



Putting the AI in Training

A working paper





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A warning

This working paper has been written entirely by humans. As such, it only incorporates the knowledge and ideas we have accumulated so far.

We are obliged to remind you that things in the AI world are changing fast. We believe the applications of AI will be beneficial and disruptive to traditional approaches in equal measure. How is not exactly clear.

Most importantly while some things will change – other things never change. Identifying what will not change is as important as preparing for the changes.

There are useful patterns and powerful AI products emerging. This report aims to distil what we know and believe will assist with the successful application of AI in our speciality area - corporate training.

Perhaps the biggest issue for AI, at the moment, is general confusion and ignorance amongst its potential audience.

We aim to:

1. look at definitions and products that help us understand how AI impacts training.
2. examine the processes, security and risks associated with AI.

A recent Multiverse report points to a skills gap as a significant factor holding back progress in AI implementation. Less than half (46 per cent) of organisations surveyed offer frequent and advanced AI upskilling opportunities to employees, and only 37 per cent believe their AI maturity is ahead of their competitors.

AI and IA make a product range

There are 6 obvious applications of AI to support training.

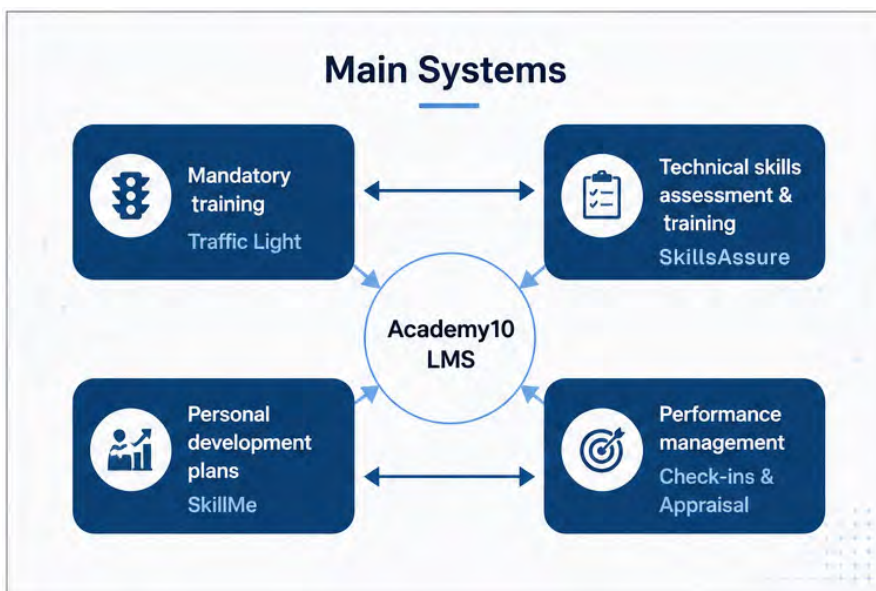
1. Content production
2. Individualisation of learning plans
3. Marking/scoring tests
4. Skills analysis
5. Workflow search/solutions
6. Individualised rendition including translation

But in a training environment AI does not do it all. In fact, not everything labelled as AI is AI. Some of it is simply intelligent algorithms (IA as we like to call it).

This matters because it is the merging of these IA with AI capability that defines how the training products will work for you.

Large Language Models (LLM) are a type of AI. By linking LLM to course authoring software (IA) courses can be created in seconds (saving thousands of pounds on course creation). AI creates the content and delivers it, according to instructions, in a way recognised by the Authoring tool. The Authoring tool is an IA, and is used for all other issues such as delivery, reporting and management.

The SkillGate product range that uses AI looks like this:



Other products :

1. Classroom
2. SkillsAudit
3. SmartAuthor
4. SurveySoft
5. 360 Feedback
6. SuccessTargets
7. MyMentor
8. Training Requests
9. Infinity Library

AI is applied to these products in different ways as we shall see.

What is training and performance management?

In this working paper we focus on what ‘putting the AI in training’ means; the risks, rewards and technicalities. To do this we need to start by agreeing a definition of what ‘training’ is (and is not).

