GREEN GAME STUDIES
COURSE PACKAGE 1

CGL
Cologne Game Lab

Technology
Arts Sciences
TH Köln

Breda University
OF APPLIED SCIENCES

CHARLES
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Course: "Eco-Critical Game Studies. Video Games as Objects of Culture & Nature"

Module: Basic Media and Game Studies (B.A. Digital Games Program, Semester 3)
Institution: TH Köln, Cologne Game Lab, Germany
Timeframe: Winter Term 2023 (September 2023-February 2024)

This course package is based on a syllabus of a course delivered in the B.A. Digital Games program within the Media & Game Studies module taught at Cologne Game Lab, TH Köln in winter term 2023/2024. The package includes the following:

- Course description
- Learning outcomes
- Mandatory sources
- Additional sources
- Assessment & grading criteria
- Course structure

This educational material has been created within the framework of the project "Greening Games. Building Higher Education Resources for Sustainable Video Game Production, Design & Critical Game Studies" (2021-2024) funded by the Federal Ministry of Education and Research in Germany within the framework of the Erasmus+ Programme of the European Union (KA220-HED – Cooperation Partnerships in Higher Education).

More information may be found at: *https://greeningames.eu*.

Course description

It was high summer 2022. In many regions of Europe and worldwide, temperatures reached record heights. France suffered under unprecedented wildfires, with over 62,000 hectares of flora burned by the end of August 2022. Meanwhile, players of the Riders Republic, a major multiplayer sports video game developed and published by Ubisoft Annecy, engaged in digital reforestation. They planted virtual trees in dedicated locations of the game's map, bringing to life an entirely new forested area that stayed in the game for others to experience long after the event had come to an end. The Riders Republic Rebirth event culminated in the first ever in-game climate march, for which players were equipped with virtual green t-shirts, banners, megaphones and drums, so that they could creatively express their support for the climate cause. The project was conceptualized in 2021 during a Green Game Jam, organized by the Playing for the Planet Alliance, the Environmental Program of the United Nations. Boris Maniora, Riders Republic gameplay director, believes that green activations such as Rebirth show the empowering impact games can have on their players, instigating hope and potentially providing them with skills they could transfer to their off-line realities.

However, video games are not only drivers of ecological messages and climate positivity. They are as much objects of culture as they are of nature. As virtual, immaterial and clean as they are portrayed within the framework of postindustrial capitalism (Maxwell and Miller 2012, 5), they are literally made out of natural resources and material labour. Video games rely on technologies and production dynamics that make those media possible in the first place. Amongst many other media scholars, Sean Cubitt in Finite Media. Environmental Implications of Digital Technologies (2017) talks about media as "finite resources in the closed system of planet Earth" (2017, 7), time-bound and tied to their physical dimensions.

This course is an invitation to rethink video games and gaming within the context of climate crisis and environmental sustainability. In the two three-hour sessions (amounting to four 90-minute-long seminars), we will look at the two contrasting facets of video games: on the one hand, their capacity to empower communities and represent ecological issues, and on the other their reliance on earthly matter – e.g., minerals that build up electronic technology, indispensable for their production, consumption and distribution.

[1] https://playing4theplanet.org/green-game-jam

Maxwell, R., and T. Miller. 2012. *Greening the Media*. Oxford: Oxford University Press.
Cubitt, S. 2016. Finite Media. *Environmental Implications of Digital Technologies.* Durham, NC: Duke University Press.

Learning outcomes

The participants of this course will:

- reflect the question of climate crisis within the context of video games,
- learn what green / ecological / environmental games are,
- rethink game design and gaming practice from the perspective of sustainability,
- familiarize themselves with one of the most recent strands of eco-critical research in game studies,
- explore the most recent initiatives launched by the games industry and the critique thereof,
- submit academic podcasts, choosing a specific aspect of gaming to analyze within the context of sustainability.

Grading

Research project (100%)

An academic podcast (5 minutes long), in which you will explore the question of environmental sustainability of / in video games, reaching out to **3 reliable and in-depth academic or journalistic sources** (other than the main readings in this seminar).

Pay attention not only to the content but also to the form. A podcast is quite a direct and experimental form, so feel free to use "jingles", address your listeners, discuss the topic in a dialogue with a made-up persona or just sound like you care for your topic. Try not to just read out a pre-written script. Make it lively, but keep the academic rigor.

Grading criteria

- **Argument** – how well you develop your argument
- **References** – how well you embed your argument in literature
- **Structure** – does your podcast have a clear research question / statement; does it have introduction and conclusion?
- **Style and form** – how well you present (voice modulation, clarity of speech, language); how well you adapt the podcast / radio feature form
- **Time** – try to make it on time (circa one minute difference is allowed)

Additional sources (reading, videos, games)

Written sources

Abraham, B. J. 2022. *Video Games after Climate Crisis*. Palgrave McMillan.

Abraham, B. J. 2020. Making Room for Climate Justice. *Game Developers Conference* 2022. Independent Games Summit. https://www.gdcvault.com/play/1027763/Independent-Games-Summit-Making-Room.

