

**AI tools for managing apprenticeships:
understanding the regulatory landscape**



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Navigating AI regulation in apprenticeships

Artificial intelligence (AI) has the potential to transform the landscape of apprenticeship provision in the UK, driving efficiency, personalisation, and enhanced learner outcomes. It will be important for providers to harness AI responsibly, in alignment with government strategy and sector-wide best practices.

The UK government's strategy document, *A Pro-innovation Approach to AI Regulation*, sets the foundation for responsible AI adoption. It prioritises innovation while ensuring AI applications remain ethical, transparent, and aligned with public interest.

Balancing ethical and regulatory concerns with AI's potential

AI offers apprenticeship providers new avenues for streamlining administrative tasks, enhancing learner support, and personalising training pathways. These technologies hold immense promise, from AI-driven chatbots that assist with learner queries to objective progress monitoring and automation of routine administration. However, their use must be guided by a strong ethical framework and compliance with emerging regulatory requirements.



The first step is to have a full understanding of the types of AI available to apprenticeship providers and their application in different parts of the workflow. Jisc has put together a very useful [toolkit](#) which includes case studies of successful implementations of AI in education and a community forum.



The next step when exploring AI integration is to ask these essential questions for responsible, effective AI adoption:



Does this align with our organisation's goals?

AI should support strategic priorities, such as improving retention, enhancing assessments, or strengthening learner support.



Does the tool align with compliance and ethical standards?

Regulatory guidance and ethical standards can help with the selection of the right tools.



Does AI fit our purpose and culture?

It should complement existing teaching approaches and organisational values rather than disrupt them.



Are we ready for implementation?

Readiness includes technical capability, staff training, provider support and clear policies on AI use.



What challenges does AI present?

Providers must consider ethical risks, including data privacy, bias, and algorithmic transparency.

By learning more about the applications of AI and finding answers to those essential questions, apprenticeship providers can mitigate their risk and ensure AI enhances their strategic goals.



Ofsted's perspective



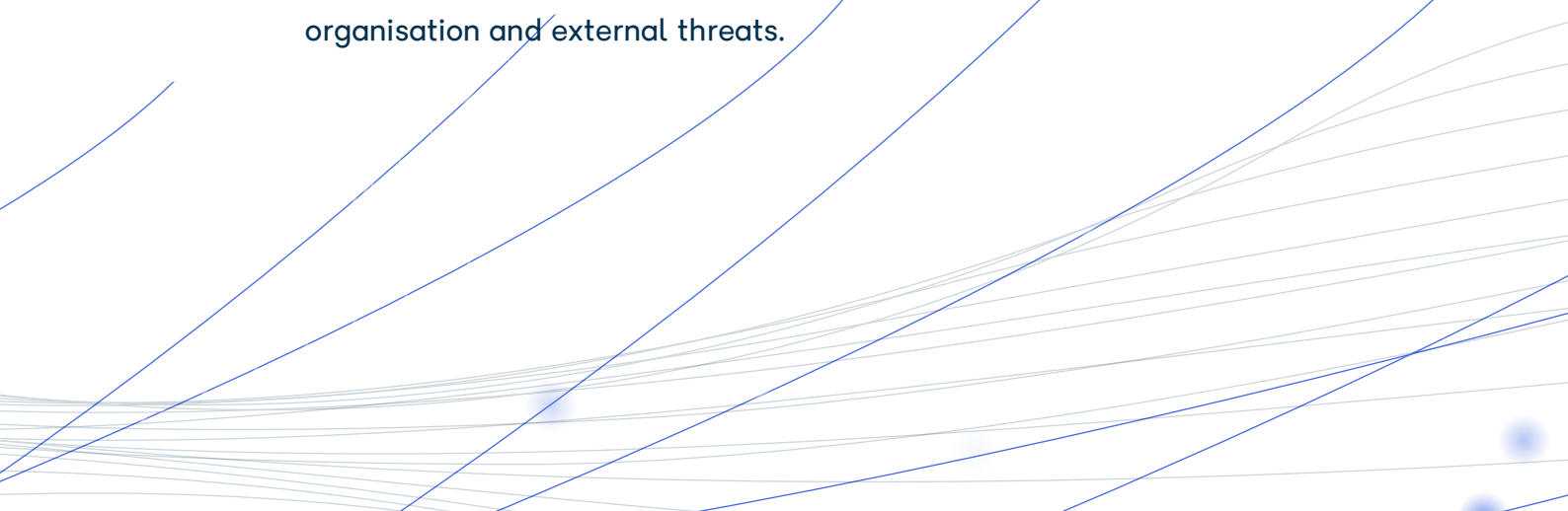
Ofsted has [published guidance](#) on how it considers AI during inspection and regulation. Ofsted does not look at AI as a stand-alone part of inspections and does not directly evaluate AI tools. Instead, inspectors may consider the impact AI use has on the outcomes and experiences of children and learners, where it is relevant to wider inspection and regulatory decisions. Providers are not required to use AI, or to use it in a certain way.



