Robots conjure images of some distant future – a crisp, white-walled existence. Except that time is now. Last month, one leading futurologist predicted that the global robot population, already more than 57 million, will outnumber humans by 2048, and that’s a conservative estimate.

Automation is already ingrained in everything from warehouse management to selling financial products. Workers are worried that they are going to find themselves replaced in the jobs market; employer services provider ADP recently surveyed 1,300 working adults and found that a third believe their job will be automated within the next 10 years. Yet half of those said their employer was not helping them reskill. It’s understandable something that worries younger staff in particular as they will exist for longer in this evolving jobs market. The survey found that 46 per cent of respondents aged between 16 and 35 were concerned that the rise of the robots might push them out of their current role in the next decade.

“Automation may seem like an issue for future generations,” says Jeff Phipps, managing director of ADP. “But our findings show that machines could replace thousands of employees in as little as five years. Artificial intelligence and robotics are progressing at such a pace that machines will soon have the capability to do the job of humans in a whole range
of professions and industries. And while this might be good for efficiency and productivity, it could leave thousands facing redundancy and change the face of the workplace forever.”

But Phipps remains optimistic that if people work to reskill now, they can protect their future earning potential from the bots. “More robots in the workplace won’t mean all humans become obsolete, as new and maybe better jobs will be created, while other roles will change considerably. By starting to upskill and retrain workers now, employers can ensure they and their employees are as ready as possible to work side by side with the machines.”

Not everyone thinks vast change is coming. Stephen Bevan, head of HR research development at the Institute for Employment Studies, says: “The job destroying impact of automation has been overstated, not for the first time. Fewer than 10 per cent of jobs are at risk and many different and new jobs will be created. Automation and technology are having more impact on where, when and how we work than on the numbers of jobs. The roles most at risk are those which are most routine and whose tasks and procedures are easy to ‘bake’ into algorithms, [such as] insurance claims and legal procedures.”

AI only really functions with repetitive tasks. The future will see a huge increase in demand for human-to-human roles, creative industries and IT.

But if robots and other automated systems do become capable of learning faster, performing work more efficiently and never need a coffee break, how can humans compete and protect their future pay? The good news is that they compete by focusing more on what humans do best. Valerie Wasch of the tech recruitment firm Montreal Associates says it’s vital for workers to take steps now to future-proof their earning potential. She says: “Robots and machines will not learn how to do our jobs per se. Instead, they will learn to do the daily tasks within our jobs quickly and more efficiently. Unfortunately, this means that jobs that were once done by a team of five could be condensed to one person once the repetitive elements are automated. Ultimately, it ends with the same result – but it’s an important distinction. With automation a foregone conclusion, the advice is the same as always. Diversify your skills base, undertake continuous professional development (CPD) regularly, and position yourself with an employer that is happy for this to take place under their banner (all the best employers are). Further than this, AI only really functions with repetitive tasks. The future will see a huge increase in demand for human-to-human roles, creative industries, and of course, IT.”

Wasch is clear that workers need to either develop the skills that allow them to master the machines or move into creative sectors where it seems unlikely technology can follow. “In short, learn programming,” she says bluntly. “Automation is software, made by humans, that follows pre-programmed rules. It needs human interaction and guidance to function. The greatest earning potential always comes from niche roles, and with automation a foregone conclusion, it’s a logical career path to take. If young workers have skills in programming, they will be able to not only understand how machines and robots work but also to improve on them. New positions will arise to adapt to the shifting landscape and many of those jobs will be filled by people with transferable skills. We are already seeing a huge increase in the demand for data scientists, data engineers and developers in addition to machine learning engineers. Areas like encryption, authentication and security have been growing at an exponential
rate in the last two years, and demand for cyber security specialists is increasing in tandem.”

Andy Parker, of the firm Udacity Europe, says it’s up to workers to keep their CVs competitive and protect their ability to earn. “The ‘job for life’ is over: today, the average worker in the UK can safely anticipate at least five careers in one lifetime. Employers and employees alike must cultivate a culture of lifelong learning. Your education is not complete after graduation but must be a lifelong endeavour. In the face of automation, it will be vital for workers to be adaptable enough to shift gears and learn new skills.”

One of the most effective ways to secure earning potential in the future is to find or invent a role that relies on creativity – you can’t program it, and it’s a future-proof industry.

Kirstie Mackey, director of LifeSkills at Barclays UK, agrees and says there are particular skills younger workers need to hone. “To seize the opportunities of a future workplace where automation is the norm, young people need to build their most ‘human’ skills. We don’t know exactly what the next decade’s jobs will look like yet but we know that future-focused employability skills like proactivity, problem solving and creativity will be vital. Building these characteristics will allow young people to compete in automated industries, move between sectors and jobs and adapt with a constantly changing workplace and a career path that is likely to look more like a web than a ladder.

“One of the early ways that young people can do this is getting comfortable with lifelong learning and networking with potential employers. Research shows that this can help them protect their earning power even in the short term. One of the most effective ways to secure earning potential in the future is to find or invent a role that relies on creativity – you can’t program it, and it’s a future-proof industry.”

Not everyone is worried about what robots mean for wages. Greater automation could potentially improve their pay and conditions if it boosts productivity, says James Dening, of the US-based robotic process automation firm Automation Anywhere. “The introduction of automation into the workplace does not mean that human workers will cease to exist in the future. In fact, the use of robotic process automation and cognitive bots to execute mundane and repetitive tasks, such as purchase order reconciliation, data entry or even compliance reporting, is designed to make work more human by freeing up workers from process-driven repetitive tasks and providing them with the time and space to do jobs that only humans can do.

“By freeing humans from mundane tasks and handing them to bots that can process them more efficiently, people will be able to do what they do best: use human intellect, be creative and interact with other people collaboratively to create real value for the business. Doing work that creates that added value – far more so than routine clerical data entry or manipulation – cannot but have a positive impact on the business as a whole with a matched impact on employability and pay for those workers.”