Chang, A., Parham, J. Green Computer and Video Games. An Introduction. *Ecozona*, vol. 8, no. 2: http://ecozona.eu/article/view/1829/2095

Fizek, S. et al. 2023. *Greening Games Education Report.* Available online at: http://greeningames.eu/greening-games-education-report

Game Environmental Guide by game Verband: https://www.game.de/en/guides/game-environmental-guide

Maher, C. 2020. A new wave of indies are using games to explore climate change. *The Verge*. https://www.theverge.com/2020/2/13/21135321/video-games-climate-change-beyond-blue-bee-simulator-temtem-endling

Videos and recorded lectures

Alfred, S. GDC 2022. Developing 'Terra Nil': A Strategy Game About Nature, Not Expansion: https://www.gdcvault.com/play/1029027/Developing-Terra-Nil-A-Strategy

Riders Republic: *Inspired By Nature* (a Ubisoft-made short film introducing Riders Republic and its ecological design philosophy): https://www.youtube.com/watch?v=1gtHZ2-NpD8

Environmental video games

La Molleindustria. 2023. *Half Earth Socialism*: https://play.half.earth

La Molleindustria. 2023. *The Green New Deal Simulator*: https://molleindustria.itch.io/green-new-deal-simulator

Free Lives. 2023. *Terra Nil*: https://store.steampowered.com/app/1593030/Terra_Nil

Course structure

This course has a time format attuned to the specific needs of the B.A. Digital Games Program at Cologne Game Lab, TH Köln. Each seminar session comprises two 90-minute-long blocks (altogether, eight 45-minute-long sessions). Usually, the course is attended by up to 40 students.

Contents

Seminar session 1: Games as Objects of Culture
(didactic material planned for four 45-minute-long sessions)

Seminar session 2: Games as Objects of Nature
(didactic material planned for four 45-minute-long sessions)

Seminar Session 1: Games as Objects of Culture

Leading questions for the session

- What are green or eco-critical game studies?
- What are green / environmental /ecological games?
- Can such games educate about climate change and empower their players to act more ecologically?

Preparation

For this session, students are expected to read / watch / play the following sources:

- Abraham, B. J., and D. Jayemanne. 2017. Where are all the climate change games? Locating digital games' response to climate change. *Transformations Journal*, issue 30: http://www.transformationsjournal.org/wp-content/uploads/2017/11/Trans30_05_abraham_jayemanne.pdf.
- Chang, A. 2022. *The Ecology of Games.* https://www.youtube.com/watch?v=9YJ_36AfR9s
- Charles Games. 2023. *Beecarbonize*. Windows, iOS: https://store.steampowered.com/app/2486750/Beecarbonize.

Lecture

Topic: Introduction to Eco-Critical Game Studies I *(45 minutes)*

Note: *see Introductory Lecture Deck 1 "Video Games and Nature. Introduction to Eco-critical Study of Games & Game Making" available in the repository of the "Greening Games" project.*

Seminar

Activity 1: Discussion based on two first sources from the list (45 minutes)

Exemplary questions helpful in moderating the discussion:

- What is climate fiction (cli-fi)?
- What do video games have to do with cli-fi?
- How can video games help envision utopias?
- What ecological dimensions of video games can you think of?

Activity 2: Talk & Play session based on playing the game from the sources list (60 minutes)

Task 1: Divide students into groups of 3-5 and ask each of the groups to play through the assigned ecological game, e.g., *Beecarbonize* (2023). During the playthrough session, students should take notes, paying attention to how the ecological message is communicated through the game via e.g., game rules (game loop), visual aesthetics, narrative elements (if present), and meta-gaming elements. Discuss the usefulness of "procedural rhetoric", a term coined by Ian Bogost to describe the way video games persuade via algorithmic procedures. *(30 minutes)*

Task 2: Ask each of the groups to share their impressions and findings. *(5-10 minutes per group; 30 minutes)*

Summary

Moderate the discussion based on points shared by student groups. Collect all the points and make them available after the session over a collaborative work software, e.g., Sciebo or Miro. *(30 minutes)*

Seminar Session 2: Games as Objects of Nature

Leading questions for the session

- What are green / environmental /ecological games?
- Has anything changed from session one?
- How are games and gaming engraved within earthly matter?
- How to wrap our heads around carbon emissions and questions of labour and natural resource extraction?

Preparation

For this session, students are expected to read / watch the following sources:

- Abraham, B. J. 2020. Making Room for Climate Justice. *Game Developers Conference* 2022. Independent Games Summit: https://www.gdcvault.com/play/1027763/Independent-Games-Summit-Making-Room.
- Gordon, L. 2020. The many ways video game development impacts the climate crisis. *The Verge*: https://www.theverge.com/2020/5/5/21243285/video-games-climate-crisis-impact-xbox-playstation-developers.
- Gordon, L. 2019. The environmental impact of a Play Station4. *The Verge*: https://www.theverge.com/2019/12/5/20985330/ps4-sony-playstation-environmental-impact-carbon-footprint-manufacturing-25-anniversary.

Lecture

Topic: Introduction to Eco-Critical Game Studies II *(45 minutes)*

Seminar

***Activity 1**: Warm-up discussion based on the first source from the list (30 minutes)*

***Activity 2**: Group work and discussion based on the second source from the list (30 minutes)*

Divide the students into groups of 3-6 persons (depending on the size of the entire cohort) and ask each of the groups to explore one aspect connected to ecological video game development or one critical question from the text e.g., the (im)possibility of carbon neutral game development, how to change game development practices and production pipelines, how to quantify carbon emissions, what is the main point of critique of the Greenpeace Guide to Greener Electronics, how to approach the energy use of consoles.

***Tip**: To make the task a bit more playful, you can use cards with specified tasks. See: Greening Games: Activities Card Deck available for download in the repository of the "Greening Games" project. Get inspired and make your own card decks or expand our card deck with your own tasks.*

***Activity 3**: Discussion based on the third source from the list (30 minutes)*

Summary

Moderate the discussion based on points shared by student groups. Collect all the points and make them available after the session over a collaborative work software, e.g., Sciebo or Miro. *(30 minutes)*

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The project "Greening Games. Building Higher Education Resources for Sustainable Video Game Production, Design & Critical Game Studies" (2021-2024) supports educators in addressing the interdisciplinary nature of green digital gaming.

More information may be found at: https://greeningames.eu.

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