Ofsted regulatory principle 1: Safety, security and robustness

Ofsted's guidance indicates providers should be prepared to explain how AI solutions are secure and safe for users and protect users' data. They need to assure inspectors they can identify and rectify bias or error.

When looking at technology solutions, the key areas to focus on to meet the expectations of this principle are:

- 1 Data security measures:** Ensure that personal information remains confidential and secure from unauthorised access within the organisation and external threats.
 - 2 Bias detection and correction:** Algorithms designed to monitor and identify potential biases in AI-driven processes ensure timely interventions that deliver fair and equitable outcomes for all users.
 - 3 Continuous monitoring and updates:** A proactive approach ensures that the platform remains reliable, accurate, and aligned with the latest standards in AI safety and ethics.
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Ofsted regulatory principle 2: Appropriate transparency and explainability

Providers are expected to be transparent about their use of AI and make sure they understand the suggestions it makes.

To comply with this principle, there are some essential concepts to look out for:

1 **Human-in-the-loop approach:**

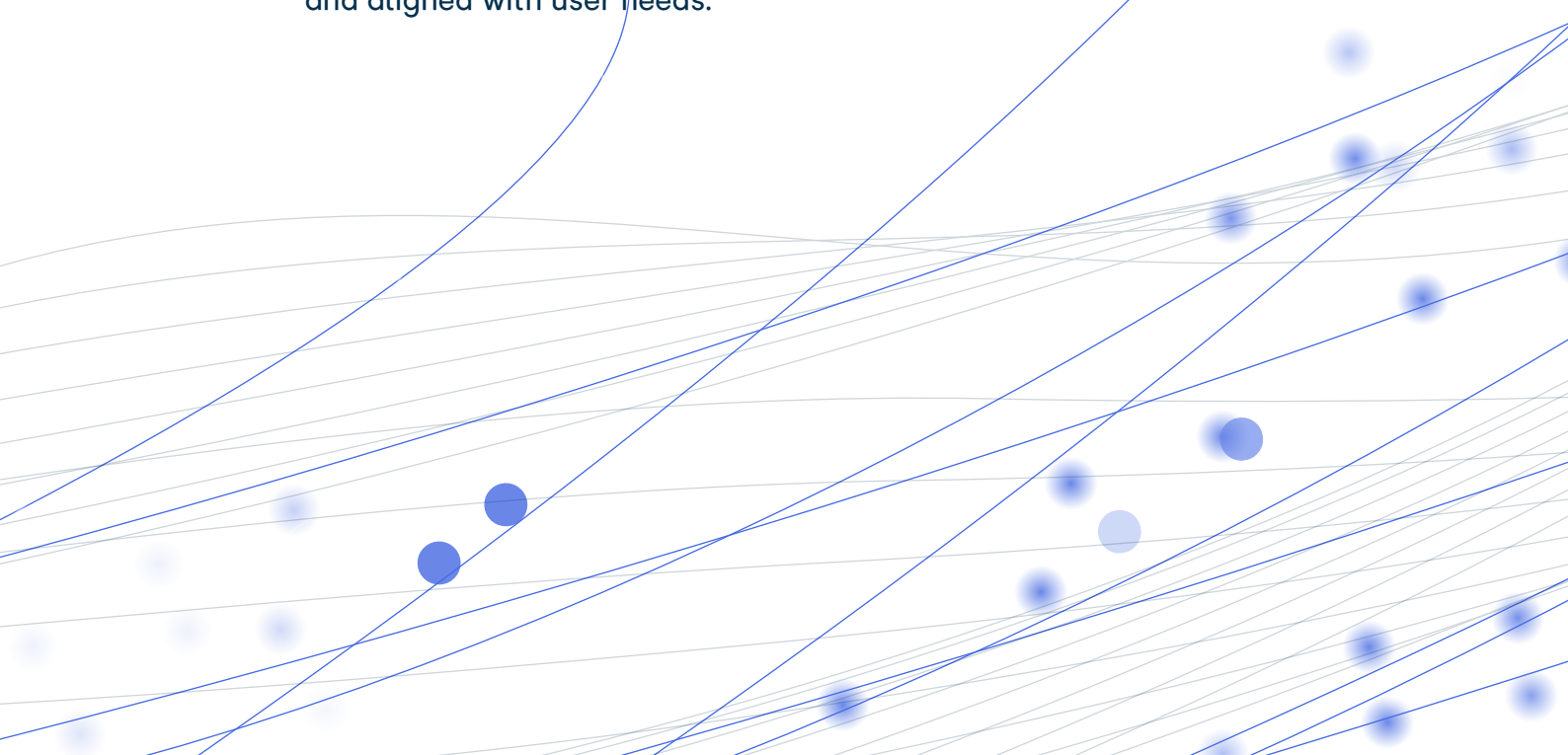
This allows tutors to oversee and adjust AI-generated suggestions and ensures that AI outputs are transparent and can be explained, as human educators remain integral to the decision-making process.