Training

Traditionally, training is essentially about ‘embedding’ knowledge and skills in ‘selected’ individuals so that they know how to behave in anticipated future situations. (What to do when the fire alarm goes off. How to deal with an angry customer when they call, etc). Note the important words ‘embedding’ and ‘selected’.

‘Embedding’ traditionally means ensuring an individual has the skills and knowledge in their heads. In most cases AI does not change this requirement. However, in the AI world it can also mean knowledge or skill embedded in a machine that can be called on when needed.

For clarity in this document, we define the former as ‘training’ and the latter as ‘intelligent search’. A common application of ‘intelligent search’ as an educational tool is online coaching. It can be very powerful. Millions of people use it daily. But search as an educational tool suffers from a major problem. Intelligent search can only answer the questions it is asked. It does not know what the questions should be.

Take a simple example. A man offers to buy a garage for his car for £30,000 cash for a quick sale from a London estate agent. The estate agent asks AI what the money laundering limit on cash payments is. Answer €10,000 (or equivalent). Search has provided the solution but only if the estate agent knows there are rules in the first place.

Training as we define it, means you start with what the individual needs to know and what they do not know. For that you need subject matter experts designing and delivering ‘training’ interventions (courses, coaching etc).

Performance management

The second important word is ‘selected’. How do we know who needs to know what?

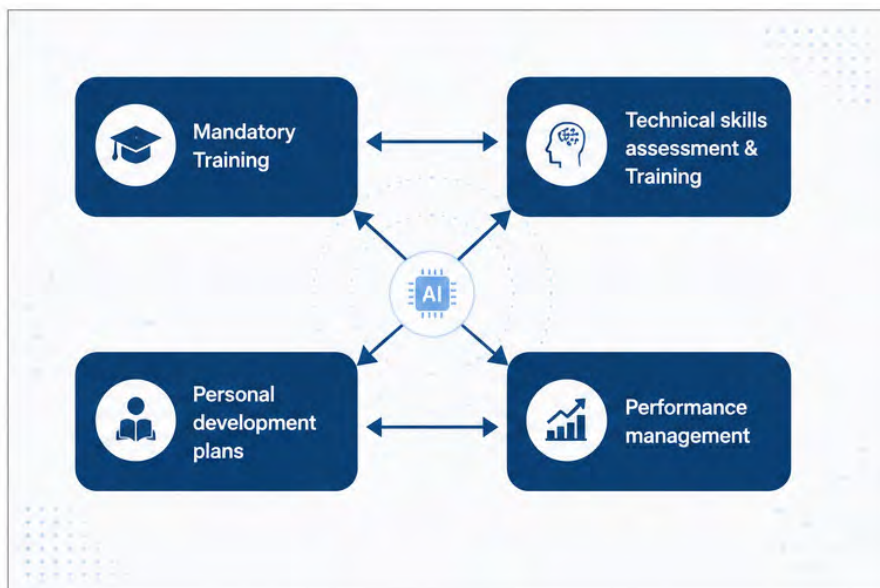
Performance management is closely integrated with training for two critical reasons. It delivers:

1. ways to select individuals that will benefit from training.
2. ways to verify that training is producing desired results.

In the AI world, where training is highly individualised, quality performance management is even more important. Systems to measure personal skills and skills improvements provide the metrics by which AI use and verification of improvements will be measured.

Applying AI to training & performance management

This report is focused on how we see AI in use in practice with our customers. However, for context, we repeat and summarise our current training focus areas.



We have developed products that specifically incorporate AI. It is all fairly new, but it works amazingly well. And there are countless opportunities to make AI work better.

Below we explain where we have added ♦ AI dimensions into the core SkillGate product ranges:

Mandatory Training - Traffic Light

Traffic Light offers a sophisticated diary system for allocating mandatory courses. It is now supported by:

- ♦ **SmartAuthor AI** - This is an AI content generator that creates courses in seconds. All courses are created in SmartAuthor allowing manual editing of learning objects and ensuring AI courses seamlessly integrate with other content.
- ♦ **Image Generator AI** – to speed up content creation, the SmartAuthor AI adds simple placeholders where images are needed. The Image Generator allows the Author to be much more specific about the type of images they want to add.

