# HMRC using AI to scan social media in criminal tax cases, sparking privacy concerns



HM Revenue & Customs is deploying artificial intelligence to monitor social media for signs of undisclosed wealth in criminal tax investigations, according to new reporting. The tools use image recognition and analytics to spot indicators of a luxury lifestyle — such as high-end purchases or exotic holidays — which are then fed into HMRC’s case-selection systems.

An HMRC spokesperson told the *Echo* the technology “is restricted to criminal investigations and subject to legal oversight”, and that human decision-making remains central. A recent Treasury parliamentary reply confirmed HMRC had used various AI techniques in compliance, customer service and operations over the past year, including debt-risk prediction and document analysis, with “meaningful human in the loop” safeguards.

The initiative comes amid a £46.8 billion tax gap in 2023–24, with HMRC seeking billions more through compliance work. It builds on the agency’s long-standing Connect platform, which cross-references data from banks, property registries, online marketplaces and other sources — now including social media.

However, critics warn of false positives and opaque decision-making. A recent tribunal forced HMRC to reveal whether AI was used to reject R&D tax credit claims, saying public interest outweighed the risk of aiding fraud. MPs have likened blind faith in machine output to the Post Office Horizon scandal, while campaigners call for clear audit trails and avenues for redress.

Proponents argue AI could boost productivity: a government trial found generative tools saved officials about 26 minutes a day, freeing time for complex inquiries. HMRC is recruiting data scientists and testing GenAI to increase capacity, but experts say success depends on transparency, explainability and augmenting — not replacing — human expertise.

With parliamentary scrutiny growing, the policy challenge is to balance the gains from advanced analytics with rigorous safeguards. Without clear oversight, accuracy checks and public disclosure, officials risk undermining trust in a technology they say is critical to protecting public finances.

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## Bibliography

1. <https://www.liverpoolecho.co.uk/news/cost-of-living/hmrc-using-ai-find-evidence-32250592> - Please view link - unable to able to access data
2. <https://www.gov.uk/government/news/tax-gap-estimated-at-5-3> - The GOV.UK release reports HMRC’s estimate that the UK tax gap for 2023–24 is £46.8 billion, equivalent to 5.3% of theoretical tax liabilities. It explains methodology, revisions to prior years and that small business non-compliance comprises the largest share. The statement notes HMRC collected £829.2 billion, and outlines measures intended to raise a further £7.5 billion through compliance improvements. The publication breaks down gaps by tax type, describes uncertainty and revisions, and emphasises the department’s commitment to improving data and analytical approaches to reduce lost revenue while maintaining legal and data‑protection safeguards for taxpayers and informing future policy decisions robustly.
3. <https://www.ft.com/content/ca8e65f8-f2fc-4121-ab78-0d3f804cc01a> - The Financial Times reports a tribunal ruling that HM Revenue & Customs must disclose whether it used artificial intelligence when rejecting research and development tax credit claims following a Freedom of Information request by tax specialist Tom Elsbury. The tribunal rejected HMRC’s earlier refusal — supported by the Information Commissioner’s Office — which had argued disclosure could aid fraud. Judge Alexandra Marks found public interest favoured transparency and set a compliance deadline. The piece stresses risks including reduced taxpayer trust, possible confidentiality breaches where sensitive defence-related information may be exposed, and HMRC is reviewing the judgment before deciding its response.
4. <https://www.gov.uk/government/news/landmark-government-trial-shows-ai-could-save-civil-servants-nearly-2-weeks-a-year> - The GOV.UK press release describes a government trial in which more than 20,000 civil servants used generative AI tools over three months, finding average time savings of about 26 minutes per person per day — nearly two working weeks annually. The trial covered drafting documents, summarising meetings and improving routine tasks across departments, including Work Coaches and policy teams. It emphasises productivity gains, potential to free staff for higher‑value work, and alignment with the Plan for Change. The release also highlights safeguards, guidance and frameworks to manage risks, and suggests wider rollout could support modernisation and public service efficiency improvements.
5. <https://questions-statements.parliament.uk/written-questions/detail/2025-01-28/26788> - The written parliamentary answer to Sir John Hayes confirms that over the prior 12 months HMRC employed traditional AI techniques across compliance, customer service and operations. It describes predictive analytics for debt risk and non‑compliance, document analysis to identify potential fraud, machine learning for sentiment analysis, routing correspondence and image detection to spot fraudulently used HMRC logos. The response stresses a meaningful ‘human in the loop’ for significant decisions, compliance with data protection and security standards, and that AI supports — but does not replace — human decision‑making. Reply came from the Treasury as HMRC’s explanation of current AI use.
6. <https://www.taxation.co.uk/articles/hmrc-s-connect-computer-and-investigations> - The Taxation article explains HMRC’s Connect system as a powerful data‑matching and analytics platform introduced around 2010 and developed with BAE Systems. It describes Connect’s two parts — the Analytical Compliance Environment (ACE) for specialist analysis and the Integrated Compliance Environment (ICE) for visualising links — used by thousands of staff to cross‑reference HMRC and third‑party databases. Sources include property registers, banks, online marketplaces and social media. The piece warns of false positives from poor or misleading data and privacy concerns, and highlights Connect’s role in directing compliance activity, improving case selection and recovering substantial tax revenues over recent years.
7. <https://www.computerweekly.com/feature/Updating-taxation-Can-AI-and-data-analysis-help-with-HMRCs-human-resource-problem> - Computer Weekly’s feature examines HMRC’s exploration of generative AI to address resource constraints and enhance productivity. It reports HMRC is recruiting data scientists to develop GenAI tools for drafting, summarising and anomaly detection while stressing risks to public trust. An HMRC spokesperson emphasised explainability, human‑in‑the‑loop oversight and compliance with data protection standards. The piece warns of limits in training data due to legacy systems, potential hallucinations, and draws comparisons with the Post Office Horizon scandal to highlight dangers of over‑reliance on automated systems. Tax professionals caution AI must augment, not replace, human expertise in complex tax decisions and ensure fairness.