OER 2

Collective Conflict Mapping

Fostering Reflection on Matters of Transparency in Educational Technology and AI Usage

Scenario 2

Scenario

Learning analytics and identification of students at risk

Actors

students, educators, university management, data protection officer

Summary of scenario

(presented at the beginning of the session)

A **learning analytics system is introduced at a university to track student participation, time spent on learning materials and other access patterns**. The data are used to identify students at risk of low performance and to inform assessment and support strategies. Some educators value the insights provided, while others are concerned about privacy and professional integrity. Students are often unclear about what is being tracked and how this may affect their grades. The university management has decided to put the system in place and expects the educators to use the system. However, the data protection officer also raises concerns about GDPR compliance.

> In fact, in accordance to EU regulations, leaning analytics systems need to clearly explain to users how they function, what data they collect and for what purposes. Students, educators and universities should be informed about these aspects so they can give their informed consent when using such systems.

Let's dive into these issues and try to put ourselves into the shoes of different actors involved.

And please don't worry: you don't need to be an expert in all matters around learning analytics. Just work with the knowledge you have!

Phase 1: Mapping out

Let's start with a first round of mapping key actors involved in the scenario. We start with **students** and **educators**, before adding **university management** and **data protection officer**.

For each step, read the provided statements to put yourselves more easily into the actors' perspectives. Either read the statements to your students or let different students read the statements with distributed roles.

Step 1: Positioning students and educators

Students and **educators** are of course a very diverse group, as exemplified in the following statements. When doing the mapping, in this first step, you should still try to find an overarching position for each group.

> Student statement 1: *"I am being tracked, but hardly understand which data are being collected and how they are interpreted by whom. I want clearer information about data flows and I want the possibility to oppose decisions made upon my data."*
>
> Student statement 2: *"I actually appreciate that there is objective data being collected and that I receive personalized feedback. I want good grades after all."*
>
> Educator statement 1: "*As a teacher who is focused on students' learning growth, I see learning analytics as a useful tool for early intervention and for personalizing my teaching."*
>
> Educator statement 2: "*I fear that these types of learning analytics reduce learning to simplistic metrics. They must be balanced with pedagogical autonomy and ethical responsibility, and as these systems are now, I don't see how student learning is represented properly in them."*

Now it's your turn:

- Decide on a circle size for both actors and drag-and-drop them into the conflict map. Adapt the size and, if you like, use textboxes as descriptors.
- Position both actors relative to each other and pick the arrows that best describe the relationships between them. When you are doing that, explain your reasoning. You can again use a textbox to describe the nature of the relation or adapt the arrows to your needs.
- Discuss whether everybody agrees with the positioning or would change something.

Step 2: Positioning university management in relation to students and educators

Statement **university leadership**: "*As part of the leadership of this university, I need to make sure that this university is globally competitive and provides the best education to its students. To achieve this goal, we need to early identify at risk-students and support our staff in effective intervention.*"

Now it's your turn:

- Decide on a circle size for university management and drag-and-drop the shape into the existent conflict map. Adapt the size and, if you like, use a textbox as descriptor.
- Position the university management relative to the students and authors and pick the arrows that best describe the relationships between them. When you are doing that, explain your reasoning. You can again use a textbox to describe the nature of the relation or adapt the arrows to your needs.
- Discuss whether everybody agrees with the positioning or would change something. Maybe you also need to adapt to the positions of the other actors.

Step 3: Positioning data protection officer in relation to all other actors

Statement **data protection officer**: "*As the data protection officer, I am responsible for ensuring regulatory compliance and protect both students and educators. For instance, I check if systems comply to GDPR, if there has been informed consent, or if data access is properly controlled. However, my team is very small, and we have way too few resources to tackle all problems as we would like to. Also, I find myself being caught between top-down pressure and the many concerns of educators and students*"

Now it's your turn:

- Decide on a circle size for the data protection officer and drag-and-drop the shape into the existent conflict map. Adapt the size and, if you like, use a textbox as descriptor.
- Position the data protection officer relative to the students and the educators and pick the arrows that best describe the relationships between them. When you are doing that, explain your reasoning. You can again use a textbox to describe the nature of the relation or adapt the arrows to your needs.
- Discuss whether everybody agrees with the positioning or would change something. Maybe you also need to adapt to the positions of the other actors.

Phase 2: Fine-graining the map

Congratulations! You have created a first conflict map and have discussed many of the dilemmas and conflicting interests around the application of learning analytics and related matters of transparency.

You already saw in the statements that students or educators are highly heterogenous, making it necessary to more strongly differentiate within each group. In the following steps, **we invite you to make your map even more fine-grained by adjusting the shapes and arrows to such within-group differences**.