Technical assessment & training - SkillsAssure

SkillsAssure is an advanced version of Traffic Light. It facilitates technical skills assessment, compliance measurement and training at a job skills level, allowing coaches or line managers to assess individual skill levels in relevant and specific subjects. In addition to assessment, it links to relevant training options.

- ✦ **Doc2Train AI** - allows in-house documents to be turned into short online training interventions in support of coaching activity.
- ✦ **Answer Analysis AI** - this system allows managers to check individual skills by sending them real-time questions and then asking AI to assess the answers.

Personal development plans - SkillMe

SkillMe offers a unique approach to individualised development learning plans. Based on skills profiling (auto and manual) SkillMe offers relevant daily micro-lessons with links to further certificated options.

- ✦ **Infinity Scroll AI** - uses the AI real-time content creation option to allow learners to delve deeper into any subject they want, when they want.

Performance management - Perform

The performance management system integrates informal 'Check-ins' and formal managed Annual Development Review (Appraisal). Both offer opportunities for text based one-to-one meeting input.

- ✦ **SkillAnalysis AI** - interprets text-based input and suggests skills profiling that is fed into the SkillMe personal learning plan environment.

A note on individualisation

Users can select their own language preference for the website.

- ✦ **Elfsight Translator Widget** - which utilises Google Translate API.

The difference between AI and traditional courses model

Let's look in more detail at one of the most popular uses of AI LLM – online course (elearning) generation. Specifically, we look at how AI generated courses are different from traditional courses. Analysis in detail helps us to understand where AI helps and where it may cause issues. The traditional training course is built around the 3 Rs:

Relevance - Rendition – Reward

The learner picks a course they hope matches their need (Relevance). The delivery of the course (Rendition) will be via one of a small number of alternative formats; classroom, webinar, elearning etc. The learner will complete the course if they consider the return on their effort is high enough (Reward).

Relevance

AI can substantially increase the speed at which relevant content can be created and delivered.

Rendition

AI can speedily individualise rendition or delivery techniques.

Reward

The issue with reward is illustrated through the concept of certification. In the same way that an isobar is a line of equal pressure, a certificate is a line of equal knowledge. If you passed the same test as everyone else, it is reasonable to assume you have the same level of knowledge. You can be rewarded with a certificate.

How do you draw a line of equal skill if learners are learning according to their own personal learning plans? Without the discipline of a certificate, reward has no public measure.

There are two other elements that tend to be taken for granted in traditional courses. They become emphasised in the AI environment.

Validation - Verification

Validation

Traditional courses are typically written by a subject matter expert (SME). With AI LLM generated content the sources are unclear – they require additional validation. AI cannot easily decide what the learner needs to know in the same way a SME might.

Verification

In traditional systems, success is tested typically by Q&A often by tutor/trainee interaction or online test.

AI does not typically interact with the learner in a way that is effective for assessing whether the learner has learnt what was needed. The more effective the individualisation created by AI the harder verification becomes.

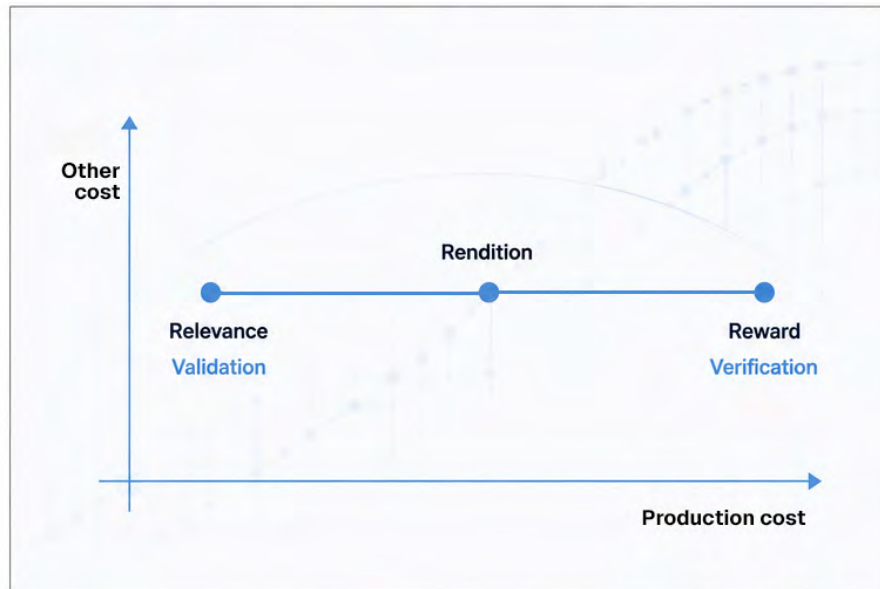
In addition, AI agents can now take the tests for learners.