2 **User feedback mechanisms:**

A feedback loop enhances the transparency of AI operations and allows for continuous improvement, ensuring that AI behaviour remains explainable and aligned with user needs.

3 **Classification AI:**

Classification approaches can support more consistent marking and clearer audit trails when they are designed around explicit criteria and controlled inputs. However, explainability is not automatic: systems still need strong documentation of data sources, how outputs are generated, and how decisions can be reviewed. For some AI approaches (including deep learning and LLM-based systems), explainability can be difficult and “explainable AI” techniques can sometimes be misleading, so transparency should be evidenced rather than assumed.





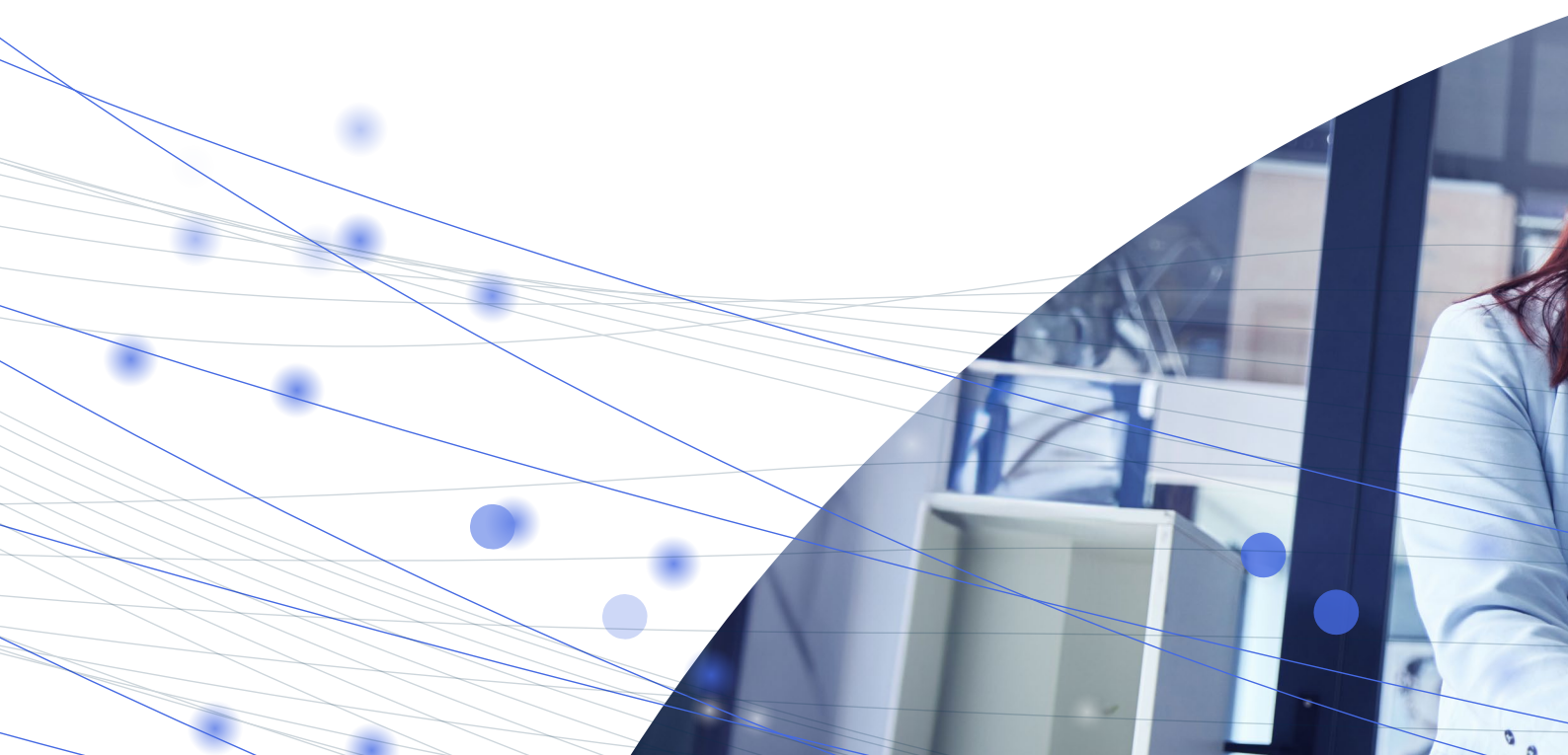
Ofsted regulatory principle 3: Fairness

Ofsted's guidance indicates providers should be prepared to explain how and why their AI use is ethically appropriate. In particular, Ofsted expect to consider bias relating to small groups and protected characteristics before using AI, monitor bias closely and correct problems where appropriate.

Fairness is essential because the right AI tools, employed in the right way, can help to build trust between the tutor and the learner. To achieve this, an ethical approach must be embedded into the development.

- 1 Ethical AI development:**
This means considering any potential bias relating to small groups and protected characteristics. If the solution has been developed ethically, the risk of any possible bias can be mitigated and monitored.

