AI-Safe: A conceptual tool for assessment design - printable version

Noun Project icons: for credits, see https://aisafedesign.com/who-we-are/
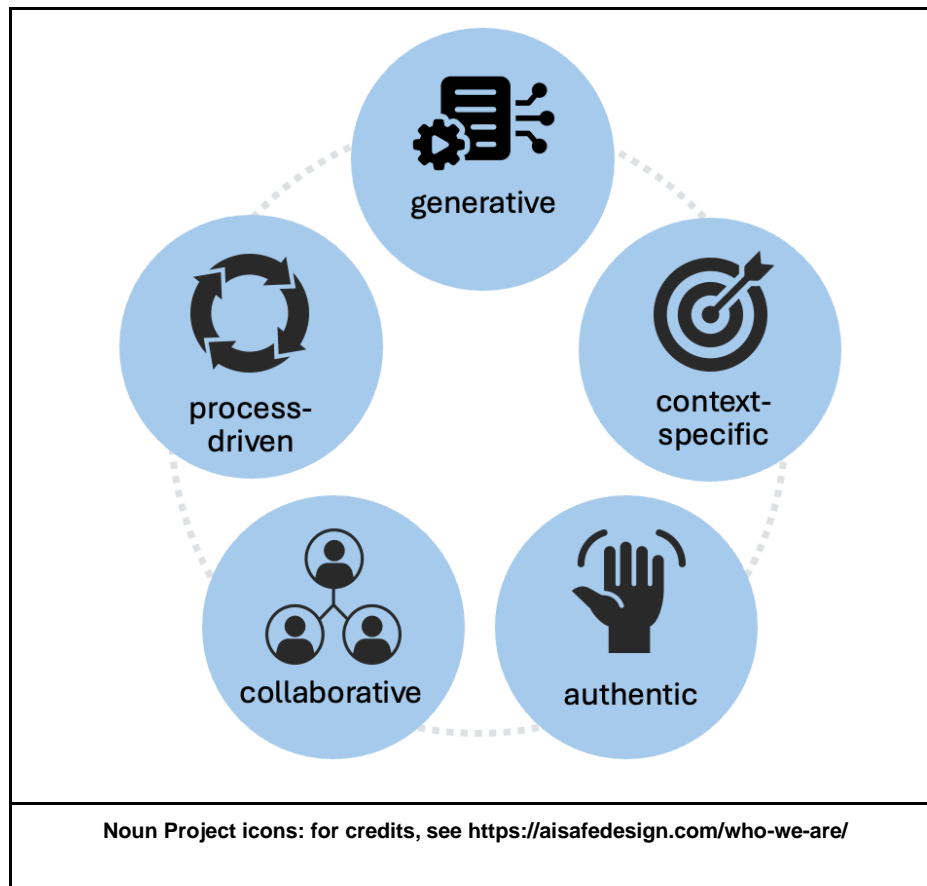
The problem

Artificial Intelligence may be used appropriately and *legitimately* by learners, but it may also be *misused* (preventing full and fair assessment of their individual learning).

How to deal with it

A *non-exam assessment* in (tertiary) vocational education and training* can be designed with the following questions in mind:

- Is the assessment *context-specific*?
- Is it *authentic*?
- Is it (partly) *collaborative*?
- Is it *process-driven*?
- Is it *generative*?

* as well as other areas of education

Our concepts	Is your assessment…	What we mean
	context-specific?	The context is clearly defined and relatively limited in its scope.
	authentic?	The work done is similar to what professionals often need to do.
	collaborative?	There is a joint effort requiring equal commitment from everyone.
	process-driven?	How work is done is as important as its end-product.
	generative?	New information, ideas, artefacts or designs are produced.

To make their assessment as AI safe as possible, a designer should be able to answer "yes" to (almost) all of the above.

Whether it is for an assessment task or a problem-based activity, the design will include multiple layers of protection against AI.

Is your assessment context-specific?		Why do this?
● Is it set in a specific context? ● Does it have specific objectives? ● Is it clearly limited to a specific field of (professional) activity? ● Can its focus be more local than national or international? ● Would learners have an active role in this local context? ● Could any other aspect be made more specific?		To identify suitable contexts about which little or no data, information or commentary is accessible to AI.
Suggestions for possible improvements:		**For example**
Identify the knowledge / skills required to complete the assessment in as much detail as you can. Consider who in the learner's locality uses this knowledge or skills, in what way and for what purpose. Decide to what extent the assessment may be adapted to suit local circumstances or relate to local needs. Think of different approaches or perspectives with which this work could be performed in a local context. Work out what evidence of learning might be provided through more specific contexts.		Completing a tender bid for a local project Conducting an opinion poll about the impact of a global issue on the learner's community Designing an app for a local business Performing an environmental impact assessment in the learners' local area Researching and creating a programme for a local event

