# AI reshapes the UK job market, challenging traditional graduate pathways



For decades, a university degree was seen as a steadfast gateway to secure graduate employment and elevated wages. The brightest graduates were eagerly sought by employers, and the costly investment in higher education generally paid off with strong job prospects. However, this traditional pathway is faltering amid a particularly challenging UK jobs market, especially for new graduates entering the workforce. The landscape they face is crowded and uncertain, with reports indicating a collapse in the availability of graduate jobs. James Reed, CEO of the recruitment firm Reed, recently highlighted a drastic fall in graduate job advertisements—from around 180,000 a few years ago to just 55,000 today—prompting suggestions that families might encourage their children toward manual and vocational careers instead. This downturn is attributed to several overlapping factors including sluggish economic growth, employer caution, rising labour costs due to increased National Insurance and minimum wages, and notably, the rise of artificial intelligence (AI) automating tasks traditionally performed by entry-level workers.

Economic data corroborates this gloomy scenario. A series of recent surveys reveal a cool-down in the UK labour market, with job postings declining modestly on both a monthly and annual basis. Adzuna, a job search platform, recorded a 1.3% yearly drop in online adverts as of August, the first year-on-year decrease since early 2024. Meanwhile, vacancies remain above January levels but trending downward—a sign of a decelerating rather than collapsing market. Employers cite greater costs, including higher social security contributions and wage hikes, alongside global economic uncertainty, as reasons for their restrained hiring. Consultancy reports further note that permanent job vacancies in key sectors including IT and executive roles have shrunk at their fastest rate since 2020, reinforcing an atmosphere of recruitment caution.

Among the widest casualties are the roles once a natural landing for new graduates: writing reports, conducting research, and managing administrative tasks. These have increasingly been usurped by AI-powered tools such as ChatGPT and other large language models, which perform these functions faster and more cheaply. Such technologies enable users to generate presentations, summarise complex reports, and automate routine office work by simply typing in natural language commands. This transformation poses a direct threat to the traditional early-career roles that graduates have historically filled. Research from job listing services confirms that graduate-level jobs have experienced one of the sharpest declines among job postings, with digital and IT sectors among the most competitive and strained.

Yet, this disruptive force is not entirely negative. The World Economic Forum predicts that while AI could eliminate nine million jobs worldwide over the next five years, it may simultaneously create 11 million new roles. Unlike earlier technological revolutions, many of the emerging AI-related jobs do not demand in-depth technical or computer science training. This shift is reflected in the stories of young entrepreneurs and professionals who have leveraged AI to build start-ups or thrive in AI-augmented roles without traditional coding backgrounds. For instance, Jake Blaisdell, a recent international business graduate, co-founded Remy, an AI-powered app designed to reduce food waste by monitoring fridge contents and suggesting recipes. Using AI coding assistance tools, he was able to develop the app's prototype in weeks and secure significant investment. Similarly, Robert van Biljon created an AI medical assistant app that transcribes and summarises doctor-patient consultations with strong data privacy protections, showcasing practical healthcare applications.

This rise of AI extends beyond start-ups into established companies. Jobs requiring familiarity with AI are growing nearly four times faster than other roles, as consultancy reports show. Accounts managers and sales professionals in AI firms are using AI to analyse large data sets, extract key insights, and create compelling client presentations without traditional coding skills. Salaries in these roles often far exceed national averages, pointing to lucrative opportunities for those who master AI tools. Industry leaders and professionals stress the importance of daily AI tool usage to boost productivity and competitiveness. "If we speak to someone who hasn’t used ChatGPT, that’s immediately a no," says one hiring manager, underscoring AI’s integral role in modern workplaces.

Significantly, AI adoption is not confined to the tech sector or highly specialised roles. A recent report highlighted that a majority of AI users in UK apprenticeship programs come from non-technical fields such as nursing, trades, charity fundraising, and government roles. These frontline workers are employing AI solutions to address practical challenges—ranging from assisting intubated patients with gesture recognition to automating administrative burdens in construction—signaling widespread AI integration across diverse industries. The implication is that the UK's future as an AI-first nation will depend on broad, inclusive upskilling rather than narrow technical expertise alone.

For graduates and young professionals navigating this evolving job market, the consensus advice from experts is to embrace AI rather than fear it. The best way to future-proof careers may no longer be narrowly academic credentials but rather familiarity and fluency with AI applications across fields. As one AI industry leader put it, "AI won’t steal your job, but someone who knows how to use it better than you might." Staying curious, learning how AI is applied in different sectors, and adopting these tools in day-to-day work are critical strategies for success in a world where AI continues to reshape the labour market dramatically.

