Project on „Promoting Climate Literacy among University students"
International Health Sciences, Module 14 (Teacher: Hendrik Siebert)

## *What is the project about?*

Climate change and its consequences are considered to be one of the most important challenges for humankind in the 21st century (Lancet Countdown 2023). The year 2023 was the hottest year on record with a global average temperature of close to 1.5 °C above pre-industrial times (Max-Planck-Gesellschaft 2024) with noticeable adverse effects and disasters such as floods, droughts, crop failures, wildfires and extreme weather events around the globe.

The public as well as the individual perception of the anthropogenic causes of climate change interact and depend on a complex interplay of several factors. Hence, indicators 5.1 and 5.2 of the Lancet Countdown Initiative support the engagement of the media providing and the individual using valid information of health related content in the context of climate change (Lancet Countdown 2024). Adapting the definition of Climate Sciences Literacy of the National Oceanic and Athmospehric Administration, the North American Association of Environmental Education (NAAEE) defines Climate Literacy as follows: "Climate literacy is understanding your influence on climate and climate's influence on you and society. A climate-literate person understands the essential principles of Earth's climate system, knows how to assess scientifically credible climate information, communicates about climate change in a meaningful way, and can make informed and responsible decisions regarding actions that may affect climate" (NAAEE 2024). Therefore, making people climate literate needs a joint effort based on educational principles and is at best not based on fear or negative emotions. As students play an important role as future (opinion) leaders in economy and society, they make a distinct target group when it comes to their perception of climate change and its consequences and, it follows, their climate literacy (Sill et al. 2023).

## *What are the Project Objectives?*

The overall goal of the project will be to provide resources for university students that aim to promote and strengthen their climate literacy integrating their individual information needs with modern computer technology. The project team will build on empirical data and the use of a text-to-image generator based on Artificial Intelligence (AI) to create meaningful information resources to help individuals making climate-friendly decision in their everyday life.

## *What methods will be used?*

One or two focus group discussions with university students will serve as the main data basis. A thorough analysis of the qualitative data will help to understand the barriers and facilitators of selecting and understanding climate and health related information and to transform the knowledge into climate-friendly action. The results will be used, among other ideas, to generate complex prompts to feed a text-to-image generator using AI to create meaningful art that represents a visual representation of the results coming from the focus groups. The project output should have the potential to be used as items for a toolbox for educational purposes.

## *What are the learning goals?*

Project members will strengthen their ability to search and synthesize scientific literature. They will gain experience in a widely used strategy of collecting and analysing qualitative data. The project members will learn how to systematically build text prompts when using AI tools. Also, they will strengthen their ability to work in a team and communicate professionally and ultimately improve their own climate literacy as an intended by-product of the project.

## *Who should join the team?*

If you are interested in joining the team, you should be highly interested in climate change and related aspects, since this is the project's main topic. Also, you should be interested in learning quite a bit about using AI tools and exploring the creative potential of text-to-image generators. You should be able to work collaboratively in a diverse team and take responsibility for the results of your work.

Interested students must have successfully passed

- module 1 (Population Health and Health Problems) AND
- module 3 (Academic Reasoning and Techniques in Health Sciences) AND
- $G_2$ (English for Global Health: Subject-related English language course) OR $I_2$ (Interkulturelle Kommunikation: Fachlicher Deutschsprachkurs)

## *What is the timeline of the project?*

The project duration will be 1 semester, starting in April 2024.

## *What about the Examination?*

The examination will be an oral examination as a group presentation (but participants will receive an individual grade). The project is worth 20 Credits. The total workload will be 600 hours (108 on site, 492 individual).

## *Contact Information*

Do you have any questions about the project? Feel free to contact me: hendrik.siebert@gw.hs-fulda.de

*Sources*

Lancet Countdown (2023): 2023 report of the Lancet Countdown on health and climate change: the imperative for a health-centred response in a world facing irreversible harms. Lancet 2023; 402: 2346-94.

Lancet Countdown (2024): Explore our data. (Accessd on 14. Feb 2024, https://www.lancetcountdown.org/data-platform/public-and-political-engagement/5-2-individual-engagement-in-health-and-climate-change)

Max-Planck-Gesellschaft (2024): 2023 – a year of climate extremes. (Accessed on 14. Feb 2024, https://www.mpg.de/21506133/2023-a-year-of-climate-extremes)

North American Association of Environmental Education (2024): What is climate literacy? (Accessed on 14 Feb 2024, https://naaee.org/programs/coalition/resources/what-climate-literacy)

Sill, TE; Ayala, JR; Rolf, J; Smith, S; Dye, S (2023): How Climate Literacy and Public Opinion Are the Driving Forces Behind Climate-Based Policy: A Student Perspective on COP27