

# Global Skills: Trends and Best Practice

A Review for the City of London

About Social Finance	3
ntroduction and Executive Summary	5
rend 1: Changes to learner and workforce demographics	9
There is an ageing population in many countries across the world	9
People are following 'non-linear' career paths	11
Growing role of entrepreneurialism amongst young people and increasing rates of self-employment	12
Globalisation is creating a more dynamic labour market	15
rend 2: Changes to the skills required for employment	17
The rise of automation and digitisation	17
Growing demand for fusion skills	18
Growth in demand for green skills	19
Growing demand for live data about skills gaps	21
rend 3: Changes to the learning ecosystem and learning methods	25
In some sectors, employer-led and 'on the job' training is increasing	26
Growth of innovative finance and social investment	27
There is a growing market in online and non-accredited courses	29
Increased linkage between schools and employers	31
Conclusion	35
Bibliography	37

#### In association with





















# About Social Finance

Social Finance (SF) is a not for profit that helps ambitious organisations and communities deliver pioneering solutions for lasting social change. We work in partnership with government, funders, and the social sector to tackle entrenched social problems in the UK and internationally. We seek transformation that is both sustainable and scalable. Everyone at Social Finance believes that change is possible. Our mission is to be an engine for social change. Our unique blend of skills and backgrounds enables us to create breakthrough solutions to society's toughest problems.

Our Skills and Employment Team aim to help more people with barriers to employment achieve sustainable, meaningful work, and to improve access and quality in lifelong learning provision. Working with others, we designed, launched and continue to manage the world's first social investment-backed programme to help people with mental illness, drug and alcohol addictions and learning disabilities into work; supported a Combined Authority to design, mobilise and manage one of the largest health and work trials globally; and have partnered with multiple local authorities to ensure their skills provision is reaching residents who will benefit the most from their offer.

We are grateful to everyone who took the time to share their experiences and expertise with us as part of this review. We hope the international experience and best practice collated here will benefit not only the City of London and its learners, but other skills and education providers globally.

About Social Finance 3



# Introduction and Executive Summary

The adult education and skills sector must urgently adapt and respond to changes in the workforce, to changes in demand for skills, and to new, innovative ways to deliver education and skills training. The combination of the ageing population in most high-income economies and the rise of automation and digitisation means that workers may need to retrain and reskill multiple times in their lifetimes. Rising levels of self-employment combined with increasing interest from young people in pursuing entrepreneurial careers requires new approaches to skills delivery, as individuals have fewer opportunities to access employer-led training. Employers may be disincentivised to provide training to employees as people follow non-linear career patterns and have more frequent job moves.

These patterns are already disrupting traditional education and skills delivery models and will have profound implications for equity of access to training, for matching the supply and demand for skills, and ultimately for economic growth. And yet the traditional education and skills sector has not always kept pace with the rate of change. This underscores the need for a responsive and dynamic skills and education sector which moves beyond traditional models, and brings in other actors, sectors, and approaches to meet this need. This agenda is particularly pressing for the City of London as it is a global hub, providing access to skills and education for people across London and the world.

The global skills gap, driven by population-level trends and changes in technology, means that eighty-seven per cent of CEOs say they are experiencing skills gaps now or expect to soon (McKinsey, 2020). Other research shows that a 'skills mismatch', characterised by a mismatch between employer demands and the skills of employees, impacts 1.3 billion people worldwide, or almost sixteen per cent of the global population (BCG, 2020).

The mission, to ensure that education and skills provision is 'future-proofed', has been even further highlighted by the COVID-19 pandemic. COVID-19 shocked the labour market, and governments from around the world stepped in to provide income and other types of support to citizens. Many people who lost their jobs during the pandemic are finding it difficult to re-enter the workforce. The pandemic also exposed the impact that long-term health conditions have on labour force participation.

It is important to consider the wider importance of skills training and education beyond the outcomes of entering, returning to, or progressing at work. Education and skills training, especially that which is provided by local authorities, plays a vital role in the local community, bringing people together and supporting local organisations. There

are well-evidenced benefits to mental health and wellbeing for people who engage in education and skill training. While this report mainly focuses on education and skills provision in its relation to employment opportunities, it is important to strike a balance between optimizing delivery for employment opportunities and providing a service which supports people in other ways.

Education and skills training also plays an important role in creating a more equal society. In the United Kingdom (UK), more than seventy per cent of children from the richest tenth of families earn five good GCSEs, compared with fewer than thirty per cent in the poorest households (IFS, 2022). It is well-known that this inequality in access to education and skills training continues into adulthood, with researchers highlighting 'the skills paradox' whereby those who are lacking basic skills are least likely to participate in formal learning (Demos, 2008). There are other axes of inequality relevant to uptake of education and skills training, such as disability, ethnicity, gender and sexuality. Education and skills training is a route to tackle inequality, and this report outlines innovative approaches being taken to support this aim.

This report looks at global trends in education and skills provision, especially in relation to employment opportunities. We provide an overview, though not an exhaustive examination, of the global trends in skills and education delivery and consider how the education and skills sector might respond. Throughout this report, we highlight examples of interesting or innovative practices that are responding to these trends.

To compile this report, we reviewed the literature and spoke to eight experts on employment, education and skills from organisations operating globally. We identified three overarching trends that will have implications for how the government will need to respond and adapt in their education and skills delivery:

- 1. Changes to workforce and learner demographics
- 2. Changes to the skills required for employment
- 3. Changes to the learning ecosystem and learning methods

Within each trend, we identified further sub-trends and case study examples of global innovative practice. These trends and sub-trends are interlinked, and it is not always possible to identify a causal relationship between a trend and the way that governments and other organisations are responding. For example, there is a rise in the ability to 'learn from anywhere' through online platforms and software but it is not clear if this is the market responding to learning needs or being driven by the possibility of revenue, or both.

The skills training market is increasingly fragmented as new many actors enter the market. Education and skills provision cannot be solely government-led, yet there is a vital role for central and local government in convening actors, working alongside the private sector and schools, and joining up provision to ensure that global needs are met, and that access and outcomes are equitable between social groups. We have seen interesting examples of this convening function which are highlighted throughout the report.



#### TREND 1:

# Changes to learner and workforce demographics

Workforce demographics globally are changing, with significant implications for the education and skills sector. As working lives get longer, job-related training will become as important to people in their midlife, as at the beginning of their career. People are increasingly following non-linear career paths, changing jobs and industries more frequently, with younger people changing jobs three times more than older people in the United States (Gallup, 2016). Young people are more interested in pursuing entrepreneurialism and globalisation is creating a more dynamic workforce with almost four per cent of the global population migrating each year (International Organisation for Migration, 2022).

