AI PIONEERS

Artificial Intelligence in education & training

Evaluation schema for AI in education on data, privacy, ethics, and EU values

January 2025

Lead Beneficiary of the deliverable: Universidad del País Vasco/Euskal Herriko Unibertsitatea (UPV/EHU)

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EXECUTIVE SUMMARY

This document presents an evaluation schema designed to support educational institutions adopting Artificial Intelligence (AI). Its purpose is to guide institutions in ensuring they are implementing the use of AI in an ethically sound way while helping teachers and learners build the capacities needed for responsible AI use. The schema focuses on key ethical principles such as diversity, transparency, privacy, sustainability, and AI literacy.

As part of the AI Pioneers project, which aims to support the integration of AI into Adult Education and Vocational Education and Training (VET), the evaluation schema offers a practical framework to navigate AI adoption. It addresses essential topics such as AI governance, operational and pedagogical considerations, and ethical concerns like academic integrity and copyright. This framework empowers institutions to adopt AI in ways that are ethical, transparent, and aligned with educational goals, preparing both educators and students to thrive in an AI-driven future.

ABOUT THE PROJECT

The AI Pioneers project is focused on promoting and supporting the integration of Artificial Intelligence (AI) in education with a focus on Adult Education and Vocational Education and Training (VET). The project is an ERASMUS+ Forward Looking Project, starting in January 2023 and funded until December 2025.

The project aims to address a number of different issues. First and foremost, given the increasing impact of AI in education and the evolving needs of professionals in different institutions for support in their everyday use of AI and in their development of professional skills, the project aims to develop an extensive network of AI Pioneers across partner countries and beyond. The establishment of the **Reference Network of AI Pioneers** is a central component of the project and targets educators, policymakers, educational planners, developers of AI for education and other stakeholders. By bringing those most interested and involved in the use of AI to the forefront of the project the aim is to create a hub that will support those using AI in Adult Education and Vocational Education and Training and promote the development of future initiatives and AI-related educational projects.

Another key goal of the project is the development of a **Supplement to the DigCompEDU Framework** (Bekiaridis, 2024). This document outlines the skills and competences that educators need in order to use, evaluate and understand AI technologies in the context of education with a focus on Adult Education and VET. The document acts as a supplement to the European DigCompEDU Framework (Redecker, 2017) and thus aligns AI competencies to the six key areas of the DigCompEdu framework: Professional Engagement, Digital Resources, Teaching and

Learning, Assessment, Empowering Learners, and Facilitating Learner's Digital Competence. Within each area, the supplement:

1. Analyses how AI can be applied in the specific area
2. Proposes activities supporting the development of pertinent skills
3. Suggests progression levels for competency building
4. Presents potential challenges and strategies to overcome them.

Additionally, as part of the AI Pioneers project various resources are developed and disseminated. The **AI Pioneers Toolkit**, available on the project website, includes curriculum recommendations for integrating AI in education, an overview of the benefits and risks of using AI in educational settings, and resources on best practices for AI use in education (Tommasi & Perini, 2024). The toolkit also includes brief presentations of tools used for different purposes in teaching (e.g., learning assistants, tools to create teaching materials or to support peer to peer learning).

The project also addresses the aspect of ethics in the use of AI in Education by developing two related documents, the present **Evaluation Schema for AI in Education on data, privacy, ethics and values** and the **Handbook on policy and ethics in the use of AI in Education**. Both documents take into account many existing resources seeking to simplify the concepts and provide practical ways of understanding and addressing ethical issues when implementing AI.

Finally, it is worth mentioning that this project strives to disseminate its resources, organise events with the participation of members of the reference network so they can interact, share best practices and contribute to the project. Moreover, all the available resources are available in English and in partner languages (German, Greek, Italian, Portuguese, and Spanish) in order to increase their impact and usability.

AI Pioneers project partners

Country	Partner	
Cyprus		Centre for Social Innovation (CSI)
Estonia		European Distance and E-Learning Network - EDEN
Germany		Federal Institute for Vocational Education and Training - BIBB
		Institute for Technology and Education (ITB), University of Bremen (Coordinator)
Greece		Active Citizens Partnership
Italy		Centre for Action Research in Vocational Education and Training - CARVET, Università di Verona
		Federazione Nazionale CNOS-FAP
Portugal		Associação Universidade-Empresa para o Desenvolvimento - TecMinho
Spain		Universidad del País Vasco/Euskal Herriko Unibertsitatea (UPV/EHU)
		Pontydysgu

OVERVIEW OF THE EVALUATION SCHEMA

Aim of the evaluation schema

According to UNESCO´s AI AUDIT (2023a) and UNESCO´s Guidance For generative AI in education and research (2023b) educational institutions adopting AI should conduct regular audits and assessments at multiple levels: ensuring **AI systems adhere to ethical frameworks** while **developing the capacity** for teachers and learners to use these tools effectively and ethically.