- 2 Human oversight in AI processes:**
The human-in-the-loop approach ensures that while AI handles repetitive tasks, human tutors oversee and validate AI outputs, maintaining fairness and accuracy in assessments.
- 3 Continuous monitoring and feedback:** AI tools should feature user feedback mechanisms, allowing tutors and learners to report any discrepancies or biases observed in AI operations.



Ofsted regulatory principle 4: Accountability and governance

Ofsted's guidance indicates providers should be prepared to explain staff roles and responsibilities in relation to the monitoring, evaluation, maintenance and use of AI.

Much of this requirement should fall within strategy and policies, but some aspects of the technology used can facilitate strong governance of AI within the organisation. The human-in-the-loop approach is one example, but other elements must be considered.

- 1 Clear user guidance:**
Administrators, tutors and learners must understand their roles and responsibilities when using AI tools to promote effective governance.
- 2 Audit trails:**
Students are likely to turn to AI for support, and providing the tools within a monitored system means a tutor can see if a learner has taken an answer wholesale from an AI response. This also provides valuable information – for example, if all the learners in a cohort ask similar questions about a particular topic, it might indicate the need for more learning resources.

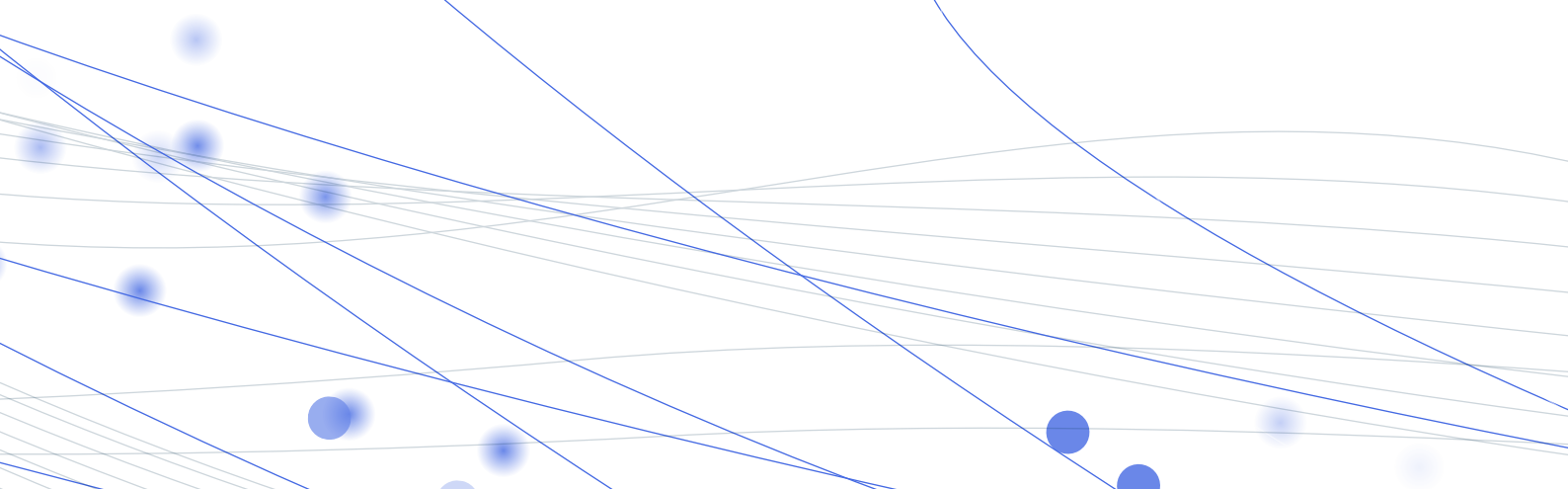




Ofsted regulatory principle 5: Contestability and redress

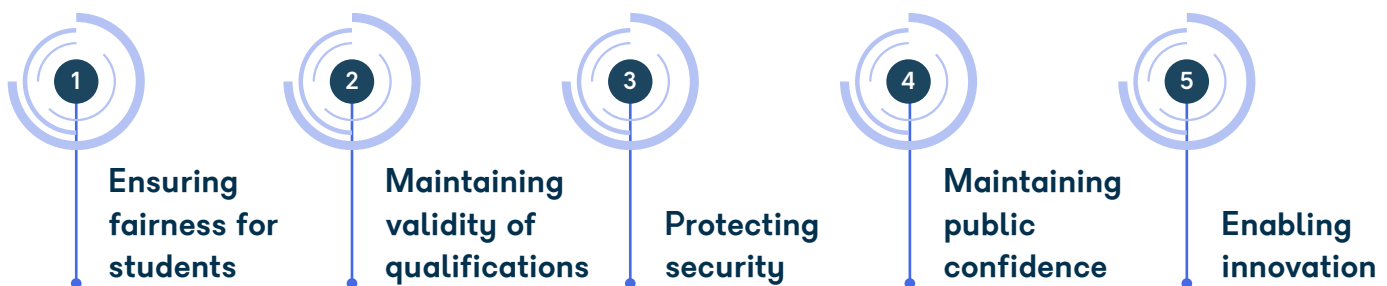
Ofsted's guidance indicates providers should be prepared to explain how staff are empowered to correct and overrule AI suggestions – decisions should be made by the user of AI, not the technology.