There are both positive and negative drivers and consequences of this increasingly flexible workforce. For example, the loss of a 'job for life' may lead to a feeling of instability. Research about the trend of young people becoming more entrepreneurial notes that people want to shift jobs for personal growth and salary progression (Youth Futures Foundation, 2021), but this may also be driven by job insecurity, low quality jobs and lack of progression. We know that those who have been out of the workforce for a significant period due to health conditions, parental leave or time spent in prison often struggle to re-enter the workforce. The ageing population and the rise of non-linear careers will exacerbate this phenomenon.

There is a role for governments to try to prepare learners for these shifts, and to respond with support for those who need to change career, need to upskill or re-skill or who have lost their jobs.

# There is an ageing population in many countries across the world

Globally, there is an ageing population which is already having and will continue to have profound implications for the education and skills sector. In 2015, there were around 901 million people aged sixty years and over worldwide, representing 12.3% of the global population. By 2030, this will have increased to 16.4% and by 2050 to 21.3% of the global population (ONS, 2018). This ageing population is underpinned by longer life-expectancies and lower birth rates. The UK is no exception to this trend. The results from the 2021 census show that in England and Wales, 18.6% of the total population is over 65 years-old compared with 16.4% in the census from 2011 (ONS, 2022).

As working lives get longer, individuals will need to reskill and upskill perhaps multiple

times throughout their lives (Government Office for Science, 2016). There are financial and non-financial benefits to working longer. People who work longer experience better health outcomes, and employers' benefit from a more experienced and skilled workforce (Government Office for Science, 2016). However, the rise of digitization and automation in the workplace (see Trend 2) means that employers are more likely to require basic and advanced digital skills. This may mean that older people are at risk from being excluded from the workforce, which may lead to an involuntary exit (Shirmer et al., 2022). This is exacerbated by the fact that research suggests that workers aged over fifty are less likely to take part in workplace training than younger colleagues (Prime, 2022; City & Guilds Group, 2021).

Some low- and middle-income countries (LMICs) such as Nigeria and India are responding to the ageing population in higher-income countries (HICs) by actively exporting their "skills" by encouraging young people to move to HICs. Organisations like Magic Billion<sup>1</sup>, a private company based in India, map global skills demand and train their domestic labour force in priority areas. They also provide active support with job hunting and visa application processes. This provides employment opportunities to people looking for jobs and fills skill gaps in countries with an ageing population.

In HICs, one of the ways that governments are responding to the skills needs in the ageing population is through 'lifelong learning' provision. 'Lifelong learning' entails the pursuit of additional educational opportunities beyond compulsory education and is generally self-motivated and voluntary. From our research, the provision of lifelong learning appears to be often government-led, perhaps reflecting the fact that the government is filling the gap in employer- and market-led education and skills training for older people, though more research is needed.

## CASE STUDY Suwon Learning Centre

The Suwon Learning Centre in South Korea<sup>2</sup> is an innovative example of the government providing lifelong learning opportunities to all residents. The centre, overseen by Suwon City Government, aims to promote 'enjoyment from learning and happiness from sharing'. Based on community member consultation, the city develops partnerships with voluntary groups and established training providers to ensure that the local adult learning offer meets the needs across all ages. One of the primary objectives of the lifelong learning ecosystem in Suwon City is to increase literacy among older generations. There is a considerable generational gap in skills levels, with literacy competencies often lacking among older generations. The city has developed courses to decrease this gap, with 17.8% of lifelong learning courses targeting the older generations (GILL, 2018). Accessibility and increasing access to those from disadvantaged backgrounds is also a key aim. Across the city there are nearly 600 learning centres open to all members of the community; these include libraries, village halls and community centres. Most centres are within a five and ten-minute walk from a citizen's home. A diverse range of courses are on offer, including urban gardening, handy crafts, and literature. The aim is to create a personalised, human-centred learning offer for residents of all ages.

<sup>1</sup> Magic Billion. n.d. www.magicbillion.

<sup>2</sup> UNESCO. 2017. Suwon Republic of Korea. uil.unesco.org/case-study/gnlc/suwon

### People are following 'nonlinear' career paths

In the past, many people had a 'career for life', characterised by remaining in a particular industry or role for a long period of time, or even for a whole working life. However, recent analysis suggests a rise in 'non-linear' careers, characterised by moving more regularly from one job to another. Over twenty-one per cent of millennials, those born in 1980s and 1990s, in the US have changed jobs in the last year, more than three times the number of non-millennials who have done so (Gallup, 2016). In the UK, millennials have already worked as many jobs as those aged fifty-five have in their entire career (Open Study College, 2019). A 'career for life' is disappearing, with more people than ever having non-linear careers.

Our research found that better salary opportunities and personal growth were the primary reasons for an increased non-linearity in careers. Other reasons also included better work-life balance and formalising hobbies into income generating activities (FlexJobs, 2021). However, there are also signs that this trend is driven by increasing levels of job insecurity, disappearing industries, or lack of progression routes requiring frequent changes in employment (CIPD, 2019). For example, the impact of COVID-19 further increased the trend of moving sectors with many individuals losing their employment and around twenty-two per cent of UK workers realising during the lockdown that their role was not the right fit for them (Total Jobs, 2020)

Those people who have spent significant time outside of the workforce face barriers when trying to re-enter employment. People may be out of the workforce for a variety of reasons including parental leave, long-term health conditions, a period of time spent in prison or caring responsibilities. Evidence from the Learning and Work Institute found that there has been a gradual increase over the last ten years of young people who are not in employment, education, or training (NEET), due to sickness or disability (L&W, 2022). COVID-19 has also revealed the impact of long-term health conditions on labour market participation. Only twenty-three per cent of those people who are released from custody are employed six months after their release, partly due to the challenges of adjusting to employment and employers' reluctance to employ those with a conviction (Ministry of Justice, 2022).

The combination of the challenges of re-entering the workforce and the increasing non-linearity in careers highlights the pressing need for access to quality education and skills provision to support individuals throughout their lives. Access to high quality skills training is important whether an individual is looking to move between employers, between sectors, or to launch a more entrepreneurial career (see below). There is an important role for private training providers, employers and government in building an ecosystem that can facilitate such a transition and provide long-term support for people of all ages.