We believe more robust systems of verification and assessment are required. Rewards are based on verification.

AI generated courses offer significant cost reduction advantages for Relevance and Rendition.

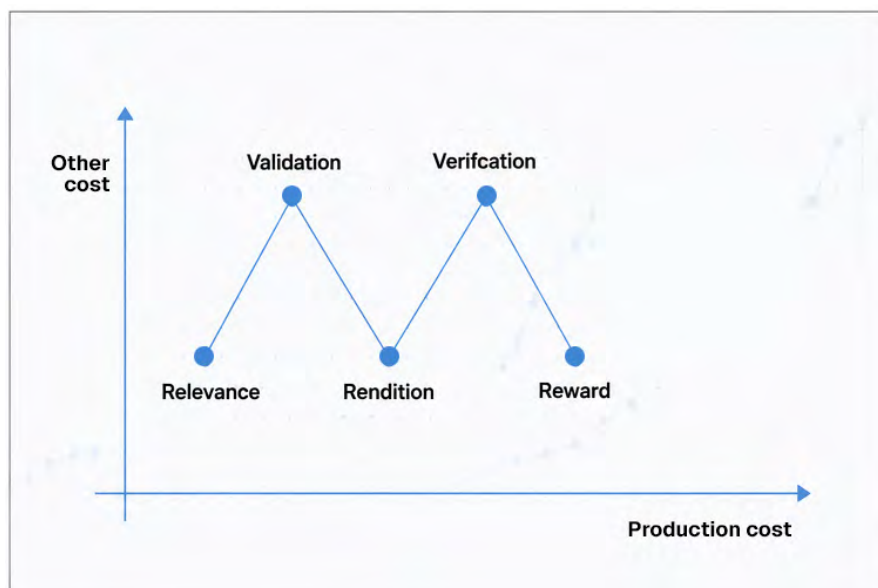
They also create problems when it comes to Reward, Validation and Verification

We see the traditional training cost model like this:



Creating courses including Relevance, Rendition and Reward costs a given amount. Validation is typically included by default as the course creator who will be some kind of Subject Matter Expert. Verification is included in the course rendition process (e.g. tutor/learner testing).

The AI model looks different. Costs of course creation, rendition etc may be significantly reduced but the cost model now has a second dimension.



How do we use AI to create content?

Each AI product is different, and the process below will change. However, a summary of the process undertaken by the SkillGate LMS and LLM for the method of creating courses using an LLM is as follows:

1. We select an AI Model to work with. We currently use Microsoft's Azure OpenAI platform which provides access to the GPT 5.4 Large Language Model, and GPT Image 2 for text and image generation respectively. Each provider has different strengths and its own business and security parameters that need to be accommodated. See Ethics for conditions.
2. Depending on the LMS feature required (e.g. course creator) we write a unique 'prompt' that will be sent to the LLM provider.
3. An LMS User interface allows a User to add variables to the prompt if required (e.g. audience type, length of course). This is designed to allow control while reducing the risk of unintended or malicious user behaviour.
4. The prompt is security tested and 'sanitised' to remove unwanted User inputs.
5. On submitting, the LMS posts the prompt to the LLM provider, built from three sections:
 - **System** – text-based instructions as to how to process User information
 - **User** – text-based details as to what to process

An example of the User text for SmartAuthor AI for an Excel Charts programme prompt:

'Generate a Programme that will:

- *Focus on Using charts in Excel.*
- *Be aimed at Office Workers.*
- *Have an educational level of Beginner.*

All responses MUST be in UK English.'

