised and narrative-driven experience. In these games, players themselves often craft the storylines, guided by broad frameworks set up by game designers. For example, in a game like *Dungeons & Dragons*, players create their characters' backstories and decisions, which evolve through scenarios set up by a ‘game master’, leading to a unique, collaborative narrative.

[Studies highlight](https://doi.org/10.1080/00029157.2015.1103696) the benefits of participating in role playing games. Regular players exhibit higher levels of empathy than non-players. And individuals who are transported into stories tend to [engage more frequently in pro-social behaviours](https://link.springer.com/article/10.1007/s10584-019-02425-6). This increase in empathy also correlates with greater [attention to pro-environmental decisions](https://doi.org/10.1108/MRR-12-2017-0408). Conversely, a [deficit in empathy is often found among climate change deniers](https://doi.org/10.1016/j.paid.2015.05.041). While no direct evidence yet links playing role playing games to specific environmental actions, the potential of these games to enhance empathy indicates they could effectively promote significant climate action among players.

It was this potential that led me to co-create [*Rooted in Crisis*](https://rootedincrisis.com/) alongside a global team of researchers, educators and game designers over the past three years. This collaborative tabletop role playing game, which is set to launch this week on [Kickstarter](https://www.kickstarter.com/projects/jesseross/rooted-in-crisis), blends factual climate knowledge (developed and fact-checked by the researchers) with narrative-driven gameplay. For instance, players might find themselves negotiating disaster relief in a magical city facing a catastrophic flood, or exploring outer space in a darkly comedic scenario that highlights recklessness amid an impending catastrophe.

Despite the potential benefits for climate action, several barriers hinder the widespread adoption of such games, however. They are often perceived as frivolous or juvenile, which underestimates the complexity achieved through collaboration with scientific experts. Additionally, there is scepticism about translating complex scientific data and policy discussions into engaging gameplay without oversimplification. To counter this, we've included scenarios that mirror real-world climate challenges, such as managing a city’s response to rising sea levels or countering the influence of lobbyists.

My belief in the power of games like these to address complex societal issues like climate change is deeply rooted in my own experiences as a player. Through these games, I have had the opportunity to inhabit vastly different personas, from a barbarian orc in a fantasy land to a future citizen of a flooded continent. Each session is an escape into another world, and with it an exercise in empathy and problem-solving.

*Dungeons & Dragons* this is not, but the horrors we are facing due to the climate crisis are far more frightening than any imaginary monster. In *Rooted in Crisis*, we harness this sense of urgency and dread through immersive scenarios such as negotiating with rival factions to secure water in a drought-stricken world or deciding whether to save a flood-threatened town or its historical artifacts. These vivid, challenging situations are designed to place players directly in the shoes of decision-makers dealing with difficult climate issues. This is not just a game; it is an invitation to step up and become the protagonists in the most crucial story of our time – our own.