Once again, this principle highlights the vital role of tutors. The ability to correct AI suggestions and maintain human oversight must be built into the processes.

- 1 Human-in-the-loop approach:**
As with the principle of transparency, AI has a supporting role. However, tutors remain integral to the decision-making process and must be able to correct or overrule AI outputs as necessary.
 - 2 User feedback mechanisms:**
Allowing users to flag responses that may not meet expectations enhances the transparency of AI operations and allows for continuous improvement.
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The role and view of Ofqual

Ofqual's approach to using AI aligns very closely with the Ofsted strategy, with the following key principles.



While looking to provide principles that guide providers, it is very clear that AI should never be the sole marker of work. Ofqual has also clarified that the use of AI as a sole form of remote invigilator for student work is unlikely to be compliant with its regulations, noting the importance of human involvement to secure authenticity and prevent/detect malpractice, and that it will keep this position under review.

This aligns closely with the stated principles and means that using AI as the sole marker of a learner's work does not comply with Ofqual's General Conditions of Recognition (GCRs). Ofqual's position reflects both the need for human judgement in marking decisions and a precautionary view of AI risks (including bias, inaccuracy and lack of transparency). Ofqual also signals that in high-stakes marking, strong validity evidence is essential and that agreement with human marks alone is not sufficient to assure validity; construct representation, fairness and consequences must also be considered.

It is important to note that Ofqual also aims to enable innovation. This means that providers shouldn't rule out AI entirely; there is significant potential to reduce workloads, improve learner engagement and even improve the quality and transparency of marking.

Ofqual's more recent thinking on AI use in marking also highlights the importance of considering consequences beyond accuracy and efficiency, including the environmental impact of AI and data security and candidate privacy, particularly where student work could be used for AI training or processed by third-party models.

The key is to maintain an ethical framework that highlights tutors' true value and empowers apprentices to take control of their own learning. In short, this is an innovation that keeps the tutor and learner at the heart of the process and that has the potential to transform the delivery of apprenticeships.

The human-in-the-loop approach to AI in apprenticeship learning

The Ofsted principles recognise that while AI can enhance efficiency, automate tasks, and improve assessment accuracy in learning, it cannot replace human judgment, adaptability, and empathy, which are essential components of education. Where AI informs consequential decisions, human-in-the-loop (HITL) should be defined precisely in practice (what is reviewed, by whom, at what thresholds, and with what audit trail), rather than treated as a label. This HITL approach ensures that AI supports, rather than replaces, educators, maintaining fairness, personalisation, and quality in apprenticeship training.



Enhancing AI with human oversight

In the HITL model, AI automates repetitive tasks like administrative work, but human educators oversee critical decision-making. For example, classification AI can evaluate assessments, but tutors review borderline cases to ensure fair grading. This blend of automation and human expertise minimises AI errors while maintaining a personal touch in learning.



Personalised learning and mentorship

AI can analyse apprentice performance data, identifying strengths and weaknesses. However, only a human mentor can provide emotional support, motivation, and personalised coaching. By automating routine assessments, AI frees tutors to spend more time on one-to-one mentoring, helping apprentices develop practical skills, confidence, and problem-solving abilities crucial for workplace success.



Fair and adaptive assessments

A HITL approach ensures AI-driven assessments remain fair and adaptive. While AI efficiently marks structured responses, human evaluators ensure subjective elements – like creativity, critical thinking, and practical application – are assessed correctly. This approach prevents AI limitations, such as misunderstanding nuanced answers or reinforcing biases from training data, from negatively impacting apprentices.



Elevating human expertise

A human-in-the-loop approach maximises AI's potential in apprenticeship learning by balancing automation with human expertise. By combining AI-driven efficiency with human judgment, empathy, and mentorship, this model ensures fair, personalised, and high-quality learning experiences, preparing apprentices for success in both education and the workplace.



Ethical use of AI in apprenticeship learning

HITL ensures fairness by allowing educators to intervene in AI-driven decisions, preventing biases related to gender, background, or learning styles. Additionally, apprentices using AI for learning (e.g., generating practice questions or summarising content) should not face penalties. Instead, AI should be integrated to enhance education while humans ensure responsible usage.



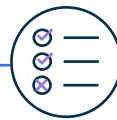
A focus on eliminating bias

Eliminating bias is a key tenet of regulatory principles, and it's important because some AI tools can increase that risk if not applied thoughtfully. Generative AI can be prone to bias, for example, and a small change in the text can have a disproportionate impact on the AI's response. However, when designed ethically, AI-driven support fosters inclusivity, providing all apprentices with equal opportunities for success.



Automation for more one-to-one support

One of AI's most significant advantages is automating repetitive tasks, such as reporting, reviews and administrative work, allowing tutors to spend more time with learners. By reducing manual workload, AI enables educators to focus on more nuanced, individualised support, addressing specific learning needs and mentoring students more effectively. This personalised approach helps to eliminate any unintended bias.



