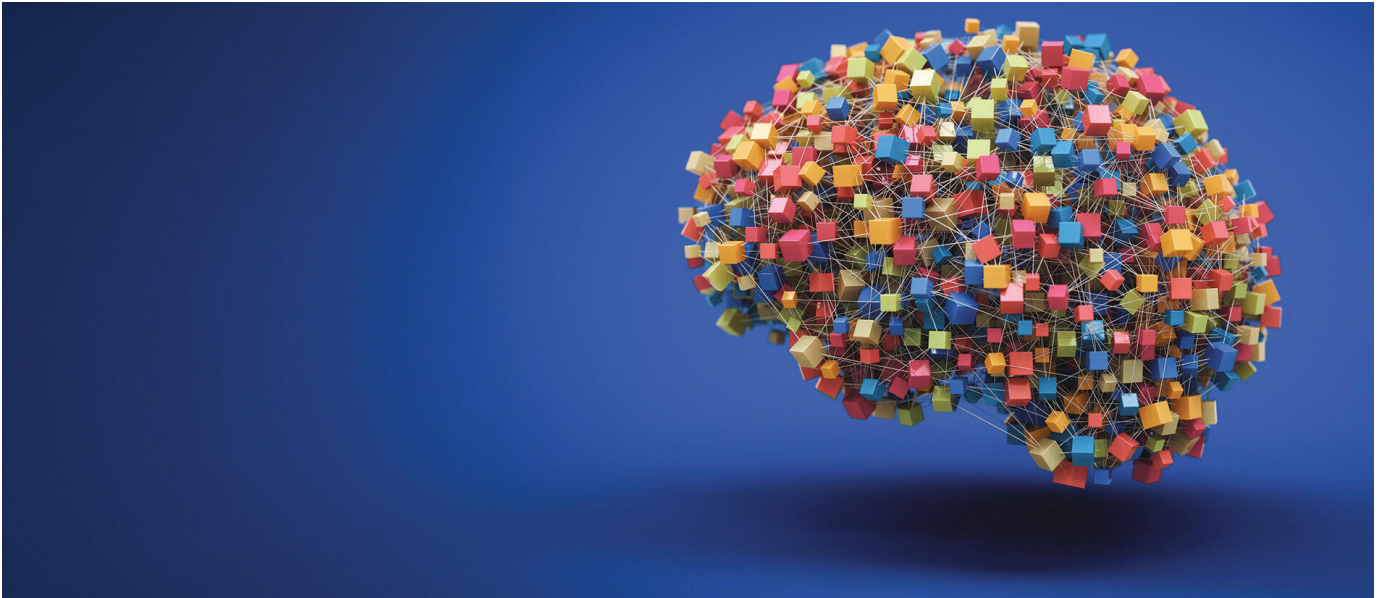


# Searching questions: artificial intelligence in tax education

## General Features



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Technology, particularly recent advances in artificial intelligence, is changing the way in which tax education is being delivered.

## Key Points

### What is the issue?

Researchers from higher education establishments from many countries met at this year's Tax Research Network Conference Education Day to present ongoing work on how AI is changing tax education.

### What does it mean for me?

Tax technology, including AI, is changing how tax practitioners operate – so tax education continually needs to develop to keep pace with changing roles.

## **What can I take away?**

The CIOT consulted in 2025 on changes to the CTA qualification with a view to factoring in the influence of technology on the tax profession, but given the pace of change, further evolution of tax qualification offerings may be needed over time.

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Artificial intelligence – or AI – two of the most talked about letters in recent years! Whether you love it, hate it or remain undecided, this is a topic that does not look set to disappear from the headlines any time soon.

It was certainly a subject that featured very heavily on the agenda of this year's Tax Research Network (TRN) conference, especially on the final day, which always focuses on tax education. See the box for more information about the TRN.

Kelly Sizer, Head of Qualifications Development at CIOT and ATT, attended this year's TRN Education Day and was particularly interested in the research on how AI is transforming tax education. Many higher education establishments are now incorporating AI-focused learning into accounting and finance degree programmes to better prepare the next generation of tax professionals for a rapidly changing digital landscape.