The aim of the evaluation schema is to support centres using or planning to use AI. Specifically, the focus is on identifying ethical concerns and developing a policy/strategy that can support/promote AI use in the centre while adhering to ethical guidelines that have been put forward: Diversity and equity, transparency and accountability, privacy and data protection, safety and security, sustainability and social well-being, empowerment of teachers/teaching and learners/learning, democratic participation in educational policy planning and AI practices, autonomy, ethical design (related to sustainability and accessibility), commercialization (Şenocak et al., 2024), teacher and student agency and AI literacy.

In order to make the information in this document more accessible, we have also created a **Genially presentation** with its main points.

Organization of the evaluation schema

In order to achieve this, the evaluation schema is organised in the

sections presented in Table 1. Each section is briefly explained in the following pages. Subsequently, the document focuses on each of these sections in depth, providing specific questions that can guide individuals and organisations when evaluating AI implementation in educational centres.

Table 1. *Sections of the evaluation schema*

Assessing current AI use, AI maturity and related AI ethical concerns
AI governance and monitoring
Operational considerations
Pedagogical considerations
Other considerations

Assessing current AI use, AI maturity and related AI ethical concerns: This first section provides guiding questions to help gain a general idea of the centre's AI maturity based on their current use and understanding of AI and other technologies. The concept of AI maturity (JISC, 2022) evaluates how extensively institutions use AI and other digital technologies and how well this usage is supported and endorsed at an organizational level.

The following sections are based on Chan's (2023) dimensions, adjusted

with Şenocak et al. 's (2024) review and the European Commission's (2022) ethical guidelines. They are also informed by works on AI ethics in education (e.g., Holmes et al., 2022, 2023; Nguyen et al., 2023; Council of Europe, 2023) and guidelines from educational and other institutions (e.g., AI HLEG, 2019; Chinese University of Hong Kong, 2023; Monash University, n.d.; Russell Group, 2023; University College London, n.d.).

AI Governance and monitoring: This section is relevant to the centre's senior management and IT staff or AI providers/developers collaborating with the centre to provide AI tools. Key issues such as adherence to relevant regional/national/European policies and legislation, issues of privacy and data protection, transparency and accountability, diversity, non-discrimination, fairness and equity are addressed in this section. As readers will note, some of the issues such as adherence to relevant legislation and data protection laws are straightforward to address when laws are already in place but other issues such as non-discrimination and fairness can be more complex. These sections aim to distill the core concepts and provide guidance for institutions and individuals on how to best serve their students and staff, taking into account available information and current policies.

Operational considerations: This section is focused on teachers, learners, and IT staff. Here we consider ethical issues related to training and providing support for teachers, trainers, staff and students regarding AI. Providing this training allows the centre to ensure human agency and oversight when using AI, to promote AI literacy, thus empowering both teachers and learners, to foster democratic participation in educational policy planning and AI practices and finally, to support equity and

accountability.

Pedagogical considerations: This section focuses almost exclusively on teachers, trainers and students, those most involved in the pedagogical aspects of AI use in education. The guiding questions also support the development of policies that encourage the empowerment of teachers and learners in their respective tasks and that push for students to be better prepared for an AI-driven workforce (particularly important in the context of Adult Education and Vocational Education and Training: also see Attwell et al., 2021; UNESCO, 2019). Moreover, this section takes into consideration common ethical dilemmas related to the use of AI in assessment as well as issues related to copyright. Lastly, the section contemplates whether and how the potential influences of AI on the development of competencies and societal well-being can be addressed.

Other considerations: This fourth and final section of the evaluation schema concentrates on a number of issues that are hard to address (Şenocak et al., 2024). These are sustainability, ethical design and commercialization.

EVALUATION SCHEMA

Assessing current AI use, AI maturity and related AI ethical concerns

The aim of this initial section is to derive a general idea of the centre's AI maturity based on their current use of AI and other digital technologies (JISC, 2022) and the existence of related policies. Addressing these questions will help assess the complexity and support needed to implement or expand AI use in the educational institution. **In the following text boxes we present some guidelines on how to interpret possible answers.**

1. **Which of the following technologies are currently used in the educational centre?** *Learning analytics, Cloud Computing, Big data/data mining, machine learning, Virtual reality, Augmented reality, Mobile learning, Internet of Things, Adaptive learning, Remote learning, 3-D technology, Robotics, online networking platforms/social media, E-learning platforms, E-assessment*

2. **Do any of these or other technologies used in the educational centre rely on AI?**

- Centres that already use multiple technologies are better positioned to implement AI, as they likely have both the technical infrastructure and staff expertise to deploy it responsibly, understanding its limitations and ethical implications.
- If one of the technologies already in use relies on AI, a first step would be to consider what this technology does and who interacts with this AI or is exposed to it. It is important

to consult with staff and students who are using/will use the AI in order to ensure democratic participation in educational policy planning and empowerment.