Classification AI for fair and objective marking

Bias in human grading – whether conscious or unconscious – can impact student outcomes. Classification AI helps eliminate this by applying consistent and objective criteria in assessments. Advanced AI tools can assess structured and semi-structured responses, ensuring every apprentice is evaluated fairly. By standardising marking, AI can reduce tutor discrepancies and promote a more transparent grading system.



AI technology has the potential to revolutionise apprenticeship delivery, and I'm excited about its future. I look forward to continuing my journey with Aptem as an early adopter.

Madeleine Robinson, Head of Operations and Transformation, Pareto



Ensuring fairness for students using AI in learning

As AI becomes an integral part of education, it is essential to eliminate bias against those who use AI tools for research, practice, or skill development. Providers should recognise AI as an evolving educational tool. Proper guidelines can ensure AI use aligns with learning objectives, maintaining academic integrity while promoting innovation. Offering AI solutions within the apprenticeship management system can provide a clear audit trail, encourage transparency, and allow tutors to see how successfully each learner has applied any knowledge gained from AI.



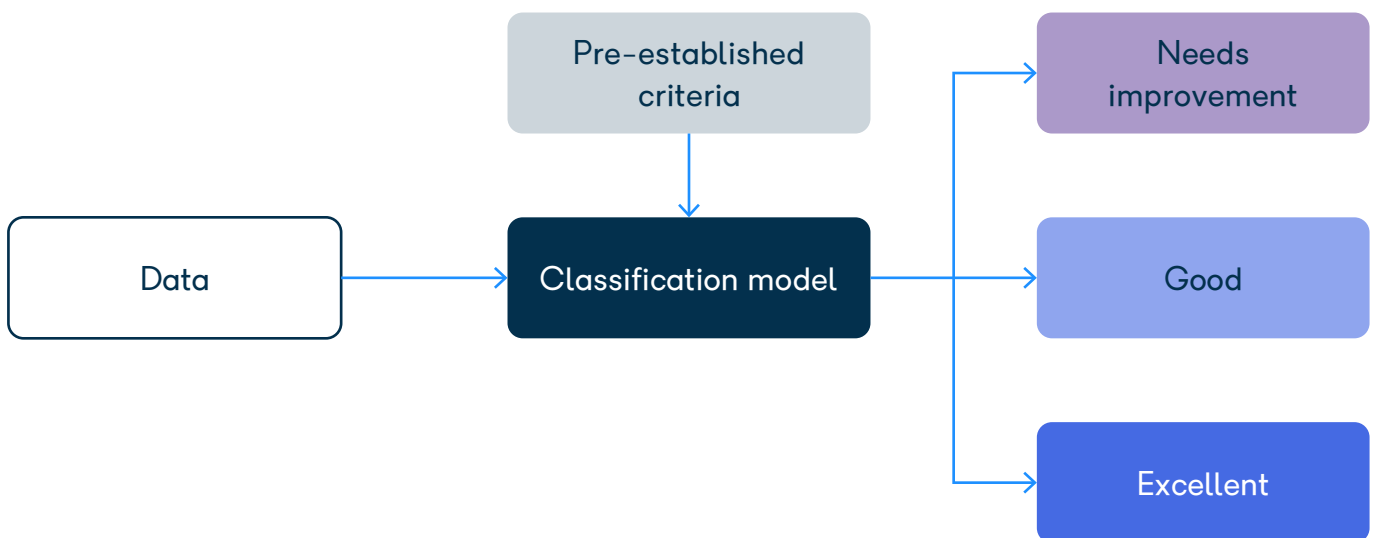
Graide: The importance of classification AI in supporting efficient, high-quality marking

Classification AI has a key role in ensuring the successful adoption of AI within apprenticeships because it adheres to the regulatory principles and strategic aims for AI use in education. While generative AI creates new content that may be inaccurate or unfair, classification models categorise inputs into predefined labels based on structured data. This functionality makes classification AI more consistent, transparent, and less prone to bias than generative AI when used for grading.

The black box problem and the role of classification AI

Generative AI models lack explainability. While tutors can articulate their reasoning, these AI models operate as “black boxes” that produce outputs without insight into how or why they were created. Any reasoning is buried within the model’s complex neural network, and it is not explainable if it is impossible to trace the logic used to arrive at a grade or any feedback. This lack of transparency is why Large Language Models (LLMs) and Generative AI are not supportive marking tools and highlights the value of classification AI as a viable alternative.

Classification AI models differ significantly from generative AI models in their approach to handling data. These models provide clear decision pathways and are easier to explain. Unlike generative AI, which generates new content by predicting word sequences based on vast training data, classification AI models are designed to sort data into predefined categories. In the context of grading, this could mean classifying an essay as “Excellent,” “Good,” or “Needs Improvement” or assigning specific scores based on how well the student’s response matches pre-established criteria.



Graide products use classification AI because it delivers consistency and explainability and helps to control bias.

