

#MiamiHacksClimateChange

With

ClimateChampions Games (C2)

An Epic Game to Save the World

According to a Pew Research Center report in 2015 more than 49% of U.S. adults and 80% of young Americans play video games. Although most games are played for entertainment, some educational benefits can be derived from almost any game and educationally oriented games are growing rapidly.

A few games aim to broaden the public's understanding of climate change and its impacts on the environment. These games range from role playing for the design of future cities to mission-oriented activities that deliver help to disaster-stricken communities. However, the educational impacts of these games are limited because they engage climate change challenges at a superficial level, or they fail to captivate sustained level of interest from gamers. The problem is that these games are either produced by game developers with limited access to expert climate science knowledge or by academics who are novices in art of entertaining game design that can be marketed to a large and pre-motivated customer base.

At the April 5-7, 2019 *Miami Hacks Climate Change* event, EcoTech Visions and Florida International University's College of Communication, Architecture + The Arts (CARTA) [with the Sea Level Solution Center (SLSC) which resides within the Institute of Water and Environment], plan to assemble South Florida game players and coders, the professional game development community, and teams of scientists, engineers, architects, and economists whose research and scholarship are focused on climate change issues and strategies to achieve goals as expressed in the Paris Agreement, specifically changing societal behavior and using advanced technology to limit global warming to 1.5 degrees Celsius or substantially below 2 degrees Celsius before global temperatures cool to those as experienced over the last 10,000 years. In this collaboration, which will be professionally recorded and broadcasted for concurrent participation by a world-wide Facebook Live audience, we hope to begin a global movement to support efforts to develop a unique genre of **ClimateChampions (C2)** games that provide:

- High quality climate science education,
- Realistic demonstrations of long-term, scientifically established, and likely outcomes of collective human behaviors,
- Practical tools that can impact real world outcomes and promote public policies which accelerate beneficial behavioral changes, and
- Satisfy game-play experiences.

The ClimateChampions (C2) genre of games will be built on a collaborative approach that include: interdisciplinary groups of faculty and students at Florida International University (FIU), Miami Dade College, and other institutions of higher education; well-established South Florida game developers; younger generation of professionals concerned with the impacts of climate change; and other stakeholders who identify as environmentalists, social idealists, and long-term thinkers.

For the next few years, several teams will seek to work collaboratively to bring advanced knowledge to the creation of a truly entertaining and epic game. They will seek to provoke change in human activities and behavior through access to advanced knowledge and technology, and to help game-playing humanity develop an understanding of long-term existential risks and global consequences of sub-optimized behaviors that exacerbate global warming. It is hoped that these efforts will enable appropriate responses to climate change challenges which we now face.

C2 games will educate and encourage players to become productive leaders and agents of change in the real world. It is expected that some C2 games will provide tools to optimize the exercise of well-recognized fundamental rights through advanced messaging capabilities and travel guidance to that allow expert C2 players to collectively speak, assemble, and petition government for the redress of grievances.

A Climate Change Backgrounder

The Paris Agreement (<https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>) arises from the United Nations Framework Convention on Climate Change (UNFCCC) process (see <https://unfccc.int/process> and more generally <https://unfccc.int/>). Also see the NASA Global Climate Change website at <https://climate.nasa.gov/> and the NOAA Climate Change websites at <https://www.noaa.gov/climate> and <https://www.noaa.gov/categories/climate-change>. In addition, please consider reading:

- The Fourth National Climate Assessment (NCS4) Volume II at <https://www.noaa.gov/news/new-federal-climate-assessment-for-us-released> and <https://nca2018.globalchange.gov/>
- The IPCC Special Report “Global Warming of 1.5°C at <https://www.ipcc.ch/sr15/>
- The NASA article entitled: “Graphic: The relentless rise of carbon dioxide” at https://climate.nasa.gov/climate_resources/24/graphic-the-relentless-rise-of-carbon-dioxide/
- NASA’s Earth Observatory at [https://earthobservatory.nasa.gov/world-of-change/DecadalTemp](https://earthobservatory.nasa.gov/world-of-change/DecadalTemp;);
- “Climate Change: Ocean Heat Content” at <https://www.climate.gov/news-features/understanding-climate/climate-change-ocean-heat-content>
- “Discovery of Global Warming” at <https://history.aip.org/climate/index.htm>
- Sustainable Development Goals at <https://sustainabledevelopment.un.org/?menu=1300>
- FIU Sea Level Solution Center website at <https://slsc.fiu.edu/>
- FIU Institute of Water and Environment website at <https://inwe.fiu.edu/index.html>
- FIU CARTA Climate Studio website at <http://carta.fiu.edu/climatechangestudio/>

TAKE AWAY

Climate Change is a right now problem and the expected very serious adverse impacts need to be avoided through mitigation and adaptation.

If we are to prosper and reduce this existential risk, we will need to make substantial changes in our behavior immediately as well as begin to use of new technology and strategies to become more sustainable and resilient.

Creating and using a genre of ClimateChampions (C2) games would be a means to encourage rapid changes in behavior and use of advanced technology to reduce what otherwise will soon become an unavoidable existential risk.

With the availability of C2 games, the next time Climate Change become the subject of a serious conversation and the discussion closes with: “*But this problem is so big a problem! What can I do that would make a difference?*”, you will have a ready and easy answer –

“Just play the game!”

