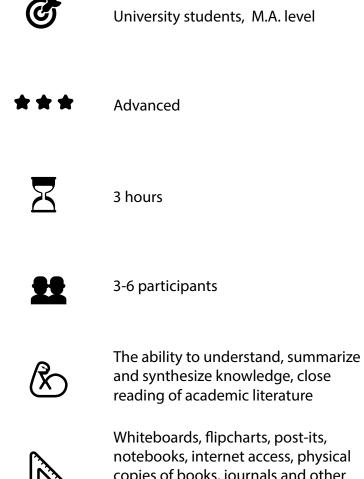
GAMES INFRASTRUCTURES

Activity 1: Mapping out the field







copies of books, journals and other relevant literature sources

CGL Cologne Game Lab

Technology **Arts Sciences** TH Köln









European Union

CONTEXT

The influence of video games and digital media on the environment is unquestionable. However, it is usually the "old" media such as print, television and film that are associated with a negative climate impact caused by material production and consumption practices. As we will find out in this workshop, digital media and video games are as much anchored in the material world as their non-digital predecessors. The ubiquitous cloud computing is one the most illustrative examples of the problem. The majority of existing data centers are powered by non-green energy sources. Also, the amount of data humanity currently produces and consumes requires vast infrastructure that would be able to process and store it. Digitality then carries with it a certain paradox – the more virtualized our culture becomes, the more material resources it needs to sustain itself and the bigger its impact on the natural world.

TASK

This activity will give you the opportunity to explore the following research question: **How is digital gaming** grounded in earthly matter?

As a research team, you will map out the **materiality of video games** by drawing a web of relations (imagine a hypertext map with topics related to one another). In order to do that, you will look into diverse sources on: gaming hardware (its production and reliance on resources, carbon footprint of making and using electronic devices), digital waste, and cloud computing.

SUMMARY

The aim of this activity is to simulate team research at an early stage of development. The students are given a task to explore a concrete research question by mapping out the existing thematic fields related to it. This activity is part of a larger workshop designed for M.A. students. It may be offered as a stand-alone session or it may be expanded with two more activities that prepare the students for their final task of formulating their own research questions.

PREPARATION

Whiteboards, flipcharts, post-its, digital collaborative spaces (such as Miro), necessary academic sources (a digital list – see Greening Games Zotero Library, physical copies in the room, alternatively The Greening Games Deck).

Instructors are encouraged to use the Greening Games Zotero Library or/and The Greening Games Deck.

Expansion packs:

- Activity 2: Zooming in
- Activity 3: Finding your own path

LEARNING OUTCOMES

The aim of this activity is to set up a framework for the discussion on how video games as digital media influence and rely on the natural environment. By the end of this activity, the participants will have gained an overview of selected aspects of the materiality of video gaming. They will also have been confronted with eco-critical questions related to the making and playing of video games.



Ready, steady, go!

In this activity, you are embodying a young Greening Games research team. Your task is to explore the relationships between video games and the natural environment by looking at the materiality of the medium. To make this task a bit more feasible within the timeframe that you are given, you already have access to selected trustworthy academic and journalistic sources.

If you want to make this task a bit more fun, feel free to use **The Greening Games Deck** and assign Games Infrastructures cards randomly to your team members. You can also use the cards by browsing through the leading research questions that correspond the most with your research interests. Most importantly, be a good team player and have fun.

Step 1 Warm-up (30 minutes)

Form a research team of 3-6 participants. Select one team member to document your research in a format that suits the entire group (whiteboard, notes, flipchart, online Miro board).

Discuss what games infrastructures mean to you.

Help questions:

How do you imagine the materiality of video games? What does it mean to see video games as material objects? How are video games entangled in the natural environment?

Take notes of your initial thoughts and exchanges.

Take a quick look at the literature sources that have been prepared for you: **Greening Games Zotero Library**, physical copies of books and journals in the room, alternatively **The Green***ing Games Deck*.

Select two to three sources that you want to explore in more detail. Assign each source to one team member. Alternatively, if the group is larger, two persons may read the same source and consult each other.

Move on to step 2.



Step 2 *Sieving through sources (60 minutes)*

Read your literature source of choice. Take notes – write down questions, terms, concepts that may be useful in the group discussion. If the source is lengthy, at this stage of research, feel free to scan through it in order to gain a general overview of the topic.

Break Drink, exercise, snack (15 minutes)

Step 3 Team exchange (45 minutes)

Exchange knowledge you gathered based on the readings.

Think visually - start mapping out all the aspects of materiality of gaming that you learned about in the reading sessions. Discuss your findings, opinions, ideas. Try to look for relationships, patterns, differences and commonalities. Which aspects seem the most interesting to your research team and worth exploring further?

Step 4 *Presenting maps of relations (30 minutes)*

Present your map of relations to other teams. Take 5-10 minutes (depending on the size of the entire group participating in the activity). After each presentation, leave at least 5 minutes to a Q&A session. Take notes of the comments coming from your peers and instructor.

Finally, document your maps (take photos, screenshots or find a way to share all the results in a collaborative online space of your choice).



Credits & Acknowledgements

Author Prof. Dr. Sonia Fizek, TH Köln (Cologne Game Lab)

All Team Members Prof. Dr. Mata Haggis-Burridge, Breda University of Applied Sciences Tuki Clavero, Breda University of Applied Sciences Dr. Laura Frings, TH Köln Dr. Lukáš Kolek, Charles University Andrea Hubert, Charles University Dr. Maria B. Garda, University of Turku Karoliina Koskinen, University of Turku

Layout design: Noa Marcon (BA student at CGL, TH Koeln) **Logotype design**: Sara Mohamed Badawy Omar Alkotkat (BA student at CGL, TH Koeln)

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) that supports educators in addressing the interdisciplinary nature of green digital gaming. The project has been 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).

Project reference: 2021-1-DE01-KA220-HED-000029501

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

This publication is distributed free of charge and is funded with the support from the European Commission. The sole responsibility of this publication lies with the author(s). The European Commission or the National Agency (FRSE) are not responsible for any use that may be made of the information contained therein.

This work is subject to a Creative Commons CC BY-SA license.



30.06.2024 Köln – Breda – Praha – Turku



With the support of the Erasmus+ Programme of the European Union