## CASE STUDY Ontario Second Careers Program

Ontario's Second Careers Program³, a local government programme, provides unemployed individuals with vocational skills training. The programme supports citizens who have lost their jobs due to COVID-19, belong to a low-income household, and/or have not finished high school. It allows them to transition into high-skill, in-demand occupations such as ICT and life sciences. The programme provides training that takes 52 weeks or less for both full-time and part-time students, including micro-credential programmes, and gives significant grants to cover costs. The programme aims to help people re-join the workforce quickly and is targeted at individuals pivoting to different career streams due to losing a job (MCU, 2022).

## CASE STUDY Social Innovation Fund (SIF), Netherlands

The SIF in the Netherlands<sup>4</sup> aims to support people with disabilities into formal work. People with disabilities face barriers to finding and keeping work. Reasonable adjustments are vital for promoting diversity and inclusion in the workplace (ILO, 2016). However, employers often do not know what reasonable adjustments need to be made and face financial barriers to making these adjustments. The SIF provides loans to employers to invest in creating inclusive workplaces and contributes to the jobs act that strives to create 125,000 jobs for people with disabilities by the end of 2025. The loans are repaid partly by the improved business case because people enter work, workplaces become more productive, retention rates improve and therefore ongoing recruitment costs fall. Also, the SIF makes agreements with partners in the labour market region to reward employers if they create sustainable jobs. These outcome payments are used to partially repay the loans.

# Growing role of entrepreneurialism amongst young people and increasing rates of self-employment

Rates of entrepreneurial activity among young people in the UK have more than doubled since 2000 (Global Entrepreneurship Monitoring, 2019). A survey of 1,722 18–30-year-olds found that fifty-three per cent want to set up their own businesses (Prince's Trust, 2021). This is not just a trend found in the UK and Europe. Our interviews with global stakeholders noted the importance of 'entrepreneurship' in a variety of contexts, and a global survey of 6,000 young people under 25 showed that more than half hoped to own their own business in the next 10 years (EY, 2021). An increased desire to own businesses is closely linked to non-linear careers. A nationwide survey of 2,850 adults across Great Britain found that fifty-two per cent of those surveyed desired to change their hobby into a career (Le Cordon Bleu, n.d).

<sup>3</sup> Ministry of College and Universities. 2022. www.tcu.gov.on.ca/eng/eopg/publications/sc-program-guidelines-2021-en.pdf

<sup>4</sup> Interview with expert from Social Finance Netherlands

However, despite this increased desire for more entrepreneurial careers, there appears to be a lack of well evidenced training and support available. Research conducted by the Youth Futures Foundation (YFF) with 36 young entrepreneurs found that the key barriers for entrepreneurship for young people are: a lack of guidance and mentorship, insufficient opportunities for young people to access reliable information, and a need for increased routes to access start-up funding (YFF, 2021). There is an important equity angle to this trend, with young people who have experienced discrimination being more likely to want to pursue entrepreneurship – likely in response to perceived or real exclusion from the formal labour market or experiences of discrimination at work (YFF, 2021).

This raises an interesting question about the right way for the skills sector to respond. There is clearly a need for improved access to high quality entrepreneurial skills courses and funding. However, it is also important for young people to receive skills training and support to feel that they have options to pursue all forms of income generation, including in the formal employment sector. This is especially important given that sixty per cent of businesses fail in their first three years, and that many young people may need to supplement their business income with formal employment (Telegraph, 2019).

Rates of self-employment are also rising, both in the UK and globally. In 1975, eight per cent of UK workers were self-employed, compared to fourteen per cent in 2019. Self-employed individuals earn less than employees on average, with the gap widening over time (IFS, 2020). Globally, the number of people in "vulnerable" forms of employment, which includes self-employment and working for family members, was projected to grow in 2018 and 2019 by 17 million people per year, with a growth rate of seventy-six per cent in developing economies (European Commission, 2020).

The rise of entrepreneurialism and self-employment significantly disrupts the traditional skills model. Individuals in self-employed roles will be unlikely to be able to access employer lead training. Combined with a rise in non-linear careers, employers may be disincentivised from offering high quality, continuous training. It is important therefore to consider how self-employed individuals will be able to access ongoing training. Sectors where self-employment is well established (such as among accountants, construction workers and in film production) provide insight.

In these sectors, professional and industry bodies play an important role in coordinating ongoing learning. For example, the Association of Chartered Certified Accountants<sup>5</sup> maintains a database of Registered Learning Providers which have demonstrated success in providing qualifications. The database aims to reduce the administration costs for self-employed accountants to find high-quality courses. Although this is an industry requiring professional qualifications, and therefore with strong incentives for individuals to seek out continuous learning, the model has been applied to sectors which do not require professional registration. ScreenSkills<sup>6</sup> is the industry-lead body for film, television and animation. Through grant funding from the British Film Institute and other foundations, they coordinate training and invest in building the skills needed in the sector.

In other sectors, government has taken a more active role in establishing training coordinating bodies. The Construction Industry Training Board<sup>7</sup> is a non-departmental public body, which delivers grants and coordinates training across the sector, with funding raised through a levy on large construction employers. There is likely to be a need for government to establish additional coordinating functions for individuals working in self-employment in sectors without industry bodies, to ensure that they can access high quality, ongoing training provision.

<sup>5</sup> www.accaglobal.com/gb/en.html

<sup>6</sup> www.screenskills.com/about-us/board-of-directors

<sup>7</sup> www.citb.co.uk

### Get Into, The Prince's Trust

Get Into<sup>®</sup> is a programme developed by the Prince's Trust UK which helps young people secure jobs through 'on the job' experience and training courses. This programme operates in the UK, but Prince's Trust International has expanded it to Nigeria, Rwanda, Ghana, Jamaica, Barbados, India, and Pakistan. The Prince's Trust identify growing sectors in different contexts, and approach employers to understand their opportunities and requirements for entry-level jobs. The Prince's Trust then works with the employer and other training providers to create a vocational training programme usually of about four to eight weeks, which develops the skills required by the employer and includes an element of 'soft skills' training. The 'on the job training' gives the young person the experience of the job they will be doing and shows the employer that the young person is capable, wants to learn and ultimately can do the job. At the end of the programme, the young people have gained real-world experience in the workplace, and the employer makes a decision about whether to hire them permanently. Globally The Prince's Trust has a positive outcome rate of seventy per cent (job offer rate).