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* Paragraph 1 – [[1]](https://www.dailymail.co.uk/money/article-15141813/How-you-avoid-AI-stealing-job-getting-job-working-AI-Industry-experts-reveal-you-need-know-tech-careers-future.html?ns_mchannel=rss&ns_campaign=1490&ito=1490), [[5]](https://www.theguardian.com/money/article/2024/aug/29/uk-graduates-struggle-job-market), [[6]](https://www.staffingindustry.com/news/global-daily-news/competition-for-uk-graduate-jobs-heats-up-in-2024)
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1. <https://www.dailymail.co.uk/money/article-15141813/How-you-avoid-AI-stealing-job-getting-job-working-AI-Industry-experts-reveal-you-need-know-tech-careers-future.html?ns_mchannel=rss&ns_campaign=1490&ito=1490> - Please view link - unable to able to access data
2. <https://www.reuters.com/sustainability/sustainable-finance-reporting/uk-job-postings-fall-firms-downbeat-about-outlook-surveys-show-2025-09-28/> - Recent surveys indicate that the UK's labour market is cooling, with job postings declining and businesses showing pessimism about the near future. Job search site Adzuna reported a 1.3% annual decline and a 2.1% monthly decline in online job adverts as of August, the first annual drop since February. Despite this, vacancies remain above January levels, suggesting a slowdown rather than a collapse. Advertised salaries increased modestly month-over-month and saw a significant 8.9% year-over-year rise, highlighting ongoing inflationary pressures. Employers have cut hiring partly due to higher social security contributions and minimum wage increases introduced in the latest budget by Finance Minister Rachel Reeves. A separate CBI survey revealed that companies across sectors expect reduced activity in the next three months due to increased costs and global economic uncertainty, contributing further to the cautious outlook.
3. <https://www.itpro.com/technology/artificial-intelligence/the-rise-of-the-uks-invisible-ai-workforce> - A new report from Multiverse highlights the growing adoption of artificial intelligence (AI) among the UK’s 'invisible workforce'—employees in non-technical roles who are increasingly integrating AI into their daily work. According to the data, 67% of AI users in Multiverse’s apprenticeship programs are employed in traditionally non-tech roles such as nurses, tradespeople, surveyors, shipping clerks, and charity fundraisers. These frontline professionals are utilizing AI to address real-world challenges, demonstrating its practical value beyond the tech industry. Case studies include a nurse using AI for gesture and speech recognition to assist intubated patients and a joinery business owner who automated administrative tasks to boost efficiency and safety. The findings suggest sectors like healthcare, construction, and government are seeing significant AI integration, reinforcing the argument that the UK can lead as an AI-first nation—but only through inclusive upskilling across all professions.
4. <https://www.axios.com/2025/09/25/jobs-market-ai-indeed-retail> - The job market in 2025 is showing troubling signs, especially for entry-level workers and new graduates. According to data from Indeed.com, overall job postings dropped 7% in August compared to the previous year, matching the decline for entry-level roles. While the job market may not be uniquely worse for young college graduates compared to senior positions, certain sectors show deeper distress. Notably, job listings in scientific research and development have plunged nearly 25%, likely due to reduced federal funding and staffing cuts. Despite the current downturn, job postings are still slightly above pre-pandemic levels. The report draws a parallel between the job and real estate markets—suggesting that those who already have positions are in a relatively stable position, while newcomers face harsh barriers to entry.
5. <https://www.theguardian.com/money/article/2024/aug/29/uk-graduates-struggle-job-market> - Graduates in the UK are facing an increasingly challenging job market, with record competition and lower starting salaries. The Institute of Student Employers’ (ISE) annual survey recorded the highest number of applications per job since 1991, with employers receiving more than 1.2 million applications for just under 17,000 graduate vacancies. This represents a 59% increase from the previous year. The digital and IT sector was found to be the most competitive, with 205 applications per vacancy, followed by the financial and professional services, which had 188 applications for every position. Fewer than half of companies require graduates to have a 2:1 degree, contributing to the increased competition. The use of artificial intelligence (AI) in job applications is also contributing to a 'vicious circle' in recruitment, with half of employers reporting that some candidates had used AI in their applications.
6. <https://www.staffingindustry.com/news/global-daily-news/competition-for-uk-graduate-jobs-heats-up-in-2024> - Competition for graduate jobs in the UK reached an all-time high in 2024, with the average employer receiving 140 applications per position, a 59% rise compared to the previous year, according to the Institute of Student Employers’ (ISE) annual Student Recruitment Survey. ISE noted this was the highest number of applications per job recorded in over three decades—since the ISE began collecting the data in 1991. The most sought-after roles tend to be higher paid and in growth sectors, with 205 applications per vacancy in digital and IT and 188 applications per job in financial and professional services. Charity and the public sector, and the built environment are the least competitive with 74 and 85 applications per role, respectively. Competition for apprenticeships and other school leaver roles has also soared, with the average organisation receiving 113 applications per job, a 66% increase on last year. Slowdown of the graduate jobs market, use of AI to speed up job applications and widening of entry criteria are among the reasons for soaring competition, the survey noted.
7. <https://www.theguardian.com/business/2025/jan/09/permanent-job-vacancies-in-uk-shrink-at-fastest-pace-for-four-years> - Amid febrile markets and weak economic data, the monthly jobs report from the consultancy KPMG and the recruitment firm REC shows many firms reluctant to hire. The employer survey suggested vacancies for permanent roles had declined at the fastest pace since August 2020, when the UK was in the grip of the Covid pandemic. Temporary vacancies also fell in December. The labour market was slowing for much of 2024. December was the 14th month in which the jobs report registered a decline in overall vacancies. Among permanent roles, the fastest decline in vacancies was seen in the executive/professional and the IT and computing sectors. Some employers, particularly in hospitality and retail, have said the government’s £25bn increase in national insurance contributions (NICs), which will come into force in April, will depress hiring. Jon Holt, the KPMG group chief executive, said: “As we start the new year, it’s a muted one for the UK jobs market. The hiring market could continue to show signs of caution in the short term, as businesses pause to take stock of higher employment costs, a more gradual pace of interest rate cuts and rising inflation.”