Step 4: Differentiating types of students

- Looking back at the two statements, are there more students that like or that oppose the system (i.e., adjust the circle size)? Which other groups might there be?
- What about students with different cultural background or lacking language skills?
- What about students that actively manipulate their data to take advantage of the system?

Step 5: Differentiating types of educators

- Looking back at the statements, are there more educators that like or that oppose the system (i.e., adjust the circle size)? Which others group might there be?
- What do you think, is there a difference between junior and senior educators?
- What about educators' level of AI literacy and/or skills in how to interpret learning analytics data?

Step 6: Differentiating types of university management

- Do you think the disciplinary background of university leadership would change their view on the applied systems?
- How could cultural context matter? What about prosperity?
- What about universities with very few leadership positions in contrast to those with bigger leadership boards?

Step 7: Differentiating types of data protection officers

- To what extent does the level of training matter for the positioning of the data protection officer?
- In how far would the disciplinary background and/or technical literacy of data protection officers change their view on the applied systems?
- Think about the availability of data protection officers: are they only available for educators or also for students?

Phase 3: "What would change if…"

– using future speculations to develop agency

Whilst the first two phases focus on the disentanglement of actors' relations and an understanding of the involved complexities, phase 3 takes the crucial ETH-TECH step towards 'What's next?'.

To start this phase, you can create slide copies of the developed map within the template and then develop different scenarios within the map copies.

Use the following questions to **engage students to actively imagine different future scenarios and to develop collective agency to enhance more ethical technology and AI usage, even within given constraints**. Don't only consider realistic scenarios, but deliberately aim for hopeful, utopian, dystopian or even absurd scenarios. This can support broadening our scope of creative imagination!

How would the map change…

- If the learning analytics system automatically calculated grades and take this task completely away from educators?
- If educators and/or students would be actively asked to opt-in to the system, with no consequences if they don't?
- If there was constant transparency about which data are being collected and how they are being processed?
- If students were actively consulted before any type of learning analytics is being implemented, and if they ongoingly evaluated the system?
- If the data protection officer regularly informed students and educators about rights and regulations around technology and AI transparency?

You can, of course, imagine further scenarios – be creative and challenge the status quo!

Rounding up

Have a look at the developed conflict maps and **collectively reflect on the activity**. The following questions can help you:

- How do participants feel when looking at the map?
- What was their personal highlight during the process? What did they learn or understand differently?
- How did they feel discussing the future scenarios? Which emotions did the different scenarios trigger?

Based on the scenarios and discussions, brainstorm how this exercise could inform your technology and AI usage strategies in class/in the university with regards to transparency matters. Here are some ideas:

- Checking more intensively/ collectively investigating the terms and conditions of used technologies,
- Boycotting non-transparent technologies,
- Requesting insights to/ transparency regarding collected data (as guaranteed in the GDPR),
- Considering matters of intellectual property more carefully,
- Providing opt-in/opt-out strategies regarding data collection or technology features; requesting those options from university leadership.

Of course, these are only some ideas. You will develop many more! Also, you can use our OER on Empathetic Contract Creation to collectively define rules for future technology and AI usage in your context.

Maybe you want to engage your students with the topic further after the mapping (e.g., providing material, through group work, etc.) and revisit the map after they have acquired additional knowledge. For instance, students could engage with the ambiguous case of the UK school exam controvercy. You can also use the other ETH-TECH material, such as the Framework of Self-Reflection Tools, to facilitate interaction with the topic.

Finally, explore options for disseminating the map. For instance, share the map with colleagues, use the material for other events (e.g., exhibitions), let other classes continue with your maps, or compare results across classes. The map can further serve as foundation for essay writing, research assignments, or (artistic ways of) countermapping activities.

If you want to dig deeper into the topic:

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Rubel, A., & Jones, K. M. (2016). Student privacy in learning analytics: An information ethics perspective. *The information society*, 32(2), 143-159. https://www.tandfonline.com/doi/full/10.1080/01972243.2016.1130502.

Sepp, S. (2025). Towards More Transparency in Learning Analytics: Sharing Information with University Students Increases their Awareness of Data Collection Practices. *Journal of Learning Analytics*, 12(3), 34-46. https://doi.org/10.18608/jla.2025.8713

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Slade, S., & Prinsloo, P. (2013). Learning analytics: Ethical issues and dilemmas. *American Behavioral Scientist*, 57(10), 1510-1529. https://journals.sagepub.com/doi/full/10.1177/0002764213479366.

Tzimas, D., & Demetriadis, S. (2021). Ethical issues in learning analytics: A review of the field. *Educational Technology Research and Development*, 69(2), 1101-1133. https://link.springer.com/article/10.1007/s11423-021-09977-4.