- **Schema** – formatted details as to what output options will be generated. In effect this is a description of the LMS Course Author. Each schema is specific to the task being performed.
6. The LLM 'black box' does its thing and delivers a response back to the LMS.
 7. The response is security tested and tested against a copy of the original Schema.
 8. The response is logged on the LMS with details of the request and processing costs.
 9. The response is added to the LMS database to be delivered and managed by the LMS Course Author system.

Notes

If the feature is using GPT 5.4 LLM it has a knowledge cut-off of 31 August 2025 which means any information after this date will not necessarily be included. As newer LLM versions are released, these models will have a later knowledge cut-off. We will review regularly and update to bring them in line with our software development, security, and AI policies.

Costs are calculated based on number of tokens used. A report of tokens used is available and limits can be set.

Ethics and transparency

The EU AI Act is not directly part of UK domestic law, but it applies to many UK businesses. Because the legislation has extraterritorial reach similar to the GDPR, it regulates any AI developer, provider, or deployer whose products or services affect individuals in the European Union.

The EU AI Act is the world's first comprehensive legal framework for artificial intelligence, classifying systems into four risk tiers. It bans unacceptable uses, requires strict compliance for high-risk tools (like healthcare or hiring), and imposes transparency rules on generative AI to ensure safe, human-centric development.

It is a good start for determining ethics and risk issues for AI policy.

Risk tiers & rules

- **Unacceptable Risk (Banned):** Systems like government social scoring, untargeted internet scraping for facial recognition, manipulative subliminal techniques, and emotion recognition in workplaces and schools.
- **High Risk (Regulated):** AI used in critical infrastructure, employment, education, or law enforcement. Providers must conduct rigorous risk assessments, maintain high-quality datasets, ensure human oversight, and guarantee cybersecurity.
- **Limited/Specific Risk (Transparency):** AI systems that interact with humans (e.g., chatbots) or generate content (e.g., deepfakes) must clearly disclose that the content or interaction is AI-generated.
- **Minimal Risk:** General AI applications like spam filters and video games are mostly unregulated

Risk assessment & transparency

Risk assessment is at the heart of managing AI, and transparency is key to assessing risks. Given the 'black box' nature and complexity of many AI system, transparency can be hard to interpret. Essentials include:

1. Validation (or source) of the content should be transparently available.
2. Data management and cyber security should be at the forefront of any discussions about, or implementations of, AI and should be accompanied by detailed risk assessment and policies.

Acceptable use

AI should be used as a tool to support decision-making and not as the decision-maker.

Users enabled to create prompts must accept an 'acceptable use agreement' which covers such areas as:

- Any personal data included is strictly necessary and the User is authorised to use it.
- The User will not upload unnecessary confidential, sensitive or special category personal data.

- The User understands that AI-generated content may contain inaccuracies, omissions or unsuitable content.
- The User will fully review, validate and approve all generated content before publication or learner use.
- And the User will not use it: for unlawful, discriminatory or harmful purposes; to knowingly upload malicious software or harmful material; to infringe intellectual property rights; to attempt to reverse engineer underlying models; to create misleading, fraudulent or deceptive content; or in breach of applicable law.

Who sees your data

Among other things, UK GDPR legislation highlights the requirement to know where data is being stored and processed. The issue is who has access to your data and what can they do with it.

SkillGate uses Microsoft's Azure OpenAI Service for its AI Models:

- For text: processing, ingress, and egress are in West Europe with zero data retention by the processor. Data is not used to train models.
- For images: processing is Worldwide, with ingress and egress in Sweden (EU), with zero data retention by the processor. Data is not used to train models.

For translation:

- For Static Translation using DeepL: processing, ingress, and egress are in the EU with zero data retention by the processor. Data is not used to train models.
- For Dynamic Translation:
 - o Elfsight – processing, ingress, and egress are Worldwide, with a limited amount of data collected (including but not limited to: IP-address, Operating System, and Browser type), data is held on Google Cloud Platform for 7 days. Data is not used to train models.
 - o Google Translate API – processing, ingress, and egress are Worldwide, with zero data retention. Data is not used to train models.

