The greener choice?

Summary
- The role of artificial intelligence (AI) in pensions is growing quickly, offering both operational solutions and a new investment opportunity.
- The environmental, social and governance (ESG) risks surrounding AI offerings are not always well known or discussed by pension trustee boards, but there is a growing awareness emerging.
- AI-specific ESG frameworks or guidance could prove helpful for the pension industry.

With artificial intelligence (AI) playing a growing role in pension provision, Sophie Smith takes a closer look at the environmental, social and governance risks surrounding the use of AI, and whether short-term gains are being prioritised over long-term goals

Artificial intelligence (AI) is increasingly present in our day-to-day lives, with updates placing new AI solutions directly onto our phones, our TVs, and apparently, even our pensions.

Indeed, Pensions Minister, Torsten Bell, recently said that "AI is at the heart of the government's plan to kickstart an era of economic growth".

This is already feeding through into pensions, as Bell confirmed that The Pensions Regulator (TPR) has used AI in the past year to support its regulatory functions and decision-making.

Key areas where AI has been applied by TPR, according to Bell, include detecting scams, monitoring market trends, predicting pension scheme health and managing website feedback.

And use of AI is not isolated to TPR, as Trafalgar House client director, Daniel Taylor, says that AI is being embraced across pensions administration for its ability to streamline processes, enhance data accuracy, and tackle persistent labour shortages.

Saver support for the use of AI in pensions is also evident, as research from PensionBee found that savers are generally accepting of AI in pensions, provided it works alongside humans.

This increasing adoption and interest in AI has meant that the investment case for AI is also growing.

But although AI seems to be the latest industry buzzword, many industry experts are still unaware of much of the risk associated with AI.

Environmental, social and governance (ESG) risks in particular are often overlooked, especially climate risk, which stem from the huge amounts of energy required to power AI solutions.

Even without taking the toll of supply chains into account, the training process for just a single AI model requires huge amounts of electricity and emits significant amounts of carbon. Many estimates of the carbon impact are also thought to be below the real figure, given the lack of standardisation in this area.

This is just the start of the trend, as the International Energy Agency estimates that by 2026, the AI industry will have grown exponentially to consume at least 10 times its 2023 demand, and AI, cryptocurrency, and data centres could use as much electricity as Japan.

In addition to this, estimates from the World Economic Forum suggest that AI's energy use could add 0.4–1.6 gigatons of CO2 equivalent annually by 2035.

Water usage is another concern, as the strain on local resources imposed by the water consumption associated with AI, both directly for onsite server cooling and indirectly for offsite electricity generation, can worsen prolonged droughts in water-stressed regions.

E is for ...

Taylor admits that while AI presents clear opportunities for improving service delivery, its ethical and environmental risks are being largely ignored in favour of short-term gains, as the conversation remains firmly fixated on efficiency and cost-cutting.

"Despite the industry's strong focus on responsible investment, pensions administration has yet to scrutinise the environmental footprint of the AI it is adopting," he says. "The irony is that digitalisation can reduce environmental impact – cutting down on printing, postage, and transport costs – but these benefits are rarely acknowledged, let alone measured. For an industry that prides itself on ESG-conscious investing, it's time to apply the same scrutiny to its own digital footprint."

Conversations around ESG are also lacking when considering AI as a potential pension investment, as Society of Pension Professionals member and

Squire Patton Boggs director, Felix Weston, admits there hasn't been much discussion around this yet, "probably because AI investments are not directly held and are held via pooled funds".

But Weston says there is a growing appreciation of the ESG risks AI investments may present, arguing that given the rapid growth of AI-related companies, it makes sense that trustees should start taking these into account.

This is echoed by WTW head of sustainability solutions, Monique Mathys-Graaff, who says that while it is a nascent discussion, "we have been seeing early conversation" around ESG and AI.

"Pensions providers have been using AI-type systems for many years in the climate scenario analysis and so are evolving with it," she explains. "The AI impacts on natural resources are also being considered for generic ESG risk registers. However, as this development is in its early stages, there are not many schemes at this stage."

S is for ...

Concerns have also been raised around the social impact of AI, with research from McKinsey & Company suggesting that, by 2030, activities that account for up to 30 per cent of hours worked across the US economy could be automated.

However, this is an area that trustees have more awareness in, as Weston says: "While we are only just starting to see how a transition to more autonomous systems might look, a number of applicable issues will have been considered by trustees when designing their investment strategies or engaging with the companies they are invested in, which will be of direct relevance."

In addition to this, Taylor says that concerns around AI-driven job losses don't fully apply to pensions administration.

"The sector faces a chronic skills shortage, long training periods, and increasing demand for services," he explains. "A 30 per cent efficiency boost from AI won't eliminate role – it will simply allow administrators to do more with the same resources, improving response times and service quality."

However, Taylor admits AI will shift the nature of work, increasing the need for oversight and governance.

"The focus should be on reskilling staff to work alongside AI rather than replacing them," he suggests. "AI isn't replacing pensions administrators – it's keeping the sector viable."

And this oversight is clearly needed, as Taylor says that the challenge now is making sure AI automation enhances, rather than undermines, the pensions industry's hard-won security standards.

G is for...

"Poorly governed AI could lead to errors in calculations, miscommunication with members, and regulatory breaches," he warns. "While AI can enhance personalisation and improve engagement, pensions administrators must ensure that these advancements do not come at the cost of privacy, fairness, or compliance."

PensionBee chief engagement officer, Clare Reilly, agrees, warning that use of AI in personalised pension communications introduces new governance challenges, including data privacy, purpose limitation, and the risk of AI processing more personal information than necessary.

Given these concerns, Weston emphasises that using member data to create personalised communications with AI must be "strictly controlled".

"It's very important for trustees to ensure that they have robust, GDPR compliant agreements in place with their service providers that may make use of AI when providing services," he continues. "Depending on the services that will be provided, they should also consider whether data protection impact assessments are required, and if privacy notices and records of processing and lawful bases need to be updated."

Seeing through these technical concerns can be challenging, but Reilly says the pensions industry would benefit from "clearer, industry-wide guidelines on the responsible use of AI".

"We welcome efforts to develop an ESG framework for AI," Reilly says. "Such frameworks would be invaluable in helping pension providers navigate the complex ethical and environmental considerations associated with AI."

Agreeing, Weston suggests that this could act as a "welcome reference point" for pension providers.

Some guidance is already available, as TPR executive director of digital, data and technology, Paul Neville, says the regulator's Digital, Data and Technology strategy highlights some of the opportunities and risks related to AI.

Work is also underway to provide more guidance, as Bell confirmed that, to ensure AI is used responsibly and effectively, TPR has established an AI Accelerator Team and is exploring the creation of an AI Advisory Council.

Neville tells *Pensions Age* that TPR will be engaging with the market to navigate this change, to safeguard and enhance the industry's future, encouraging industry to "upskill and engage with the opportunity".

"We intend to bring together pension and technology experts in a new working group, along with professionals from other fields, to design a framework for responsible AI innovation in pensions."

The Treasury Committee also recently launched an inquiry into how AI is being deployed across financial services industries, including pensions.

There is also a flipside to the relationship between AI and ESG emerging, as Mathys-Graaff says a big opportunity that AI brings is related to climate solutions and fast-tracking learning about climate resilience, adaptation, and mitigation approaches.

Google, for instance, recently reduced the amount of energy used to cool its data centres by up to 40 per cent by applying DeepMind's machine learning.

Written by Sophie Smith