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## **What is the Tax Research Network?**

For those unfamiliar with the Tax Research Network (TRN), its mission is to promote collaboration and dialogue among those involved in tax research and education. It facilitates activities and events that encourage constructive debate and the sharing of ideas across disciplines and institutions.

Each year, the TRN hosts a conference bringing together tax academics, professionals, policy makers and educators – from around the UK and abroad – to present and debate their research. In academia, tax teachers and researchers are often spread across business schools, law faculties, social policy departments, economics departments and beyond. The TRN conference therefore presents a rare and valuable opportunity for like-minded colleagues to get together and compare notes!

The annual conference spans three days: two days dedicated to research topics and presentation; and a third focused entirely on tax education and pedagogy.

The CIOT has been delighted to sponsor this event for several years, including in 2025, when it was hosted by the Business School at the University of Nottingham. A total of 66 papers were delivered, with seven being presented online and one in hybrid format. The provision of online access throughout the event enabled participation from those unable to attend in person, particularly those affected by financial pressures within global higher education. Presenters from 18 countries, including the UK, delivered papers on a range of topics.

It was particularly pleasing that, along with regular attendees, many PhD students and early career researchers participated - some for the first time - further enriching the academic and professional exchange fostered by the TRN.

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## **Impact of AI on tax training**

There are numerous aspects to consider when examining how AI is reshaping tax education. Key questions include:

- How can the integrity of assessments be maintained in an era when AI tools make it easier to cheat?
- How will the growing use of AI in tax affect the skills and knowledge that future tax professionals will need? In particular, where will humans still be able to add value beyond automated compliance processes and AI-generated advice?
- How can AI be harnessed to improve teaching and assessment methods?

Research on each of these themes, among others, was presented at the TRN Education Day. It was interesting to observe how closely the work being undertaken in higher education establishments dovetails with the ongoing discussions in CIOT and ATT about how our professional qualifications might need to evolve to keep pace with change.

Reflections on some of this research are outlined below.

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## **Assessment integrity**

One of the key questions asked by researchers is how educational establishments and awarding organisations can maintain assessment integrity in a world where AI might be capable of completing students' work for them.

Hanneke du Preez and Madeleine Stiglingh from the University of Pretoria in South Africa explored this issue in their study 'Analysing AI's Performance in Taxation Educational Assessments'. Their research tested various large language models - ChatGPT, Claude and Gemini - on students' assessments. The findings revealed that while the AI systems would have failed the assessment overall, their performance on certain questions - VAT in particular - was comparable to or even better than that of the human students.

The performance of the different AI models was far from uniform. ChatGPT was found to perform better on calculation-based questions, while Gemini performed better in problem-solving tasks. However, the researchers also noted that these models are improving rapidly. Just four months after the initial data was collected, Gemini's performance was already substantially better.

This raises an important question for educators. If AI can already perform reasonably well in tax assessments and continues to improve at pace, how should assessment design evolve to ensure that human understanding, critical thinking and professional judgment remain at the heart of tax education?

### **Summative assessment**

In the context of 'summative assessment' - such as CTA or ATT exams, which evaluate achievement at the end of a learning period - the findings reinforce the importance of strict invigilation to prevent unauthorised use of AI.

This is particularly crucial for high-stake professional exams such as tax qualifications, where maintaining the integrity of the assessment process safeguards the reputation of the CIOT and ATT, so that the public can continue to place trust in the CTA and ATT designations.

### **Formative assessment**

For 'formative assessment' - ongoing assessment throughout a programme of study, such as coursework - the reality is different. It must be assumed that AI has been used, as this is impossible to police unless assessments are invigilated. In this

context, it is very much a case of: if you can't beat AI, embrace it!

At the TRN conference, we heard from researchers looking at innovative ways to integrate technology into their assessment methodology. One notable example came from Nicky Thomas at the University of Exeter, who presented her project titled 'Students, meet your new teammate - GenAI.' In this initiative, students worked together in teams to evaluate draft AI-generated outputs based on a given case study. The teams had to demonstrate how they could add value - by identifying errors, refining reasoning and contributing insights that went beyond what the AI could produce.