Is your assessment authentic?	🖐	Why do this?
- Does it involve solving (a) problem(s) for a practical / professional purpose? - Do learners have to make decisions to solve the problem(s)? - Do they act from the standpoint of people who normally make such decisions? - Do they need to apply relevant knowledge and skills? - Do they need to have some initiative and judgement? - Are they required to justify their decisions?		To focus more on solving real-life problems in a practical manner than on displaying knowledge and skills in a way that AI can imitate.
Suggestions for possible improvements:		**For example**
Identify the knowledge / skills required to complete the assessment in as much detail as you can. Consider how this compares with the skills set required to deal with a similar real-life situation. Decide whether different roles might need to be allocated to learners and how authentic these roles might be. Create a reflection task in the context of your assessment where learners justify their work in speaking and/or writing. Work out what evidence of learning might be provided through more authentic work.		Applying for funding of a project relevant to the learners' studies Dealing with a simulated crisis situation in the learners' vocational field Developing a product or service that meets real and identified needs Participating in a performance review of the learner's own work Devising a repurposing plan for existing (institutional) premises

Is your assessment collaborative?		Why do this?
● Do learners work together (whether for part or the whole of the assessment)? ● Are key decisions made collectively in a group? ● Is the choice of roles, responsibilities, personal objectives also made collectively? ● Is there a system for monitoring / recording individual contributions to the group? ● Do learners participate in a review of their individual performance / task achievement? ● Is each learner required to give evidence of their own involvement / achievement(s)?		To introduce group decisions and accountability so as to hinder learners from passing off AI-generated work as their own.
Suggestions for possible improvements:		**For example**
Identify the knowledge / skills required to complete the assessment in as much detail as you can. Consider how much individual choice each learner is given and their scope for deciding what their assessment will be about. Decide if learners can plan the assessment work together in groups (whether or not it is then completed individually). Work out how both group work and individual work may be identified in this assessment. Work out what evidence of learning might be provided through collaborative work.		Creating a collaborative podcast, video or presentation Developing a new design in a team Costing and budgeting for a joint enterprise or venture Modelling a collaborative work-based activity Organising and managing a student-led event

Is your assessment process-driven?		Why do this?
● Do learners need to produce e.g. text, calculations, code, designs, images, speech, etc.? ● Can the production process be broken down into steps or stages? ● Can (at least some of) these be directly observed or recorded and documented? ● Is (at least part of) the assessment focused more on its process than its final product(s)? ● Does this process involve bringing different elements into a coherent whole? ● Could it be linked to other processes or products in the same course?		To integrate an appropriate and fully defined process into the assessment design so that any use of AI by learners may be transparent / open to scrutiny.
Suggestions for possible improvements:		**For example**
Identify the knowledge / skills required to complete the assessment in as much detail as you can. Establish a process in which such knowledge / skills will be needed by learners in the context of your assessment. Divide this process into clear and distinct steps or stages. Work out a strategy for observing, monitoring or tracking the work or individual contribution of learners within this process. Identify other products to be assessed that may either precede or follow this assessment.		Editing a publication or blog Participating in a student or institutional project Recruiting and training staff or participants for a mock-organisation or project Researching, planning and developing a website Setting up an organisation in a simulated context

Is your assessment generative?		Why do this?
● Is it built on information / ideas emerging from work that learners do for themselves? ● Is such content produced in the context of the assessment itself? ● Do learners make decisions on the basis of the content they have generated? ● Is the learner-generated content used in different parts of the assessment? ● Can the use made of this content be observed through the assessment process? ● Do learners account for how their information or ideas have been generated?		To include the use of information or ideas generated through the learners' own effort instead of relying on AI as a substitute for independent thinking.
Suggestions for possible improvements:		**For example**
Identify the knowledge / skills required to complete the assessment in as much detail as you can. Brainstorm information or ideas that might be used by learners and decide how much of this could be AI-generated. Analyse what use learners could make of this content and decide whether AI would be able to process it in this way. Map out this use of learner-generated content across your assessment as a whole. Formulate criteria to differentiate AI-generated content from learner-generated content in this assessment.		Conducting an experiment to gather data and analyse a real problem Designing a complex object, procedure or system for a real group of users Devising an awareness campaign for a student organisation using real data Investigating and reporting on a real situation using data generated by learners Interviewing participants to generate data for a project