3. Does the centre have an official AI policy/strategy?

- Even if the centre is using AI, this does not necessarily mean it has an official AI policy/strategy. However, it is important to consider developing such a policy/strategy at the same time as considering implementing/expanding the use of AI.
- Some things to consider are: the ethical use of AI, legal and regulatory compliance, data privacy and security, integrating relevant AI in the curriculum, potential collaboration with industry that can facilitate both AI integration in the curriculum and staying updated on AI advancements, resource allocation, staff training.
- There are multiple guidelines addressing AI policy and ethical concerns. While AI legislation continues to evolve, the EU AI Act (European Parliament and Council of the European Union, 2024) stands out as a key document to consider, alongside regional and national legislation, when developing an official AI policy or strategy (this is further discussed in the next section on **AI Governance and Monitoring**).

4.

a. Does the educational centre officially endorse and support the use of specific AI tools, or is their use limited to individual teachers who have chosen to incorporate them independently in their teaching practices?

AI not in use	• If individuals are not using AI officially or unofficially there will be more steps to take, including strategy/policy but also training and awareness raising regarding the use of AI. • When introducing the use of AI with its benefits and limitations, raising awareness about ethical concerns is always important but more so when individuals have not been exposed to its use previously.
AI in use but not officially	• If AI tools are being used unofficially, it is important to identify their current purposes and consider whether the centre should officially endorse or support these uses. • Depending on the situation the centre could start by supporting AI use for the purposes it is already being used for unofficially and plan to expand to other areas in which it could be useful. • Training all individuals will remain essential to ensure equal access to these tools, though existing users will be available to provide additional support. • If the centre does not wish to support this use of AI it should be clearly stated in the AI strategy/policy and acceptable alternatives should be considered.
AI officially in use	• If the educational centre supports specific AI tools, it should review its AI strategy (if one exists) and consider adjusting it to expand AI use to other areas, if desired. • If no AI strategy exists, the centre can start developing one by focusing on areas where AI is already used and gradually expanding. Support and training will be essential throughout.

b. If the answer to 4a is "yes", does the educational centre provide training/support for the use of these tools?

i. Both support and training are provided
ii. Support is provided by technical staff but not training
iii. Support is provided informally by those who already use the tools but no training is provided
iv. Neither support or training are provided

c. If the answer to 4a is "yes", who has access and uses these tools?

Everyone, administration, teachers, trainers, learners.

- While many individuals may be comfortable using a new tool without specific training and troubleshooting issues, this will not always be true for everyone. As a result, some individuals will be at a disadvantage if the centre does not provide training.
- There are free and paid versions of many AI tools. If the centre decides to incorporate an AI tool it is important to ensure access for everyone.
- Ensuring both access and training avoids the risk of increasing the **digital divide** between users of AI. They also promote transparency, fairness, accountability, minimise discrimination, while empowering staff and students, and maintaining human oversight. The following sections will also provide some more information regarding these issues.

AI Governance and Monitoring

This section is relevant for the centre's senior management, IT staff, or AI providers/developers. The section poses questions that should guide individuals and centres to understand whether they have taken into account **relevant regional/national/European policies and legislation, issues of privacy and data protection, technical robustness and safety, transparency and accountability, diversity, non-discrimination, fairness, and equity.** The questions are separated into subsections that reflect these categories.

For many centres, some of these questions will need to be addressed by the companies or knowledgeable individuals involved in the implementation of AI. It is important to consider that these questions can guide the centre to ensure sufficient oversight for the purposes the tool will be used for, as well as transparency and accountability. Once again **in text boxes we present some explanations regarding the aim of each question and guidelines to their interpretation.**

Adherence to relevant regional/national/European policies and legislation

1. **What policies and regulations have schools included in their decision-making processes on the use of AI to date?**
2. **Are there regional, national or European policies and regulations that must be taken into account?**

- Considering the above questions, the centre can begin outlining the key issues to address when developing or updating its AI strategy/policy and gain a clearer understanding of the extent of its responsibilities.

- The new **EU AI Act** (European Parliament and Council of the European Union, 2024) establishes a **shared responsibility** approach, where **AI providers, developers** and also **deployers** all play a role in ensuring compliance with AI regulations. The EU AI Act classifies AI systems into **different risk levels**, with distinct obligations for each. These classifications are designed to ensure the safety and ethical use of AI. Below are the primary classifications:
    - **Unacceptable Risk**: AI systems that pose a direct threat to people's safety or fundamental rights are banned. This category includes AI systems used for cognitive behavioural manipulation, social scoring, and real time biometric identification (e.g., facial recognition). Exceptions for certain law enforcement use cases may apply in specific, limited circumstances.
    - **High-Risk**: AI systems that negatively affect safety or fundamental rights are considered high risk. These include systems used in critical infrastructure (e.g., transportation, healthcare) and sectors like **education and vocational training**, where they may influence decision making or access to opportunities (e.g., AI used in student assessments, admissions, or personalized learning). Educational institutions may be deployers of these high risk systems, and they (as well as the system developers and providers) are responsible for ensuring compliance with transparency, safety, and fairness regulations. High risk AI systems must undergo rigorous assessments both before and throughout their lifecycle.
    - **Minimal or Limited Risk**: AI systems that pose minimal risks to individuals' safety and rights are subject to lighter regulations. While these systems still need to be assessed for their potential impact, they are not subjected to the stringent requirements of high risk systems.
- While **AI providers and developers** are primarily responsible for ensuring that their systems meet legal requirements, particularly for high risk systems, **deployers** (including educational institutions) are responsible for ensuring that the AI systems they use comply with these regulations. The shared responsibility approach means that institutions must verify that the AI systems they deploy are in line with the required **risk classifications**, and, in some cases, will need to conduct oversight to ensure that these systems continue to meet legal and ethical standards.
- Moreover, while the EU AI Act sets out who is responsible for AI system compliance, the liability regulation related to AI systems is still evolving (European Commission, 2022). The EU plans to update