Policy & documentation

SkillGate can provide the following AI related framework policy documentation:

- Data Protection Impact Assessment – AI PDR Skills Assessment
- Data Protection Impact Assessment – AI Course Creation
- Artificial Intelligence (AI) Governance Policy
- Internal AI Acceptable Use Policy
- AI Product Development and Customer Data Standard

How will AI disrupt the training market?

AI is almost certainly going to be very disruptive for many sectors of the training markets. Below we make some suggestions you may wish to consider.

Staff

The common view is that AI will replace junior level staff roles. The consequences could be that we lose the technical, cultural and creative expertise of future generations. This is of course arguable.

AI may reduce junior labour costs but ironically it may increase senior labour costs as the expertise to train and manage the AI systems escalates.

Ford Motor Company initially took advantage of the benefits of AI to dismiss a large section of its workforce. Later it was forced to rehire 350 veteran engineers, known internally as “gray beard” engineers, after relying too heavily on artificial intelligence led to costly quality issues and recalls. These veterans are now mentoring younger staff and retraining the AI systems that initially fell short.

In Ford, instead of scrapping the technology, the “gray beards” are actively using their hard-earned wisdom to train and reprogramme AI tools to be more effective.

Documentation

AI relies on documentation. If it is not up to date the answers will be wrong. In human social systems changes are often communicated informally. In AI systems changes will need to be much more robustly documented.

Hallucinations

AI delivers answers based on processing probabilities (not ‘facts’). As a result, it does get it wrong. Christopher Mims quotes that in simple tests researchers found AI was ‘making up’ answers between 15 - 39% of the time. If we can’t trust AI to deliver 100% true output,

- what risk are we prepared to accept?
- or what additional safeguards will we have to put in place and what will they cost?

Ford utilised hundreds of AI-powered cameras to inspect vehicles, but the algorithms frequently failed to detect physical flaws while generating costly false alarms.

Verification

While the cost of producing training courses might rapidly reduce, the costs of validation and verification may escalate. The Association of Chartered Certified Accountants (ACCA) recently announced, for example, that they will no longer allow online tests and all learners must attend 'sit down' exams.

The ACCA has announced it will stop offering remote invigilated professional exams from March 2026, requiring candidates to sit in person assessments in exam halls.

ACCA Chief Executive Helen Brand said the move follows a "tipping point" in cheating technology, where AI powered tools now allow candidates to generate answers instantly and in ways that are extremely difficult to detect remotely.

More data analyst roles

Traditional LMS reports are designed to tell the training manager what they need to know. Limited training options means reports can be based on the Pareto principle. They are simplified to provide most of what is required as quickly as possible.

Once you move into the AI realms of infinite data, there is no end to the insights you will be able to deliver. But you must have the infrastructure and skills to know what to ask for, and why it is worth knowing.

One can imagine training departments becoming the hub for hiring a large workforce of data analysts.

Line manager role changes

If line managers have fewer staff to manage they are still the subject matter experts.

Line managers may have fewer staff but have to spend more time on managing work documents and related systems, validation and verification.

Move fast but be prepared to get it wrong

AI is moving fast. Competitive advantage could be huge for the first movers if they get it right. But application of AI will inevitably lead to disappointments.

The Multiverse research revealed that 67 per cent of financial organisations are deploying AI for process automation. Despite this, only 37 per cent reported that their implementation had led to transformative results, while a substantial 63 per cent are yet to see tangible returns on their investments.

This gap between adoption and effective utilisation suggests that, while the sector is spending on new technologies, many firms are not maximising AI's potential in their operations.

A separate analysis by Zopa projects that banks alone in the UK will invest GBP £1.8 billion in generative AI by the end of the decade. The inability to achieve measurable results from this outlay highlights the sector's challenge in converting AI adoption into productivity gains or commercial advantage.

Let's get together

SkillGate is moving quickly to incorporate AI that enhances all aspects of our system. We are very keen to hear from you as to how we can best apply solutions to your training & performance issues.

Other working papers from SkillGate

- ☐ Moving beyond the traditional approach to compliance training
- ☐ Performance management systems that drive individualised training
- ☐ Offering and selling your courses to customers, partners and other stakeholders
- ☐ New features to manage advanced classroom-based training
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