Generative artificial intelligence (AI): SQA Accreditation guidance

An Assurance of Quality

Introduction

SQA Accreditation recognises that the rapid advance of technology has raised concerns about the use of generative artificial intelligence (AI), and that we need to clarify our position regarding AI.

We are working to develop our understanding of the concerns raised by AI, the potential risks it poses and also the potential opportunities and benefits it offers. We recognise that in such a fast moving environment regular review and revision of our views may be necessary.

This document should be taken as guidance only, and all awarding bodies and providers should carry out their own due diligence.

What is AI?

The following is a very brief summary of AI, including language learning models (LLMs) and machine learning (ML) as they are often referred to under the umbrella of AI.

Generally, AI is the creation of programmes which mimic the production of human intelligence. Generative AI can effectively produce new content (which may take the form of images, music or words) by analysing existing data.

LLMs, a subset of AI, are systems programmed to produce what appears to be high quality human produced text, which are trained on a vast amount of language input.

ML is also a subset of AI, and can learn autonomously from input data, improving its systems over time.

Some examples of Generative AI user interfaces are ChatGPT, Bard and Claude. New interfaces are created regularly for varying purposes; some produce artistic impressions; some are designed to be education aids. It is important to understand what AI is capable of to be aware of how people may be interacting with it, and how it may impact the assessment process or design of qualifications.

Legal and regulatory framework

There is currently a complicated patchwork of legal frameworks which impact the use of AI. What follows is not an exhaustive explanation and is only correct at the time of writing, as legal and regulatory frameworks are still emerging. The guidance produced by SQA Accreditation is based on these current frameworks. If an AI system is created or controlled by an individual or organisation outside of the UK, legislation from their country may also apply to the system and what it is allowed to do.

Any use of AI should be lawful, ethical and responsible, as set out in the following framework: [Generative AI framework for UK Government (publishing.service.gov.uk)](publishing.service.gov.uk). This is not legislation, but it is a good basis for establishing how AI should be used within the UK and has a principle-based approach.

At the time of writing the UK government has not finalised any legislation on AI. The European Union (EU) AI Act (2024) currently applies, which is the first legislation on AI. It is considered thorough, and outlines how to use AI in a safe, ethical and transparent manner. The act has taken a risk-based approach which aims to mitigate risks posed by AI, and to provide a regulatory framework for AI software. As a result, certain indiscriminate uses of AI are now banned, such as automatic categorisation of social users, AI that manipulates human behaviour, and deceptive AI that pretends to be human.

The EU AI Act (2024) is based on five principles: safety, transparency, fairness, accountability and contestability. The act focuses on an ethical framework, on what AI should not do, and seeks to limit the risks.

The General Data Protection Regulation (GDPR) also plays an important role in the regulation of AI. Any information input into an AI system can be considered data, and therefore GDPR legislation applies. GDPR dictates that:

♦ the use of data should be legal, fair and transparent.
♦ data should only be used for its intended purpose.
♦ only the necessary data should be collected ('data minimisation').
♦ data should be accurate.
♦ access to storage should be limited appropriately.
♦ data should be held securely and protected against unlawful processing ('integrity and confidentiality').
♦ organisations are accountable for their use of data.

Article 22 of GDPR states that people have the right not to be solely assessed by automated systems — there must be some human intervention.

This also ties in with the Human Rights, Act (1998), as human agency should not be undermined, and AI should not remove human judgement. Human rights also include the right to privacy and data protection.

Processes and assessments should not rely solely on AI technology, and consideration should be given to where human intervention is required. Users of AI should consider their own skill set and how to address any gaps to ensure they fully understand how AI operates.

A Data Protection Impact Assessment (DPIA) must be carried out in line with data protection legislation in relation to AI. This should be done before a new AI system is deployed. Completing a DPIA means there is accountability to the Information Commissioner's Office (ICO). This process will help identify the risks involved with AI software, and any necessary mitigation measures.

Risks to consider in developing AI systems

As Generative AI is a new technology in the early stages of development, it is important to remain aware of new developments to be able to mitigate risks. There may be a skills gap

which needs to be addressed, firstly in understanding how AI systems work, and secondly in understanding current legal and regulatory frameworks.

Risks to an organisation

The following list identifies some potential risks, which you may wish to consider.

- Security: After carrying out a DPIA you should know exactly where and how data is stored, though risks can only be mitigated, not eliminated.
- Distrust: Organisations may want to consider that not everyone trusts automated systems.
- Accessibility: AI systems should adhere to accessibility legislation. Can everyone access the systems?
- Equality: AI systems may respond differently to different people, perhaps depending on the language used, and this may result in discriminatory decisions.
- Accuracy: Information provided by AI systems should be checked for accuracy, and adjustments may be required.
- End users understanding: Consumers may not know how to use AI.
- Transparency: Can you, as an organisation, understand how the AI system arrived at a decision?
- Third party reliance: If a third party has created the AI system, do you have a full understanding of their role? If they are based outside the UK, are you aware of how they are governed regarding AI?
- Reliance on AI: Should the system fail, what is the contingency plan? Is there a skills gap?

Risks to the learner

Risks to the learner include, but are not limited to:

- Equality: AI systems may make socio-economic inequalities worse. Someone whose first language is not English may have a more formal style of writing, and plagiarism-detecting software may incorrectly flag this as possibly generated by AI.
- Validity of assessment: Exam-style assessments may be regarded as more valid than open book assessments, as there is less chance of using AI-generated work to assist or cheat on an assessment.
- Distrust: AI may create a division between learners and educators or assessors.
- Industries becoming obsolete: some qualifications may subsequently become obsolete.
- Potential impact on soft skills and metaskills: Learners may become over-reliant on AI and therefore lose, or not have the opportunity to learn, certain skills.

Next steps

SQA Accreditation will engage in continued discussion and feedback with its stakeholders on generative AI. We will shortly be conducting a survey of initial views, and we would be

grateful for your response. If you have any questions or concerns which are not addressed above, please contact info.accreditation@sqa.org.uk. After we analyse the survey results, we will hold a forum on the topic of AI to follow up any points raised by the survey and to discuss any recent developments.