liability regulations in the coming years, which will clarify how liability is assigned.

Issues of privacy, data protection, technical robustness and safety

3. Is personal/sensitive data being collected by the AI tool(s) (to be) used in the educational centre?

- Many AI tools can be used without collecting personal/sensitive data. If this is the case then the most simple approach is to consider whether the particular tool is aligned with current national/regional/European legislation. For example:
    - Is the educational centre in compliance with relevant data protection regulations (e.g., the GDPR published by the EU in 2016)?
    - Does it have a system in place to avoid data breaches?

  Issues of privacy and data protection are complex, and in most cases, it is challenging for a centre to ensure compliance independently of the AI provider. According to the EU AI Act, the responsibility for ensuring privacy and data protection compliance is likely to rest with AI developers and providers, and this compliance will be evaluated by an external organisation rather than the educational centre.
- It is important to also consider:
    - **What/how much** data is collected
    - **Who has access** to this data
    - **How the data is used**
    - Whether the amount of data is **more than necessary**
    - Whether individual users can **withdraw their consent** to their data being used (also related to user autonomy)
    - Whether any **data breaches or inadvertent sharing of personal/sensitive information** have occurred and, if that is the case, what measures have been taken to avoid similar issues in the future

  The Institute for Ethical AI in Education, in its 2021 report, suggests it is important to strike a balance "between privacy and the legitimate use of data for achieving well defined and desirable educational goals" (The Institute for Ethical AI in Education, 2021, p.8)

  Additionally, educational institutions must be aware of the broader regulatory framework affecting AI tools, including the **Digital Services Act** (DSA, European Parliament and Council of the

European Union, 2022), which sets out additional requirements for online platforms. The DSA mandates greater transparency and accountability from platforms, including those using AI, particularly in terms of content moderation and the handling of user data. Institutions must ensure that AI systems used in education comply with both the **GDPR** and the **DSA** to ensure privacy, transparency, and user safety.

4. **How aware are employees of the importance of data privacy and their role in protecting it? Do employees receive data privacy and protection training regularly?**

- It is important for the centre to raise awareness and teach staff including trainers and teachers about data privacy and protection. This ensures that they have a better understanding of how to protect their own data as well as the data they work with.
- Such training should be organised periodically (e.g. it could be organised yearly as well as being included in onboarding processes).

Diversity, non-discrimination, fairness and equity

5. **Is there a free version of the tool and if not, can the centre ensure access to all its members? More generally, can the centre ensure accessibility for all users? Are there barriers to its use by some individuals?**

- When a centre has decided to use AI for specific purposes then ensuring equal access to this AI tool is the responsibility of the centre. Otherwise it could increase the digital divide and other inequalities between employees and learners.
- The Institute for Ethical AI in Education (2021) suggests a number of ways to ensure equity:
    - Ask the AI provider/developer to confirm measures are taken to **mitigate biases in design and training**
    - Consider as part of the centre's AI strategy/policy **how to reduce the digital divide**
    - Consider whether the AI tool(s) are **accessible to users with special education needs or disabilities** and ask the AI provider/developer about this aspect

  If accessibility issues arise it is crucial to address them in order to

ensure all users can fully benefit from the AI tool.
- The Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law (2024) underscores the importance of accessibility, fairness and non discrimination, which educational institutions must reflect in their AI strategies.

6. Is the content appropriate and adjusted to the target-group's needs?

- When an institution implements an AI tool, it becomes responsible for the content available to its users. While content management may be less complex in Adult and Vocational Education where most learners are adults, it remains important to ensure content is appropriate, inoffensive, and suitable for the target audience.
- Once again, **discussing these concerns with the AI provider/developer** is important. However, it is also important to consider **implementing a process to report issues with inappropriate content**.

7. Are there biases and how can they lead to unfairness or discrimination?

- The issue of bias in AI tools has been discussed extensively. The European Commission's (2022) guidelines suggest posing the following questions:
  - Are there procedures in place to ensure that AI use will not lead to discrimination or unfair behaviour for all users?
  - Does the AI system documentation or its training process provide insight into potential bias in the data?
  - Are procedures in place to detect and deal with bias or perceived inequalities that may arise?

