

FLAIR Work Example

Title

Discussing social and environmental impacts of AI with students from humanities and social sciences

Activity

Social and environmental impacts of AI: from evidence to (academic) practice

Very short description

In groups of three to four, students examine current reports on the social and environmental impacts of AI and create an argument matrix outlining its key benefits and drawbacks. Using their conclusions, they discuss and transfer the important insights from the matrix into their academic practice. Each student then briefly reflects on how their perspectives on AI evolved through the research process and discussions with other groups.

Learning Outcome(s)

Upon completion of this learning nugget, students can:

- Discuss and transfer key insights from a structured analysis of AI's social and environmental impacts into informed and reflective academic practice;
- Critically evaluate various social and environmental impacts of AI in the context of their discipline-based usage of AI;
- Critically evaluate and reflect on how their own assumptions and reliance on AI have changed during the construction of the argument matrix, using explicit criteria to justify their judgments.

What will students be able to learn through the nugget?

Context

This activity is recommended for **groups of 3-4 people**, to provide optimal workload for the group members. As this activity is recommended for 1st year students whose native language might not be English, navigating through reports written in another language and in a particular jargon can be intimidating. Thus, the students in a group of this size need to put in some effort but also have a peer support to work through the texts that can, at first glance, look lengthy and hard to understand. Also, as non-native speakers of English, they may need some more time or support to analyse the reports.

This assignment is designed for a **class of up to 40-50 students**, so the classroom might ideally be on the same floor level or have movable chairs. In case of a classical auditorium and larger



group of students, students can also work in groups, but in a group of 3 people maximum, as it may be difficult to reach and hear each other in the crowd.

As part of the preparation phase of this activity, students are allowed use genAI tools (such as OpenAI ChatGPT, Google Gemini, etc) to make sense of the reports. In case the teacher plans the preparatory phase of this activity to be completed in the classroom and without the help of genAI tools, different estimated time for this activity needs to be considered.

We recommend that each group in the class has a share of the chapter or document of approximately the same size (+/- couple of pages). While some chapters are lengthier than others (see the materials provided), it is advisable to split longer texts between groups.

Estimated time for this activity is:

- 1 hour for preparations for the seminar,
- 2 hours for the discussions in the seminar, depending on the size of the class (see detailed calculation in the “Instructions”),
- 15 min for individual reflection at end of the seminar – 2h 15min for seminars matches well into 3 academic hours,
- In total, students need **3h 15min** for activities in the learning nugget.

Instructions: How is this activity used?

1. Preparation for the group work before the seminar

Each group of students needs to investigate a text focusing on social and environmental impacts of AI, using instructions we have provided in [FLAIR Learning Nugget UT student instructions.pptx](#) (please see other students’ instructions in the same file). We recommend using thorough reports from international organisations, providing credible in-depth evidence-based explanations of the matter at hand. The list of materials contains a few reports as examples, but you may add similar reports of your choice:

1. Chapter 8 “The human behind the machine: Skills and attitudes towards the future of artificial intelligence” from the OECD 2023 Skills Outlook report, focusing on impacts of AI use in the labour market - [OECD2023Report Chapter8.pdf](#).
2. Chapter 3 “Review of existing and emerging data and measurement frameworks” from the OECD 2022 Measuring the environmental impacts of artificial intelligence compute and applications: the AI footprint report, focusing on impacts of AI use on environment - [OECD2022Report Chapter3.pdf](#).
3. Chapter 4 “Societal Impacts and Challenges” from the “Generative AI Outlook Report - Exploring the Intersection of Technology, Society and Policy” by Abendroth Dias, et al (2025), focusing on societal impacts of AI - [GenAIOutlookReport Chapter4](#).

4. Report “Thinking about using AI? Report on AI environmental impact” by Green Web Foundation, focussing on environmental impacts of AI use - please follow this URL, as PDF was not provided by the authors of the report:
<https://www.thegreenwebfoundation.org/publications/report-ai-environmental-impact/>.