In some countries, often where the minimum wage is low, The Prince's Trust are noting an increased desire from young people to have entrepreneurial job options available after the programme, as well as formal employment. They have piloted a response through their 'solar panel electrician' skills training in Nigeria, where young people learn how to install and fix solar panels. At the end of the training course, all young people are given the tools for the work, and some chose to pursue a self-employment model that better suited their aspirations and needs, even in instances where they had received an employment offer.

#### CASE STUDY Young Creator's Program, Senart

The Young Creator's Program in Senart, Paris®, supports any young person currently unemployed and looking to start a small business. In contrast to traditional employment programmes where young people are encouraged to apply for jobs based on their skills and education, this programme supports and encourages young people to pursue their entrepreneurial ideas. Staff from the Young Creator's Program have in-depth conversations with young people about their ideas and run group workshops. The staff listen to young people and improve their self-confidence. A randomised controlled trial of this programme found that individuals who participated in this programme were more likely to be employed (not necessarily self-employed) and earnt more (Crépon et al., 2018). The effects were larger for those who were the most disadvantaged. The foundation of this programme is the belief that self-employment may be a starting point but not necessarily the end point. It is about gaining confidence and skills to find the right form of employment for the young person.

<sup>8</sup> Pwcf. 2022. The Prince's Trust – Get Into. www.pwcf.org.uk/projects/princes-trust-get

<sup>9</sup> Crépon B, Duflo E, Huillery É, William P, Seban J, and Veillon P. 2018. Cream Skimming and the Comparison between Social Interventions Evidence from Entrepreneurship Programs for At-Risk Youth in France

# Globalisation is creating a more dynamic labour market

Globalisation creates an increasingly dynamic workforce, as people move across borders to access opportunities. Globalisation also makes certain sectors of the economy more vulnerable to competition from businesses abroad, and in the UK, the most vulnerable sectors to competition are characterized by a predominance of low-skilled jobs (BBC, 2012).

In 2021, there were 239,987 work-related visas granted by the UK government, and sixty-three per cent of these were for so-called 'skilled work' (UK Government, 2022a). In the UK, the majority of skilled workers settle in London, with the health sector attracting the most skilled workers.

A report, titled Brain Exports by PwC, recently argued that with a large and relatively young population, Nigeria has a Brain Capital advantage. Brain Capital is an OECD measure encompassing emotional, behavioural and cognitive health across an individual's lifespan. The report recommended that Nigeria should pursue an explicit strategy of 'exporting' these skills, particularly in the ICT and software development space, contributing to the Nigerian economy through remittances (PwC, 2022). Concurrently, the German government have recently discussed an 'opportunity card' for non-EU nationals who want to move and work in industries where there are skill shortages in Germany. We heard multiple examples in our interviews of countries identifying their skills advantages and taking steps to export these.

This trend has multiple implications for education and skills providers. It is important to recognise that even in locations with stricter migration rules, workers are competing with skilled workers in other countries and continents, as services are exported globally without the need for physical relocation. It is therefore essential that lower skilled workers can access the transferable skills needed to compete in a globalised workforce. It is also crucial for governments and employers to be able to quickly identify their value-add and skills gaps and provide flexible training to support businesses so that they can compete globally. Both implications link strongly to the next trend, around how the skills required for employment are changing, and how training providers, employers and governments are responding.

### CASE STUDY Utiva

Utiva<sup>10</sup> is one of many companies responding to the trend of increased globalisation and skill migration. The company takes advantage of the relatively young workforce in Africa and a global mismatch in skills between employers and employees. They help individuals learn digital technology skills virtually and partner with employers to hire the best talent and invest in workforce development. The company provides immersive learning through self-paced digital content and videos tailored to the business and employer's needs. They have trained over thirty thousand students to date and have a hiring rate of around eighty-five per cent. The class learnings are applied through practical projects that offer real-time mentoring to the students. Additionally, wrap-around support for job applicants in the form of LinkedIn training, CV writing and interview training is also provided.



#### TREND 2:

# Changes to the skills required for employment

Large-scale shifts in the skills needed in the workplace are not new. During the industrial revolution in Europe and the USA, technologies such as the steam engine meant that employees with basic manual skills became more productive and could undertake work previously done by more highly paid employees. The opposite effect is now occurring with the increase in automation and digitisation, whereby these technologies increase the productivity of only highly skilled employees, meaning that the demand for manual and routine skills is decreasing (McKinsey Global Institute, 2018).

The pace of change is fast, as new technologies and pressing challenges such as climate change alter the mix of skills and competencies that employers require. Employers are increasingly searching for digital, socio-emotional and green skills and less so for physical and manual skills, and basic quantitative skills. These changes are happening so quickly that employers, governments, and training providers are searching for new ways to map current skills demand and predict their future skills needs to 'future-proof' learners and the workforce.

However, these trends risk exacerbating existing inequalities, and favour those with higher levels of education. For example, the fall in demand for physical and manual skills will impact those with lower-incomes, and the rise in demand for digital skills will favour those in higher-skilled roles. Governments have a role to play to better predict these changes in employer demand, and make sure that school-aged children, and adults, have access to education and training that is relevant to current and future employer needs, and to ensure that workforce trends do not cement current inequity or create new forms of exclusion.

#### The rise of automation and digitisation

The rise of automation and digitisation in the workforce is shifting the demand for the composition of skills across the workforce. Analysis by PWC predicts that artificial intelligence, robotics, and other forms of intelligent automation may add up to \$15 trillion to the global GDP by 2030 (PWC, 2018). Such a boost in the economy will create many jobs but require retraining and upskilling of the existing workforce. Research by City & Guilds Group (2021) reveals that three in five working age adults do not feel they have the skills they will need over the next five years.

In the UK, the rise of automation and digitisation are likely to significantly impact the skill demands of employers. Automation is predicted to increase a demand for both basic digital skills and more advanced digital skills (McKinsey Global Institute, 2018). Basic

digital skills refer to IT activities such as operating a computer and advanced digital skills include programming, advanced data analysis and technology design. There will be a concurrent drop in demand for physical and manual skills (although these skills will still make up a significant proportion of the economy) (McKinsey Global Institute, 2018). Demand for simpler quantitative skills will also decrease as back-office functions begin to be automated (McKinsey Global Institute, 2018). There will also be increased demand for 'fusion skills': skills such as creativity, critical thinking, and decision-making (McKinsey Global Institute, 2018), discussed below.