(European Commission, 2022, p. 20)

- Once again, the above are questions the educational centre can discuss with the AI provider/developer particularly focusing on whether this bias can lead to discrimination or unfairness.
- This is particularly relevant if the AI tool is involved in a **decision-making process (e.g., admissions, assessments)**. If this is the case then there are a few things to consider:
  - Firstly, the centre must understand the potential biases that may arise and recognize that the use of AI in these contexts falls under the high risk classification according to the EU AI

Act, requiring compliance with strict regulations.
    - If the centre decides to use the AI tool it is crucial to inform users of this bias and ensure that this is taken into account, thus ensuring human oversight in the process.
    - For example, if the AI tool is used in **assessment** and it could put students with special educational needs at a disadvantage then alternative ways of assessment may need to be considered or ways of correcting for this bias. Biases often occur due to the dataset on which the AI tool was trained so this is something that can be taken into account or improved. Similarly, if the potential bias could occur in **admissions** then it is important for the people supervising the process to correct this bias.
- If the AI tool is not involved in these processes then it is still important to discuss the existence of biases and how these may influence interaction with the tool, the content it produces, etc. Teaching users including staff, teachers, trainers and learners about bias is essential. There are many resources that are already available to teach about bias in AI and the **AI Pioneers Handbook on policy and ethics in the use of AI in Education** is also a good starting point.

Transparency, accountability and oversight

8. Is the purpose of using the AI tool clear to all individuals involved (students, teachers, technical staff and administrators)?

- Explaining why an AI tool is being used in a specific context is important to help individuals understand its purpose and evaluate whether it fulfills that purpose. The purpose of the tool should be explained in accessible language through information sessions, handouts or online and stakeholders' questions and concerns should be addressed.

9. Is there a procedure in place that permits stakeholders to present concerns and feedback regarding the use of the AI tool and the influence it has on teaching, learning and overall well-being?

- Stakeholders including students, teachers, administrative, and IT staff should be able to provide feedback on the use of the AI tool. This could be implemented in different ways (e.g., email, suggestion box, periodic meetings) and contributes to accountability, democratic participation and long term monitoring (see question below).

10. How does the centre plan to monitor/audit the AI tool's performance long-term in order to ensure overall alignment with intended outcomes?

- While part of the responsibility for ensuring compliance with the EU AI Act lies with the AI developer and provider, it is essential for the institution to design a plan to monitor and audit the AI tool's performance and its impact on educational and other outcomes over the long term. This ensures that the AI tool continues to align with the values considered during its initial implementation. Establishing benchmarks to evaluate, among other things, the tool's impact on educational outcomes, potential biases, and deviations from its intended purpose is critical. Various approaches to monitoring can be used, such as collecting feedback from stakeholders or conducting performance audits. Ultimately, this approach strengthens democratic participation and ensures human oversight.

Operational Considerations

This section is relevant to teaching, and learning and IT staff (Chan, 2023). In this section we consider ethical issues related to training and support for teachers, trainers, administrative staff and students regarding AI in order to ensure human agency and oversight, support AI literacy and ethical AI use as well as democratic participation in educational policy planning and AI practices. The questions can also promote equity and accountability.

The questions are separated into two subsections: **ensuring human agency and oversight, ensuring training/support for AI implementation/use**. **In text boxes, we present guidelines to help interpret possible answers and indicate next steps that can be taken**.

Ensuring human agency and oversight in the teaching process

We consider that the following questions put forward by the European Commission in the Ethical Guidelines published in 2022 (European Commission, 2022) can be very useful in evaluating this aspect.

1. **Is the teacher role clearly defined so as to ensure that there is a teacher in the loop while the AI system is being used? How does the AI system affect the didactical role of the teacher?**
2. **Are the decisions that impact students conducted with teacher agency and is the teacher able to notice anomalies or possible discrimination?**
3. **Are procedures in place for teachers to monitor and intervene, for example in situations where empathy is**

required when dealing with learners or parents?

4. **Is there a mechanism for learners to opt-out if concerns have not been adequately addressed?**
5. **Are there monitoring systems in place to prevent overconfidence in or overreliance on the AI system?**
6. **Do teachers and school leaders have all the training and information needed to effectively use the system and ensure it is safe and does not cause harm or violate rights of students?**

(European Commission, 2022, p.19)

- It is critical for teachers to clearly understand how they must interact with and oversee AI procedures, especially those related to decision making, assessment, and student support. Teacher agency remains paramount, and AI's role should be to facilitate tasks while allowing teachers to maintain their teaching style, ensuring that AI outputs are adapted to both individual needs and goals as well as broader instructional objectives. As AI is increasingly integrated into education, there are growing discussions regarding the future responsibility of teachers. While teachers must continue to exercise caution in the use of AI, it is expected that **the EU AI Act** (European Parliament and Council of the European Union, 2024), along with the upcoming **AI liability regulations** (aiming to build upon the European Commission's proposal in 2022), may limit teachers' direct responsibility for certain AI driven decisions, as these regulations focus on the accountability of AI providers, developers and deployers rather than individual educators. Nevertheless, teachers should still remain well informed about AI's operation and its implications in their classrooms.
- When AI is used in decision making, it is essential for teachers to understand that they generally maintain the ultimate responsibility for the educational outcomes and decisions related to their students. For instance, if an AI driven tool is used for formative assessment, teachers need to interpret the information and analysis provided by the AI tool rather than follow recommendations mechanically. Teachers should also be aware of the potential for bias and discrimination in AI outputs and must be equipped to address and correct any issues that arise. This balance ensures that AI enhances, rather than limits, the teacher's role as a facilitator of learning. The **explainability of AI systems** could

