More staff training is vital

Companies must overcome skill shortages

Patch D Keyes

Aug 9th 2018

AMERICAN companies spent $91bn on staff training last year, almost a third as much again as they did in 2016. That equated to more than $1,000 for every staff member being taught, according to a survey by *Training* magazine.

This shift is highly encouraging. In broad terms, provision of on-the-job training has been shrinking—in both America and Britain it has fallen by roughly half in the past two decades. Companies are often loth to provide it. A 2009 study from the OECD, a club of mostly rich countries, worried that "industry, left to its own devices, may not have incentives to provide sufficient training." That is because workers may take advantage of their education to transfer their skills to a rival.

Training is even more important in a world of rapid technological change, where low-skilled tasks are increasingly being automated and artificial intelligence (AI) is transforming many services jobs. To have a chance of a long, high-paying career, workers need retraining.

At IBM, a computer firm, Diane Gherson, head of human resources, says that employee skills stay relevant for only three years. So training is "the lifeblood of any tech company". IBM created an "AI academy" in which employees take courses from a curriculum, provided by Coursera, an online-learning platform founded by Andrew Ng, an AI pioneer, and

Daphne Koller, a computer scientist, both of Stanford University. Roll up for such clickbait as: "Artificial intelligence process re-engineering case study", and "Improving deep neural networks: Hyperparameter tuning, Regularisation and Optimisation".

The courses are usually taught online and the staff often study in their own time. Those who complete a course can qualify for a digital "badge" which bolsters their career profile on platforms such as LinkedIn. In 2016-18 more than 200,000 IBM staffers earned 650,000 badges and the average employee undertook 60 hours of training a year. IBM also has a programme that aims to retain workers who might be lured elsewhere.

In the past five years, IBM reckons, the proportion of its employees who have advanced digital skills has risen from 30% to 80%. (Digital skills include knowledge of AI, analytics, cloud computing, the Internet of Things and cyber-security.)

Patrick Hourigan has spent nearly 12 years at IBM, initially as a systems telecoms engineer and then as a software developer. Three years ago he moved into the security division and opted for a course in machine learning and AI. It took him around 50-60 hours over six weeks. "Technology is continuously moving," he says. "Last year's tech becomes a stepping stone to this year's tech."

IBM is far from alone in emphasising the importance of training. In 2013 AT&T, a telecoms giant, launched a training initiative called Workforce 2020. Part of the programme was an online platform with a tool allowing employees to analyse hiring trends within the company and find out which skills are needed to qualify for the jobs. Together with Georgia Tech, a university, and Udacity, an online education group, AT&T offers a low-cost master's degree in computer science.

As multinational tech companies, AT&T and IBM have all the capacity they need to offer substantial training programmes. Smaller firms may find the prospect daunting, but the existence of online courses means that it is not beyond their abilities. And they need to try. American businesses will have to fill an estimated 1.4m new computing and engineering jobs by 2020. Many companies worry about a shortage of talent in some critical areas. A recent survey by Enterprise Strategy Group, a market-intelligence firm, found that 51% of companies were short of cyber-security skills, up from 23% in 2014.

The problem may be even worse in Europe. A European Commission report last year found that 15% of workers lacked even basic digital skills, while 88% of companies had taken no action to deal with the problem. A survey by the Association of International Certified Professional Accountants found that a quarter of British workers had received no in-work training in the previous 12 months.

Yet managers know that technological change will require their workers to acquire more skills. The supply from higher education will be insufficient because of students' subject choices, and immigration may not be able to solve the problem given the political mood. So firms will have to train workers themselves. The recent increase in spending is only a start.

Economist.com/blogs/bartleby