There will be differences in how this trend will impact regions and population groups with different skill levels. Our interviews with education and skills experts in Latin America and South Asia noted that in low and middle-income countries, where the trend towards automation and digitisation of work is progressing more slowly, reskilling the workforce is less urgent. Instead, there is a greater focus on the transition from the informal labour market to the formal labour market.

## CASE STUDY DEVELOP Project

Lancashire Digital Skills Partnership (LDSP)<sup>III</sup> brings together public, private and third sector organisations to tackle digital skills shortages in the area and respond to the increased demand of digitisation. Funded by the Department for Culture, Media and Sport (DCMS), LDSP has undertaken a detailed audit of the local digital sector and the potential growth in the sector. This audit and the evidence base they uncovered underpin their strategy. The Future Workforce element of the LDSP focuses on ensuring the pipeline of digital skills is being built from primary school onwards. For example, LDSP is implementing the Lancashire Technical Education Vision in collaboration with providers and business by rolling out T Levels and progression pathways to higher technical qualifications, including apprenticeships aligned with business needs. LDSP is also developing a Digital Careers Journey through secondary education and post-16 education which embeds digital skills and careers provision.

### Growing demand for fusion skills

Alongside increased demand for digital skills, there is also increasing demand for 'fusion skills'. Fusion skills, sometimes called 'transversal skills' or 'transferable skills' are a set of skills and competencies combining 'soft skills' and the 'technical' skills needed to succeed in a future digital workplace (City of London Corporation, 2019; Nesta; 2019). A report by Nesta found that the top five transferable skills rated by employers are oral communication, collaboration and teamwork, initiative, problem solving, and organisational skills. McKinsey (2018) argues that automation and AI accelerate skills shifts, not just towards technological skills, but also will increase the demand for 'socioemotional skills' in the USA by twenty-six per cent and in Europe by twenty-two per cent between 2016 and 2030. 'Socio-emotional skills' here are closely related to 'fusion skills' including advanced communication and negotiation skills, interpersonal skills and empathy, leadership and managing others, and entrepreneurship and initiative-taking.

<sup>11</sup> Lancashire Skills and Employment Hub. n.d. www.lancashireskillshub.co.uk

It is already the case that these skills are in high demand from employers. The DfE's Employer Skill Survey found that two-thirds of skill-shortage vacancies were at least partially caused by a lack of people and personal skills and that the most common skill gap of this was around managing time and prioritising tasks (Government Social Research, 2020).

Since fusion skills are often learned through experience and practice, there is not much evidence about what works in terms of fusion skills training. Employers also find it difficult to assess a potential employee's fusion skills (Nesta, 2019). It is also important to consider equity in the context of fusion skills; strength of communication and leadership skills may be perceived to be stronger for people who are privileged. We know, for example, that student evaluations of their lecturers are prejudiced, based on gender and ethnicity (Heffernan, 2021).

Research commissioned by central government about future employment trends tends to take an 'industry' lens to the labour market, but for the education and skill sectors, a 'skills demand' lens, which cut across industries might be more helpful. This would enable us to understand not just industries with employment gaps, but also what skills in particular are in demand. There is certainly a role for local and central government to understand 'what works' to develop fusion skills for people of all ages and to ensure that fusion skills is a key aspect of the curriculum. More support for employers to assess and develop fusion skills will also be necessary.

## CASE STUDY DEVELOP Project

The DEVELOP project<sup>12</sup>, headed by a trans-European consortium and co-funded by the EU, has built an online environment to measure and develop fusion skills or competencies such as communication and leadership. These competencies are transferable over various job roles. They are assessed using a mix of evidence-based classical and innovative assessment methods. A complete profile is generated of the user's proficiency level and of their potential to grow in these work-related competencies. DEVELOP also gives employees the opportunity to explore a range of career goals within their organization. Users can select a goal and see how their current competency levels match that goal, identifying their strengths and areas for improvement (European Commission, 2018).

#### Growth in demand for green skills

Green skills are the knowledge, abilities, values, and attitudes needed to live in, develop and support a sustainable and resource-efficient society (UNIDO, 2022).

In 2019, the UK parliament passed legislation mandating the government to reduce the UK's net emissions of greenhouse gases by hundred per cent relative to 1990 levels by 2050. Given the increasing focus on sustainability in all areas of business, there is an increasing need for workers to develop skills to drive forward this green agenda. However, our interviews suggest that there is currently a lack of knowledge around what constitutes a 'green skill' or how to support learners to develop the right skills to support the green agenda.

<sup>12</sup> European Commission. 2018. Developing careers through transversal competencies. <a href="mailto:epale.ec.europa.eu/en/blog/">epale.ec.europa.eu/en/blog/</a> developing-careers-through-transversal-competencies

The United Nations (UN) identifies four key groups of skills relevant for green occupations, including: engineering and technical skills, science skills, operation and change management skills, and monitoring/compliance skills (UNIDO, 2022). Crucially, fusion skills are vitally important to the green economy, with the UN citing "design thinking, creativity, adaptability, resilience and empathy" as core complimentary skills. In all green economy jobs, there will be the same need for finance, project management, people management and policy development as in traditional industry – and many of these skills will be transferable.

This trend is exemplified in London, where a Greater London Authority (GLA) commissioned review of green skills demonstrated that only a small number of courses provided very specific skills, such as heat pump installation (GLA, 2022). However, training providers were supporting the green economy by training general construction workers and electricians to apply existing skills to green jobs. Several providers also run general skills courses, such as finance or project management, but with a lens on how these skills can apply to green jobs. There are interesting equity implications to expanding green skills courses: a significantly higher proportion of male learners (who are traditionally underrepresented in adult learning), learners from ethnic minority backgrounds, and learners from postcode associated with lower socioeconomic backgrounds access green skills courses compared to other forms of adult learning (GLA, 2022). In London, approximately twenty-five per cent of learners on green skills courses lived in the most deprived quintile in England, compared to just sixteen per cent for all London residents (GLA, 2022).

#### CASE STUDY Groundwork

The organisation Groundwork<sup>13</sup> runs an employment programme in East England in response to the increasing trend observed around green skills. The programme's duration is between three and six weeks and includes people aged 19-65 years old. The project is a steppingstone towards more formal and permanent employment. They conduct supervised lessons in small groups of 10-15 learners carrying out landscape improvement projects and typically work towards either a Construction Skills Certification Scheme card (a certification scheme within the UK construction industry) or units towards a Level 1 City & Guilds qualification in Land Based Studies, Practical Horticulture and Employability Skills. Wraparound support for personal development in the form of CV writing and interview training is also provided by local employers. The programme usually includes work such as building raised beds, fencing, surfacing, and clearing vegetation and small structures (Groundwork, n.d.)