- 1**

Objective questions can be graded automatically based on initial tutor inputs indicating the correct answer. The AI learns the parameters for correct and incorrect answers and suggests the grade and any relevant feedback to the learner.
- 2**

Classification AI can recognise patterns in student errors. This helps deliver relevant feedback and is also a valuable tool that may suggest a gap in the learning materials or a need for more personal one-to-one discussions on particular topics.
- 3**

Reducing human bias helps ensure consistent grading criteria. Feedback suggestions act as a prompt that coaches tutors to grade consistently and raises standards in marking across the cohort of learners.
- 4**

Classification AI is fast and scalable. It takes between 5 and 10 assignments for the AI to accurately suggest grades and feedback, saving tutors time and raising quality standards for marking across the organisation.



AI can deliver significant benefits, balancing efficiency and fairness for learners. The potential of these tools is revolutionary for institutions planning to adopt AI to improve efficiency and reduce the administrative burden. However, it is essential to distinguish between automation for simple tasks and a more sophisticated solution for an area as crucial as marking.

Selecting the right AI tool for the job

An important guideline to consider is choosing the right tool for the job. Applying the right technology is critical and must align with ethical, safety and regulatory guidelines. This perspective is part of the EU framework, which may influence any future UK regulations.

Automation handles repetitive, rule-based tasks, reducing administrative workload. It can streamline grading for objective assessments, track apprentice progress, schedule training sessions, and generate standardised feedback. By automating these processes, tutors can focus more on mentoring and personalised support.

Large Language Models (LLMs) and generative AI can generate immediate responses for learners. When aligned to a specific apprenticeship standard, such a tool can be used by learners to receive answers to quick queries and gain clarification 24/7. As well as reducing the number of routine queries that tutors receive, the convenience of an always-on resource can be valuable when it is appropriately scoped, monitored, and supported by safeguards (for example, clear limitations, human escalation routes, and oversight).

One of the hottest topics relating to AI in education is marking. The marking quality is so important to retain learner engagement and trust in the value of the qualification. Ofqual has made clear that using AI as the sole marker of students' work does not

comply with its regulations, and stresses the importance of meaningful human judgement and oversight in high-stakes marking. Ofsted does not directly evaluate AI tools and does not inspect AI use as a stand-alone element, but may consider its impact on outcomes and experiences where relevant.

Still, some tools can accelerate the marking process and improve marking quality across an organisation. Assistive or augmentative AI enhances human decision-making rather than replacing it. It can help tutors by providing insights, generating personalised feedback, and identifying learning gaps. AI-powered tools can recommend study materials, flag struggling apprentices for intervention, and assist in grading subjective responses while leaving final decisions to tutors.

In short, automation improves efficiency, and assistive AI enhances decision-making. Together, they create a balanced system in which AI optimises administrative tasks while tutors provide critical oversight and mentorship, ensuring apprentices receive both structured and personalised learning experiences.

AI in practice

Aptem Enhance is a suite of AI-powered features designed for apprenticeship providers





Checkpoint

Checkpoint uses an LLM with generative AI to deliver objective progress monitoring aligned to the learner's comprehension of KSBs.

- ✓ Improves the accuracy of financial forecasts.
- ✓ Encourages apprentices to own their learning.
- ✓ Spots trends and improve teaching quality.
- ✓ Helps tutors best focus their efforts.



Virtual assistant

Virtual assistant uses an LLM with generative AI to reduce the administrative burden by providing learners with vital information mapped to the apprenticeship standard 24/7.

- ✓ Capitalises on learner momentum, regardless of provider bandwidth or availability.
- ✓ Provides tutor oversight with transcripts of all interactions.
- ✓ Saves tutors time on routine queries.
- ✓ Teaches learners to use AI in a professional context.

Checkpoint and virtual assistant are now integrated, meaning that learners can follow up immediately after completing a checkpoint by asking the virtual assistant for more information on incorrect answers.

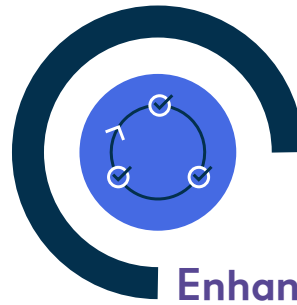
- ✓ Empowers learners to take the initiative with their development.
- ✓ Provides tutors with valuable insight and oversight of learning practices.
- ✓ Supports more accurate forecasting of planned end data and learner revenue.



Marking aid and feedback assistant

These tools use classification AI to support tutors in the delivery of timely, high-quality feedback.

- ✔ Supports consistent, explainable feedback.
- ✔ Increases learner engagement.
- ✔ Elevates tutor impact.
- ✔ Delivers more efficient, faster marking.