As most of the reports are lengthy and information intensive documents, necessary information is hard to obtain by merely reading the texts. Thus, we recommend that students should make notes of various types of impacts and potential remedies to the extent they would be able to present and explain the impacts to other students and participate in the discussion.

Estimated time per person – **1 hour**, to distribute the work within the group of students, for reading one’s share of the text, and making notes. Please note that the length of provided report chapters is not equal, thus it may be useful to split a lengthier chapter between two (or even more) groups.

2. The first part of the seminar about social and environmental impacts of AI

At the beginning of the seminar (approx. 2-3 minutes), provide a brief overview of the planned activities. Emphasise that the **final individual reflection** is a required component and determines the overall result (pass/fail). This helps students understand the purpose of the session from the start.

In the first part of the class, students work in small groups using an **argument matrix template**. They:

- identify key benefits and risks (or costs) of AI,
- use evidence from reports and sources, and
- draw conclusions based on their analysis.

The focus (social or environmental impacts) of contribution of each group may vary depending on the assigned text.

As a warm-up, allow **7–8 minutes** for students to share ideas from their notes from the reports before starting the matrix task. Then, plan **approximately 35 minutes for the groups** for completing the argument matrix.

The template is available in two formats:

- [a printable PDF](#) (for handwritten notes), and
- [an editable DOCX file](#) (for digital use).

Students can choose the format that best suits their working style.

3. The second part of the seminar about social and environmental impacts of AI



For the second part of the class, two activities are planned: a discussion and individual reflections.

Firstly, during a whole-class discussion, each group presents **4–5 key points derived from their argument matrix**.

Each point should:

- be clearly stated,
- include a brief explanation, and
- be relevant for students' own use of GenAI tools in the humanities or social sciences.

These points may be used to inform responsible AI use in the course.

To support comparison across groups, students record their points in a **shared Moodle wiki** during the seminar. Each group should assign one member responsible for adding their points to the wiki.

As groups present, similarities and differences between points from different reports are discussed. Giving peer feedback is warmly advisable.

Your role as the teacher is to facilitate the discussion by:

- encouraging students to give peer feedback,
- grouping similar ideas,
- rephrasing unclear points, and
- highlighting key themes emerging from the discussion.

The activity concludes with teacher summary, focusing on the **range and complexity of social and environmental impacts of AI**. The organized list of points from students' argument matrices is an invaluable tool for the summary.

Estimated time for the second part of the seminar:

- Each group presents their points from the argument matrix. Plan **approximately 5–6 minutes per group**. Since similar ideas may start to repeat, keep presentations concise and focused on **new or distinctive points**. Adjust the total discussion time based on the number of groups, ensuring that each group has an equal opportunity to contribute. For example, in a class of around 40 students (approximately 10 groups), you may need **up to 60 minutes** for group presentations and discussion. Additionally, allow **5–10 minutes during the seminar** to organise and refine the list of points in Moodle.
- **5–10 minutes** for the teacher to wrap up and make conclusions based on the discussion.

4. Individual reflection at the end of the second part of the seminar

During **final 15 minutes of the seminar**, students reflect on how their assumptions about AI have changed while working with the argument matrix and learning from their peers.

The reflection can be completed at the end of seminar. However, you may also allow a **24–48 hour window** after the session for students who need more time. Reflections can be submitted via Moodle (e.g. as a separate assignment or as part of a study diary).

Suggested reflection questions:

- How did my assumptions about AI change?
- Where did I encounter ambiguity or uncertainty in the evidence?
- What responsibilities do universities have when integrating AI into academic life?
- What responsibilities do I have as a student when using AI?

The individual reflection should meet the following criteria to be graded as ‘passed’:

- The reflection clearly engages with all four questions and demonstrates genuine, personal consideration of the topic rather than mere summary;
- The reflection shows sufficient depth, coherence, and effort, indicating that you have thoughtfully examined the relevant issues and demonstrating you have basic understanding of the topic.