<sup>13</sup> Groundwork. n.d. www.groundwork.org.uk/projects/green-skills

# Growing demand for live data about skills gaps

Due to the quickly evolving skills landscape (as referred to previously), there are concerted efforts by industry, governments, and training providers to map future skills and cater to the industry demands. A high mismatch between the demand and supply of skills leads to vacancies within the market that industries struggle to fill. With a record 1.2 million job vacancies in the three months to November 2022, more than half of businesses who reported a worker shortage stated they were unable to meet demands in the UK (IES, 2022). The need for more qualified applicants is the primary reason these businesses state for being unable to fill these vacancies. With more importance being given to digital skills, employers indicate about one-third of vacancies they find hard to fill are attributed to a need for more relevant digital skills among the applicants (DFS, 2018). Examples are search engine optimisation for digital marketing, computer-aided design for engineers, data analysis skills and programming skills for analysts (DCMS, 2018)

As a result, employers, training providers and governments are seeking more data about future employment trends to develop training which will 'future proof' the workforce. Interviewees identified a significant delay between a skill becoming "in demand", and the ability of training providers to respond. This is because most research on skills in demand is published retrospectively, often years out of date when made available. There is then also a time lag between the demand being identified, and training being developed and commissioned. This appears to be partly driving the increased participation of employers and the private sector developing and delivering their own skills courses (see section below).

Our research also identified a lack of knowledge around how individuals move between job roles, including which sectors are best for progression, how long individuals stay in jobs, and what training was needed. This limits the quality of careers advice and the ability of advisors to understand how career pathways, jobs and skills are linked. There are interesting opportunities for local and national government to analyse employment data, especially how individuals' job titles change over time, to gain more insight into this. Innovative approaches are being trailed to provide business and government with more live insight into changing skills demand, as outlined below.

## CASE STUDY The Disruption Council

To map the demand for live employment trends, the Danish government established the Disruption Council<sup>14</sup>, comprising a broad group of representatives from trade unions, employer organisations, entrepreneurs, experts, youth and ministers. Between 2017-2019, members of the Disruption Council visited workplaces that were to be transformed by digital technology. The Council researched the impact of digitalisation and shared their insights. Their input helped to launch Denmark's digital growth strategy. The strategy contained 38 initiatives to assist businesses in using new technology effectively. It further identified different ways digitisation and artificial intelligence can increase Danish citizen's welfare even when many traditional jobs are expected to disappear (Nesta, 2019).

<sup>14</sup> Nesta. 2019. Digital Frontrunners Spotlight: Denmark. www.nesta.org.uk/blog/digital-frontrunners-spotlight-denmark

## CASE STUDY Nesta Jobs Observatory

The Open Jobs Observatory<sup>15</sup> is a pilot project developed by Nesta in partnership with the Department for Education. The Observatory has developed software to collate job adverts from posting boards in particular localities and categorise them on a real-time basis. This approach has been successfully piloted with a Chamber of Commerce in England to help them understand changing trends in skills demand. The technology is in development and there are aims for this approach to become more widely available.

<sup>15</sup> Nesta. 2020. The Open Jobs Observatory. <a href="www.nesta.org.uk/project/open-jobs-observatory">www.nesta.org.uk/project/open-jobs-observatory</a>



#### TREND 3:

# Changes to the learning ecosystem and learning methods

It is clear that there has been, and continues to be, large scale shifts in both the demographics of the labour force, and the skills demanded by employers. Traditional adult education providers and more formal learning institutions have not always been able to keep pace with this shift or reach the learners who most need access to skills training (as exemplified by the fact that the least skilled learners are least likely to access adult education, and the persistent skills gaps that exist) (SMC, 2019).

This section outlines several ways in which the delivery of education and skills training is changing, mainly owing to the increasing role of the private sector, both in partnership and separately to government. There are trends related to use of social investment and innovative finance to support disadvantaged workers to reskill, an emerging trend around employers delivering courses directly, private sector disruption of traditional learning methods, with an increase of online and de-accredited learning, and the increasing presence of employers in schools and colleges.

Some of these changes are positive responses to other trends – for example, where the private sector is mobilising funding to support those at risk of job losses to retrain 'on the job'. However, where employers are delivering their own skills courses, there are risks that this targets those who already have access to the formal employment sector, exacerbating existing skills gaps. The rise of online learning, including the potential development of the metaverse as a learning platform, may further disadvantage those who are digitally excluded. It is also unclear whether this change responds to a desire from learners to learn in this way or is primarily a method for technology companies to generate revenue.

There is an important role for government here to ensure that there is coordination between learners, employers and funders, to convene and harness the energy and innovation of the private sector, whilst ensuring that disadvantaged learners are not left behind.

# In some sectors, employer-led and 'on the job' training is increasing

In today's fast-changing world, there is clearly value for employers to provide 'employer-led' or 'on the job' training to respond to the changing composition of skills demand in the workforce and to create bespoke and targeted training for their employees which the traditional education and skills sector has not yet responded to.

However, until recently, there has been a persistent trend of declining levels of in-work training. Between 2011 and 2017, UK based employers' investment in training increased from £43.8 billion to £44.2 billion, representing a real term decline in the investment in training per employees (CIPD, 2019). The likelihood of in-work training lasting for more than one week and being away from the employer's premises also declined (CIPD, 2019). UK employers provided professional training equivalent to 6.0 days per annum to a trainee and 3.6 days per employee (DFE, 2020). According to a survey, it ranked 22 within Europe on total training spends (HRD, 2016). This declining investment in 'on the job' training is one of the reasons that the Government introduced the apprenticeship levy in 2017.

However, there are early signs that this trend is starting to shift. Through our research, we have seen examples of employers launching and delivering their own sector specific training courses, the government partnering more actively with industry to provide skills courses with guaranteed job interviews, as well as employers harnessing innovative technology to train their existing workforce. This trend appears to be especially gaining traction in industries generating significant revenues and which require bespoke skills which traditional training providers have been less well equipped to provide, such as the technology sector. For example, Google have developed a Career Certificate Program, which provides learners with skills to access jobs in data analytics, IT support, project management and user design. It has been completed by over 70,000 learners to date (Google, 2022). They have recently launched a \$100m fund to help learners, particularly those without existing skills and qualifications, access this learning at no upfront cost (see example below).