play a key role here since understandable explanations of how AI tools generate their decisions or recommendations could support teacher agency and confidence in using these tools (Khosravi et al., 2022).
- Many situations in educational contexts require empathy, which AI cannot fully replicate. This includes understanding learners' emotional and mental states, and for younger students, navigating complex family dynamics. While AI can play a complementary role in certain teaching and learning processes, its primary function should be to support and facilitate the teacher's ability to provide the necessary emotional guidance and support that students need to reach their learning goals.
- Having the option to opt out of AI driven processes when concerns (particularly in relation to learning needs) arise promotes transparency and student agency. Establishing such a mechanism assures students and parents that they have control over AI's influence on their learning experience. For example, if a personalised learning tool based on AI fails to recognize areas where the student needs more challenging resources it should be possible to consult this issue and either adjust the AI settings or temporarily opt out of the recommendations entirely.
- The issue of regular monitoring and audits has already been raised in the previous section. This question highlights that these audits should include questions tapping into whether stakeholders may be relying too heavily on AI, especially in decision making processes in order to avoid unquestioning acceptance of its recommendations and undermining human professional judgement.
- The following questions tackle the issue of training more specifically but it is worth mentioning that this question particularly highlights the role of teachers and school (or educational centre) leaders in safeguarding the rights of students.

Ensuring training/support for AI implementation/use

7. Is there sufficient training/support for all individuals who will interact with the AI tools?

- The centre must provide adequate and regular support/training. This is essential to secure human oversight, agency, as well as transparency and accountability when using AI tools for both basic and advanced users.
- It also allows individuals to use the tools to their full potential, thus empowering them in their teaching or learning. This aspect is

considered in greater depth the pedagogical considerations.

8. Is there sufficient training/support available regarding the ethical use of AI?

- The centre should also dedicate training sessions to ethical concerns regarding AI allowing to:
  - Raise awareness
  - Share/discuss concerns
  - Present the centre's AI strategy/policy and discuss it with users
- This will support human agency and oversight but also contribute to democratic participation in educational policy planning and AI practices.

9. Is the AI tool easy to use?

- When the AI tool is meant to be used by teachers, trainers, learners and generally staff who are not experts in informatics and technology, it is important to keep in mind that the tool should be simple so individuals can access and use it without excessive training that will reduce the time they have to dedicate to other activities.
- Ease of use is also likely to contribute to equal access for all.

Pedagogical Considerations

This section is related to teachers, trainers and students (learners). Its aim is to promote their **empowerment** and ensure students are prepared for an AI-driven workforce. This aspect is particularly important in the context of Adult Education and Vocational Education and Training. Moreover, it takes into consideration common ethical dilemmas related to **AI use in assessment, copyright and intellectual property rights** but also taps into evaluating whether there is a **balanced approach to AI use in teaching/training/learning** and how AI may influence the **development of competencies but also societal well-being**.

In this case, the questions are presented in five subsections. Once again, the information in **the following text boxes** aims to guide users/educational centres in answering the questions and evaluating their answers.

Empowering teachers and teaching

1. **Is there support for teachers/trainers so that they can adjust their teaching to the use of AI? For example consider the following aspects:**
    a. Is there support regarding adjustment of the curriculum and activities to include AI for teaching or teaching aimed at developing AI skills?
    b. Is there support to adjust assessment to include or exclude the use of AI (for example, adjust questions so AI can be used or opt for in person, paper and pencil assessments to avoid AI use)?
    c. Are there meetings/workshops discussing the degree of human oversight of AI tools and maintenance of control over decision-making?
    d. Is there support to develop DigCompEdu Areas (Professional Engagement, Digital Resources, Teaching and learning,

Assessment, Empowering Learners, Facilitating Learner´s Digital Competence)?

- AI can help teachers by automating repetitive tasks and freeing up time for more creative work, but training and support are crucial for this change, no matter a person's educational or economic background.
- The centre should provide opportunities to educate and support AI users through internal or external seminars/workshops, as well as online and work based learning options. All of these formats offer valuable avenues for learning and can be tailored to accommodate diverse preferences and circumstances.
- Encouraging collaboration between staff and sharing of experiences/materials etc. can also be beneficial in creating a community and keeping up to date with developments.
- To develop AI literacy, educational institutions can draw on established frameworks, such as UNESCO's AI Competency Frameworks for Students and Teachers (UNESCO, 2024a; UNESCO, 2024b), which outline the skills and knowledge necessary for effective engagement with AI technologies. The AI Pioneers Supplement to DigCompEdu (Bekiaridis, 2024) also highlights the AI skills required by teachers in educational contexts.