Assessment

In the frames of this learning nugget, it is possible to assess the students’ work on **pass / fail** grade scale. We propose assessing two activities of the learning nugget: the group discussion and the individual reflection at the end of the seminar.

Although the grade scale pass / fail may seem simple, assessing students' contribution in a seminar discussion on this type of scale encourages active participation without creating excessive pressure to compete for grades. It shifts the focus from performing for a high mark to engaging thoughtfully and contributing meaningfully to the conversation. As for the teacher it is the first time ever to use this learning nugget, this approach also simplifies evaluation of subjective elements like discussion quality while being able to gather thoughts to wrap up the seminar.

The teacher can consider grade ‘pass’ when the student demonstrates basic preparation by showing familiarity with the assigned materials. A ‘pass’ is also appropriate when the student contributes in a meaningful way—by sharing relevant comments, asking thoughtful questions, or constructively responding to others. Additionally, participation that supports a respectful, attentive, and collaborative discussion environment meets the standard for passing. Being present in the classroom, but failing in these criteria, means ‘fail’.

Assessing students’ individual reflections on the social and environmental impacts of using AI tools on a pass/fail scale encourages honest, critical engagement rather than strategic writing aimed at earning higher marks. The aim of the reflection is to support students in learning to express their personal and subjective opinions, so there are no right or wrong answers in this part of the learning nugget.

A student's individual reflection can be graded as 'pass' when it clearly engages with the supporting questions and demonstrates genuine, personal consideration of the topic rather than mere summary. A 'pass' is appropriate when the work shows sufficient depth, coherence, and effort, indicating that the student has thoughtfully examined the relevant issues. In case the reflective assignment is superficial, provides irrelevant content, or shows a clear lack of effort (being extremely brief, incomplete or is submitted without demonstrating basic understanding of the topic), the grade is 'fail'. The rubric for the individual reflection is provided in Table 1 below, the contents of the rubric are ready to be copied to Moodle, if necessary.

Table 1: rubric for grading the individual reflection

Criterion	Pass	Fail
Engagement with the task	The reflection clearly engages with all four questions and demonstrates genuine, personal consideration of the topic rather than mere summary.	The reflection does not demonstrate meaningful engagement with the questions. Instead of personal consideration, there is superficial summary, irrelevant content, or largely AI-generated text without personal reflection.
Quality and depth of contribution	The reflection shows sufficient depth, coherence, and effort, indicating that you have thoughtfully examined the relevant issues and demonstrating you have a basic understanding of the topic.	The reflective assignment lacks effort, by being extremely brief, incomplete, or is submitted without demonstrating basic understanding of the topic.

Materials

PDFs to be uploaded to Moodle:

- Chapter 8 "The human behind the machine: Skills and attitudes towards the future of artificial intelligence" from the OECD 2023 Skills Outlook report, focusing on impacts of AI use in the labour market - [OECD2023Report Chapter8.pdf](#).
- Chapter 3 "Review of existing and emerging data and measurement frameworks" from the OECD 2022 Measuring the environmental impacts of artificial intelligence compute and applications: the AI footprint report, focusing on impacts of AI use on environment - [OECD2022Report Chapter3.pdf](#).
- Chapter 4 "Societal Impacts and Challenges" from the "Generative AI Outlook Report - Exploring the Intersection of Technology, Society and Policy" by Abendroth Dias, et al (2025), focusing on societal impacts of AI - [GenAIOutlookReport Chapter4](#).

Other resources:

- PPTX file containing instructions for students (some of the instructions can be copied into Moodle, some can be used in the seminar), we tried to keep all instructions in one place as there are multiple files to be handled anyway - [FLAIR Learning Nugget UT student instructions.pptx](#).
- Printable worksheet of the argument matrix – [ArgumentMatrixWorksheet.pdf](#).
- Editable worksheet of the argument matrix – [ArgumentMatrixWorksheet.docx](#).