In the UK, the Department for Education has made skills bootcamps a core aspect of its Lifetime Skills Guarantee (DFE, 2020). These are free courses developed in partnership between employers, skills providers, and local government, to address local skill requirements. They last up to 16 weeks, frequently have an element of "on-the-job" training, and all result in a guaranteed interview with an employer. They are mainly available in priority skills areas that respond to the changing nature of work, such as digital skills (data analytics, software development), green skills (solar energy, green agriculture) and technical skills (construction, engineering and manufacturing).

Our interview with an expert in education and skills from Latin America highlighted that there is a growing disconnect between government programmes, which are focussing on upskilling the most disadvantaged learners, and the hiring practices of technology firms, who are recruiting already highly skilled workers and then investing in training to upskill them with the necessary technical skills. We have seen examples of employers harnessing innovative technology to upskill a workforce impacted by growing automation. This includes using virtual and augmented reality to train workers who are currently in manual jobs to operate semi-autonomous robots (see case example below). This risks further exacerbating existing skills divides, with those already in employment equipped to respond to the rise of automation, with even more to learn for those who don't currently have these skills.

#### Case study Mercedes Benz

At Mercedes-Benz, employees are using Augmented Reality (AR)<sup>16</sup> to upskill and train themselves. Using AR, technicians can pull up working models of car parts in their headsets. The brand is leveraging Microsoft's HoloLens AR tool to learn manufacturing operations, initiate corporate training, as well as revolutionise sales. AR is propelling growth and introducing more accessible training and re-skilling at all levels in the company. The increased adoption of augmented reality products demonstrates that automotive businesses are responding to the trend of digitisation. The industry will also be one of the first to be affected by automation, with semi-autonomous robots replacing most of the manual tasks of assembling cars and their accessories.

## Case study Google Career Certificates Fund

Google is one of many tech employers who have actively engaged in workforce development initiatives. It recently launched a \$100m Google Career Certificates Fund<sup>17</sup>, with Social Finance US managing the fund, to upskill and re-train over 20,000 underserved Americans. The programme will give learners access to existing Google Career Certificates training with no upfront cost (Pioneer Post, 2022). Google capital and grant from Google.org – the charitable arm of Google – funded the initial capital requirement. It will work as a zero interest, outcomes-based-loan, with learners not paying any upfront money for these training programmes. Instead, they will start repaying no interest payments only after securing a job with a salary of at least \$40,000. These repayments will be reinvested to continue the support. Till now, over 70,000 Americans have completed the Certificate training, and through this fund, they want to increase the proliferation of certificate training in underserved communities. Certificate holders have been able to pivot their careers to more high-paying and high-growth sectors like data analytics, IT support, project management and user experience design (Google, 2022).

# Growth of innovative finance and social investment

Another emerging trend is the entrance of social investment to fund education and skills training. This is often referred to as 'innovative finance' and is characterised by an inflow of private capital which has a specific social aim, and which may be deployed in partnership with the public sector. Through our research, we have seen examples of innovative finance for education and skills delivery in a wide range of countries, including the UK, the USA, Palestine, India and Colombia.

<sup>16</sup> Microsoft. 2022. Mercedes-Benz and Microsoft collaborate to boost efficiency, resilience and sustainability in car production. news.microsoft.com/2022/10/12/mercedes-benz-and-microsoft-collaborate-to-boost-efficiency-resilience-and-sustainability-in-car-production

<sup>17</sup> Google. 2022. Our new \$100 million Google Career Certificates Fund. <a href="blog.google/outreach-initiatives/grow-with-google/career-certificates-fund">blog.google/outreach-initiatives/grow-with-google/career-certificates-fund</a>

Social investment and innovative finance in the skills and employment sector may take a variety of forms, including Social Impact Bonds (SIB), and Income-Share Agreement (ISAs), as well as more traditional forms of direct social investment. An ISA is an alternative to loans for tuition fees, where the education provider grants access to the course for free, and the student then repays the loan gradually when their salary has reached a certain threshold (much akin to the UK Student Loan system, with private rather than public capital). A SIB is a mechanism whereby social investors will pay upfront capital to provide a service, and another body (usually the government), only pays them a return on investment if there are verifiable, positive outcomes.

Using innovative finance as a funding mechanism has multiple aims. In the skills and employment sector this funding has been primarily used to target disadvantaged learners, through providing cheap loans for training, wrap around support to cover child-care costs, or incentivising providers to work with groups underrepresented in employment, especially women. The focus on outcomes also drives high quality data collection and has been used to test and learn what kinds of intervention work best in supporting individuals to learn and enter work. Finally, the mechanism has been used to inject significant funding into the skills market, and help interventions that work reach a sustainable scale, with funding recycled to more learners as positive outcomes are achieved. One interviewee noted that the point of private sector capital is often to fund a proof of concept so that the government can lead implementation at scale. Another interviewee noted the potential of using private sector capital to launch and scale more education and skills programmes, as many large private sector organisations were interested in using their CSR budgets for this purpose.

#### CASE STUDY Skill Impact Bond, India

India has the lowest female labour force participation in South Asia at 20.3% (World Bank, 2021). Skills programmes are input-driven and lack a strong gender lens, with only 10% of women sustaining jobs after training. The Skill Impact Bond (SIB)18 brings \$14.4m of private funding to support 50,000 young people, with sixty-two per cent women, over four years. In the Skill Impact Bond, training and access to employment are provided in COVID-19 recovery sectors such as retail, apparel, and logistics. The SIB strongly focuses on evaluating "what works" in skills delivery to support individuals (especially women) to sustain work. Within the programme, providers can be flexible to support people to develop a range of skills and find work in diverse employment sectors depending on need and facilitate job placement and post placement support. The Skill Impact Bond (SIB) is the first impact bond in India that involves private partners and a public-private partnership organisation, National Skill Development Corporation (NSDC). NSDC is one of the investors in the programme and this is a first time a quasi-government organisation has taken on the role of investor within an impact bond structure. All training is imparted through NSDC's affiliated training partners (NSDC, n.d.)