Enhanced reviews

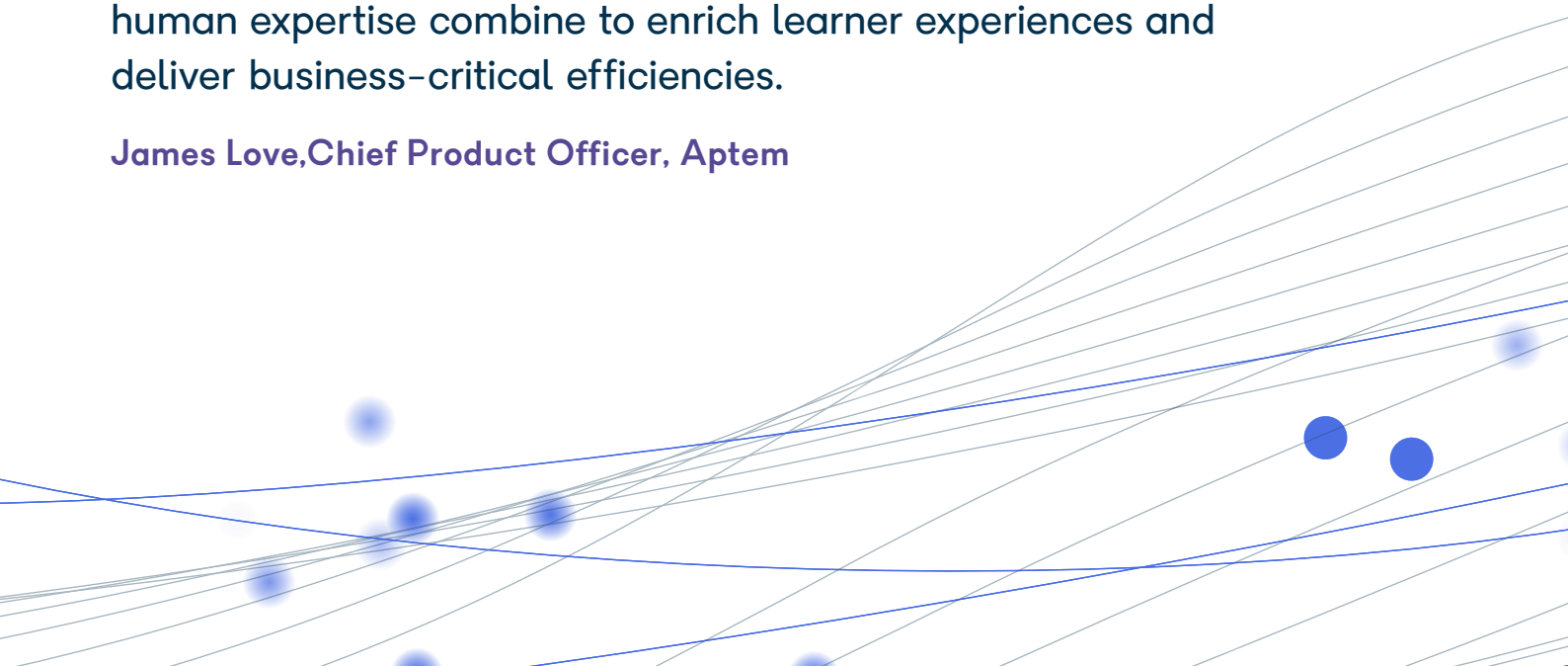
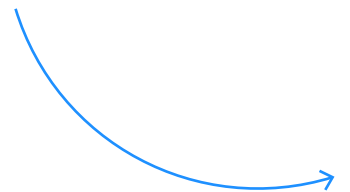
A suite of features designed to reduce the administrative burden of reviews from preparation to reporting, objective setting and follow up.

- ✔ Streamlines review processes for timely reviews.
- ✔ Supports accurate record keeping.
- ✔ Removes the distraction of note-taking to focus on meaningful conversations.



Aptem Enhance aims to redefine regulated vocational training, paving the way for a future where technology and human expertise combine to enrich learner experiences and deliver business-critical efficiencies.

James Love, Chief Product Officer, Aptem



Aptem Enhance complements valuable human expertise with a series of AI-powered tools.

- ✓ More focused teaching time for tutors.
- ✓ Higher quality, more responsive coaching for learners.
- ✓ Increased engagement and learner retention for employers.
- ✓ Improved chances of successful apprenticeship completion.

Some Aptem Enhance features will have an early adopter programme to gather feedback from a select group of users before the general release. If you are already an Aptem customer and want to become an early adopter for Aptem, please speak to your Customer Success Manager.

If you are an organisation that helps deliver further education and employment programmes and would like to transform the way you deliver in a cost-effective, efficient and compliant way, get in touch:

Book a demo

enquiries@aptem.co.uk

020 3758 8540

www.aptem.co.uk/enhance

Aptem is one of the fastest-growing SaaS software companies to manage vocational training, skills and employability programmes.

In addition to Aptem Apprentice, we offer a range of other solutions to support the development of vocational skills and re-employment.

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- ✓ **Aptem Skills**, our award-winning end-to-end delivery platform that enables fully compliant ASF course delivery and accelerates re-employment.
- ✓ **Aptem Assess**, a cognitive assessment tool that enables you to seamlessly identify and respond to learning needs.

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