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## **Tax knowledge and skills of the future**

Nicky Thomas's project, which encouraged students to evaluate AI-generated outputs and demonstrate how they could add value, naturally brings us on to the broader theme of how AI is transforming tax work - and what this means for the knowledge and skills required by the next generation of tax professionals.

On this topic, Claire Scott McAteer at Queen's University Belfast presented her work 'Engaging students to become "practice ready" and "digitally proficient" taxation graduates'. In her research, students were asked to undertake a practical case study and then to prepare a professional report covering several areas of tax advice. They were required to research a tax query using generative AI and then critically evaluate the advice produced. The aim was to simulate a real-world scenario, giving students an insight into how to use AI tools responsibly, while exercising professional scepticism and judgment.

Researchers from the University of Pretoria emphasised that the question is no longer whether tax education needs to change its focus but rather *when* and *how* it should do so. The feedback that the researchers had received from employers closely aligned with that received by the CIOT: while they are satisfied that existing tax training delivers well in terms of technical capability, students are often lacking in softer skills including communication, critical thinking, business acumen and emotional intelligence. These competencies are increasingly vital in an AI-assisted professional environment.

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## Harnessing AI

Encouraging students to use AI and critique its performance, as described in the examples above, is only one way in which AI can be harnessed in tax teaching and assessment. How, though, can AI be used to develop the broader professional skills that future tax professionals will need?

Pieter Pienaar from the University of Pretoria, South Africa presented to the TRN his work 'Simulating client interactions using AI: Developing integrative and computational thinking in taxation students'. He and his colleagues have developed sophisticated AI models – essentially chatbots – which enable students to practise and ultimately be assessed on their practical tax skills.

Given the rapid pace of AI advancement, tax professionals of the future will need to demonstrate how they can add value and differentiate themselves from automated systems. The chatbots in Pienaar's project are designed to test students' interviewing and advisory skills via simulated interviews.

Students first practise extracting the information they need to give appropriate advice, demonstrating key competencies such as 'know your client' awareness, effective questioning, and how to speak with clients in clear, jargon-free language. Once they have gathered the necessary information, students move on to a second simulated client meeting where they deliver their advice.

A third chatbot is in development, which will aim to assess management and delegation skills, acting as a junior staff member to whom tasks must be successfully delegated.

The deployment of such technology may raise some ethical considerations – such as ensuring that the output is unbiased, explainable and that there is sufficient human oversight. However, it is interesting to consider the potential of AI to break down traditional barriers to learning, allowing educators to deliver training and assessment in a way that might have been unachievable in the past. These simulated 'viva' assessments by the University of Pretoria allow students the freedom to practise real-life interactions in a safe environment and obtain feedback to improve their skills.

Human-to-human 'viva' assessments are often prohibitively labour-intensive to deliver widely. They are expensive in terms of man hours and require large numbers

of qualified assessors – which it would be very difficult (if not impossible) to deliver in a smaller profession such as taxation. Provided there are appropriate safeguards in place, AI-led simulations could play a valuable role in the future, helping to provide practical training and enhance skill development in ways that were previously impractical.

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## **What does this mean for tax qualifications?**

Before anyone gets too excited, we must stress that the CIOT and ATT are **not** currently developing ‘bot-based’ assessment for their qualifications. It is worth reflecting, however, on what the future might hold as technology continues to reshape education and professional assessment.

The CIOT is currently considering changes to the CTA qualification, with a 12 week consultation period running from April to June this year. The proposals put forward include factoring in technological changes – by examining the broader landscape in which tax practitioners operate, and testing candidates’ ability to critique AI outputs.

The outcome of that consultation and the final proposals for the revised CTA qualification will be published soon. It was interesting that much of the research presented at the TRN conference reflected that those delivering tax education at universities – both in the UK and abroad – are grappling with similar considerations as those being consulted on by the CIOT.

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## **Tax Research Network Conference 2026: Not to be missed!**

The annual Tax Research Network conference is held each September and continues to be a highlight for those involved in tax research, education and practice.

In 2026, the conference will be hosted at Queen Mary University of London (dates are yet to be confirmed).

If you would like to receive updates and be notified when registration opens, you can sign up at the TRN website: <https://taxresearch.network/register>

We look forward to seeing you there!

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