Copyright and intellectual property

2. **Are the datasets used to train the AI sourced ethically and legally?**
3. **Who owns the rights to AI-generated content?**
4. **Does this use align with ethical and academic standards?**

- As generative AI tools become more prevalent in educational settings, issues surrounding copyright and intellectual property are increasingly important. While regulatory frameworks are evolving to protect creators' rights, challenges persist in tracing the origins of AI generated content (UNESCO, 2023b), and debates continue over the intellectual property rights of such content. Additionally, questions about the ethics and legality of the datasets used to train AI models, particularly regarding proper permission and licensing, remain unresolved. These uncertainties complicate the ethical and legal use of AI generated content in education. Educators and students need to stay informed about these debates and assess

	whether their use of AI generated content may infringe on copyright or intellectual property laws. The above questions may help guide this evaluation.

Ensuring students are prepared for an AI-driven workforce

5. Does the centre provide practical training in AI tools that are used in the specific field of study/training (living)?

Yes	• If the centre already includes this type of training in the curriculum then it is important to maintain and review ensuring that all students can take full advantage of it.
No	• If the centre does not yet include this type of training it is important to prioritise it in the curriculum. • The centre could create a research team investigating what AI is being used for in the field of training and reach out to industry and organisations for insight and potentially even for support in providing this training (if it lacks the resources to do so independently). • This can be done gradually for different courses/programs but will be a continuous process given the leaps in the development of AI and its increasing use in multiple fields. • Practical AI training equips students with real world skills for the job market and it is crucial that it be provided consistently across courses/programs. While it is hard to predict which tools will be in use in a specific field in 5 years time, it will be easier for an individual with practical experience in AI to adapt to new AI tools.

6. Does the centre provide general training (seminars/workshops/resources) supporting the development of students' AI-specific skills (e.g., prompt engineering, ethical considerations)?

- While job specific AI training remains crucial in today's evolving labour market, understanding commonly used AI tools (such as search engines, face/voice recognition, and large language models) helps ensure individual autonomy, agency, and empowerment.
- Ethical issues are particularly important and should be explained with practical examples and discussed.

Common ethical aspects related to assessment and AI, academic misconduct

7. **If AI tools are being used in assessments, do they align with fair and inclusive evaluation practices? More specifically:**
    a. Does the AI system inadvertently favour certain student groups?
    b. Are the metrics it uses relevant and representative of each student's abilities and aligned to the curriculum?
8. **How can the centre ensure that AI does not replace but rather supports educators in assessing student learning? More specifically:**
    a. Does the AI system play a supporting role in assessments by providing data to assist teachers, rather than replacing their judgment?
    b. Does the teacher have final authority over grades and evaluations?

- Using AI in assessment allows educational centres and teachers to track progress more often, providing standardised feedback, and grading certain types of assignments. This can potentially improve the learning experience.
- Nevertheless, it is crucial that using these AI tools is not a step back in fairness and inclusivity. Institutions should ensure that the AI's assessment methods do not lead to bias and that all students, regardless of background, are evaluated equitably.
- AI can be used to supplement evaluation, to provide more ongoing assessments during the learning process and facilitate teachers so they can attend to more students and cater to their specific needs while spending less time on certain tasks. However, fully automating grading and evaluation is not the goal and teachers should always

maintain oversight and be responsible for final decision making since they have the capacity to consider the abilities of the student in different contexts and types of tasks and understand their educational needs and progress in a way that is not possible solely based on AI.

9. Are students educated about the ethical use of AI in learning and assessment?

- The school must outline in its AI policy or code of conduct the specific rules that must be followed in relation to the ethical use of AI in learning and assessment.
- Students and teachers must understand when AI use is appropriate for learning, when they need to disclose its use, and when it is prohibited. A clear understanding of AI's limitations and ethical implications in education is essential for maintaining academic integrity and accountability.
- Beyond outlining the rules in an official document, providing training via workshops, learning pills or other resources is the best way to educate on the ethical use of AI for learning and assessment.

10. What measures are in place to prevent academic misconduct related to AI?

- While the use of AI in assessment raises valid concerns, it is important to focus on fostering a fair and responsible approach to using AI in educational settings, rather than solely emphasizing the risk of academic misconduct. Instead of relying on AI detection tools, which currently seem to be unreliable or biased at least if they are not trained based on adequate datasets (Jiang et al., 2024), it may be more effective to rethink how assessments and learning activities are designed.
- One approach is to focus on designing assessments that encourage authentic engagement with the learning process. For example, assessments can be designed to promote critical thinking and problem solving, areas where AI may not fully replicate human reasoning. Tasks like in class discussions, project based assignments, and oral presentations can make it difficult for students to rely solely on AI tools while fostering deeper learning.
- Another strategy is to embrace the use of AI as a legitimate support tool in assessments, rather than viewing it purely as a potential source of misconduct. By integrating AI in a way that encourages its responsible use, institutions can adjust assessment criteria to

account for AI assisted work. Some institutions, like University College London, have provided guidelines on how to incorporate AI as an assistive or integral component of assessment, aligning with the growing acceptance of AI as a learning tool rather than a threat (University College London, n.d.).

Towards a balanced approach to AI use in teaching/training/learning and how AI may influence the development of competencies but also societal well-being

This subsection may be more complicated to evaluate and is something that should be considered in the long term. The aim is to use the following questions in order to understand how the use of the AI tool(s) is affecting teaching and learning, whether or not it has led to improvements and how it has affected well-being. The first two questions are based on the report published by the JISC in 2022 which discusses the possibilities of AI to extend capabilities and increase capacity.

11. **Has the use of AI allowed teachers/trainers to save time thus increasing the capacity of the educational centre?**
12. **Has the use of AI improved the teaching materials and methods thus extending the capabilities of the centre?**
13. **Has AI implementation improved or worsened assessment quality including fairness?**
14. **Has AI implementation improved or worsened accessibility?**
15. **Has AI implementation improved the personalisation of teaching content?**
16. **Has AI implementation improved or worsened learner**

engagement?

17. Has AI implementation improved or worsened learner performance/grades/outcomes/access to the labour market?

18. How is AI implementation influencing the development of students' transversal or 21st century skills (UNESCO, 2014; Van Laar et al., 2017; Vincent-Lancrin & van der Vlies, 2020) and emotional well-being? Consider the following skills/aspects:

a. Digital literacy
b. Collaboration, communication and teamwork (interpersonal skills)
c. Emotional well-being and intrapersonal skills (e.g. self-motivation, perseverance)
d. Creativity, critical thinking and problem solving
e. Global citizenship

- While it may be difficult for the centre to evaluate each of these aspects, it is important to consider the benefits and potential drawbacks to the use of the AI tool(s) and try to mitigate their negative consequences.
- One relatively simple approach is to have regular meetings (for example, at the end of a teaching module, semester or year) and ask stakeholders their opinion about the above questions. Separate meetings could be held with students, teachers or trainers and administrative or IT staff. Keep in mind that depending on the AI tool being used, some of the questions may not be relevant so they can be eliminated. For example, if AI is not being used for assessment Question 10 can be omitted.
- Participating in research related to these aspects or dedicating some time to review the existing evidence can also help to evaluate these issues although it is admittedly time consuming and not always an option for all centres.

Other Considerations

This final dimension is related to certain issues that are more complex to address but regarding which awareness is critical and gradually better approaches to addressing them should be found. More specifically: sustainability, ethical design and commercialization.

1. How sustainable and environmentally friendly is the AI tool?

a. What is the energy usage of this tool, and are there options for using less resource-intensive versions?
b. Are the companies behind the tool committed to sustainable practices, such as using renewable energy for their servers?

- AI has a large environmental impact and addressing sustainability issues is an important step as we move forward (Van Wynsberghe, 2021). Educational centres could therefore consider how to ensure sustainability either by selecting less resource intensive AI tools and/or by selecting tools and companies following more sustainable practices.

2. Is the design of the AI tool ethical?

a. Does it incorporate universal design, is it accessible, and does it meet the needs of students with special educational needs?
b. Does it avoid addictive features that could encourage overuse and dependency and ensure security?

- Ethical design is related to the creation of AI tools that are inclusive, safe and support student well being.
- It can be achieved firstly by following the Principles of Universal Design in Learning (CAST, 2024). By incorporating Universal Design Principles, educational AI tools can better serve diverse learners, including those with disabilities or learning differences, fostering an inclusive learning environment. For example, universal design principles can include features like adjustable font sizes, text to speech capabilities, and alternative content delivery methods.
- Another approach to designing AI tools ethically is considering the

potential of tools to be addictive, encouraging excessive engagement or overuse. This is also an essential consideration given that there are increasing studies showing the effects of excessive screen time, social media or internet addiction on mental health (Tang et al., 2021; World Health Organisation, 2015).

3. Is the data collected by the AI tool used currently or could it be used in the future for commercial purposes?

- In the **AI Governance and Monitoring** section we have already considered the issue of personal or sensitive data. However, even when this data is not collected by the AI tool, other data may still be collected and used for commercial purposes.
- For example, AI based personalized learning platforms may gather anonymous data on students' progress, strengths, and weaknesses, which can be used to improve the platform and possibly sold to third party companies that create other educational products and are interested in learner profiles.
- Centres should know whether this is the case for the AI tool they are using and whether stakeholders are aware and can potentially opt out of their data being used. Many centres or individuals may not be against their data being used for commercial purposes, but it is important that they are informed and able to decide.

4. Is the AI tool open-source?

- When AI tools are open source then users can access and modify them. This can contribute to better transparency, data protection, safety and oversight (Yan et al., 2023), and also to flexibility and customisation.

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