<sup>18</sup> National Skill Development Corporation. n.d. Skill Impact Bond. www.nsdcindia.org/sib

#### case study Pay It Forward Funds

Social Finance US is partnering with state governments and local workforce funders across the country to create self-sustaining pools of job training dollars called Pay It Forward Funds<sup>19</sup>. These place-based funds provide financial support in the form of an income share agreement or an outcomes-based loan to participants, at no upfront cost, who receive living stipends and wraparound support to upskill. The programmes often focus on underrepresented learners, such as veterans, people from ethnic minority backgrounds, and single female heads of household. The funds create sustainable funding cycles for training: students who experience positive employment outcomes repay the cost of their training at an affordable rate, paying it forward into a common fund to support future students. The funds blend public, philanthropic, and corporate funding to invest in sectors that are locally relevant, resilient and in high demand, including clean energy, IT, advanced manufacturing, and health care. A \$12.5m fund has launched in New Jersey, a multi-million-dollar fund has launched in Miami, and six other states are pursuing similar funds.

# There is a growing market in online and non-accredited courses

There is a marked increase in the provision of platforms and online courses for individuals to 'learn from anywhere'. Technological advances, cheaper internet and smaller technological devices have created a conducive environment for the e-learning sector to thrive. In 2020, there was a record enrolment in online learning courses, accelerated by COVID-19. However, this trend existed before the COVID-19 pandemic. Data from Coursera, a leading provider of online courses and training has seen a steady increase since 2016 (WEF, 2019).

Online courses can take a variety of forms, from Massive Open Online Courses (often called MOOCs, which refers to platforms providing a large range of free, accessible, online courses) to smaller and more bespoke courses. Courses can be delivered fully digitally, or there can be aspects of in-person teaching. They can be assessed or unassessed, credentialled or uncredentialed. There can be interaction with a course teacher (such as through the assessment of submitted work), or assessment can be fully automated. Programme duration range from a few weeks to a year and learners often have the option to obtain a formal certificate at the end of the course against a fee.

These courses are often designed by a host of private training providers, but there is also an increasing involvement of traditional educational institutions. FutureLearn, a UK based MOOC launched in 2013, is owned by the Open University and hosts courses from traditional academic institutions, private sector organisations and government partners, including the University of Manchester, Accenture, Samsung, the UK Foreign Office and Health Education England.

<sup>19</sup> Social Finance USA. n.d. socialfinance.org/product/pay-it-forward-funds/

These trends are causing a shift away from formal education towards micro-credentialled or non-accredited forms of training. This expands access to educational opportunities to people who may not be able to access formal education, because there are usually no pre-requisite qualifications, and they are often free or cheap.

However there remains a significant digital divide in the UK and globally which will mean that access to e-learning is not equitable. In the UK, 6.3% of the adult population are "internet non-users", a term used to define anyone who has either never used the internet or has not used it in the last three months (ONS, 2020) and globally, 2.9 billion people lack opportunities to go online (WEF, 2022), many of whom live in rural areas, experience poverty and other forms of disadvantage.

There is also a lack of research around to extent to which the growth in the take-up of online learning is linked to genuine learner demand, over and above other forms of learning. The proliferation of online courses means that it is difficult to quality assure them, and it is currently unclear to what extent these are pedagogically valuable or lead to improved employment opportunities. Tech companies, such as Google (see example above), who are entering the market in delivering industry specific training at scale, may well disrupt the traditional 'signalling effect' of a university degree to demonstrate skills to employers. Employers may start to look instead for industry-led training courses as a signal of the quality and competence of potential employees, which will have farreaching effects on the traditional education sector.

#### CASE STUDY SWAYAM, India

The rise in digital learning, especially MOOCs, has been transformational for urban and rural India. Study Webs of Active Learning for Young Aspiring Minds (SWAYAM)<sup>20</sup> is a free online educational programme started by the Government of India for all citizens, including students, teachers, and senior citizens. The platform engages with over thousand instructors from various Indian Universities and offers a diverse range of courses in science, engineering, technology, social sciences, law and management. The programme also offers thirty two Direct To Home (DTH) television channels telecasting educational content without a charge. These DTH channels form the backbone for education where internet access is low. To integrate formal learning with MOOCs, the government asked universities to identify courses completed on SWAYAM that can be transferred as credits on official student records. Such integration is offering training to students even in remote areas of the country that lack quality teachers (TOI, 2019).

### CASE STUDY Multiverse

Multiverse<sup>21</sup> is building an alternative to university and corporate training via professional apprenticeships. Their primary target groups are young professionals, mostly those looking for their first job, as well as working professionals looking to upskill their careers. They work closely with private employers to ascertain the skills demanded by different sectors, such as data literacy, business consulting and software engineering. They then design and develop learning curriculums aligned to these industry demands within apprenticeship standards set by the government's Institute for Apprenticeships and Technical Education (IFATE)<sup>22</sup>. The programmes are then delivered by qualified coaches who gain knowledge about the client and their operations, and the employer-trainer partnership continuously tracks the market's changing demand for skills. Since launching in 2016, they have trained over 8,000 apprenticeships in partnership with more than 500 different employers.

# Increased linkage between schools and employers

Employers are increasingly seeing the value in outreach programmes with young people in school and college settings (Student Employer Network, 2022). Indeed, a report by the Careers & Enterprise Company (2021) found that despite a decrease in interactions between students and employers during the pandemic, innovations and virtual interactions meant that employers were able to reach young people across a wider area and provide opportunities in harder-to-reach industries. One of our interviewees noted that many of the interactions between young people and employers were actually sought out by employers, rather than by the schools, because of the value that employers saw in this.

There is emerging research showing that more interactions with employers lead to better educational and employment outcomes. Young people who participate in careers talks with employers can expect to earn a wage premium and those who take part in more work-related learning activities are less likely to be not in employment, education, or training (NEET) (Education and Employers, 2019). Longitudinal studies in Australia, UK and USA show that young people who combine part-time work, such as a Saturday job or volunteering post, with their full-time study do better than expected on the job market, given their academic qualifications. More research is needed on the causal links between engagement with employers and improved job outcomes. For example, the positive outcomes could be explained by the commitment and drive of these young people to build employer links. However, another plausible explanation is that opportunity to develop relationships and links with employers early provides better information about job opportunities and readiness for the job application process (OECD, 2020).

<sup>21</sup> Multiverse. n.d. <a href="https://www.multiverse.io/">www.multiverse.io/</a>
22 <a href="https://www.multiverse.io/">www.instituteforapprenticeships.org/</a>

Indeed, the Gatsby Benchmarks of Careers Education – which were developed to create 'best practice' for careers education and schools – showed that encounters between young people and employers have a positive impact on students' career readiness and GCSE attainment (University of Derby, 2020). The Gatsby Benchmarks recommend that every pupil in schools should have one 'meaningful encounter' with an employer, and each college student should have at least two 'meaningful encounters' (Good Careers Guidance, n.d). These attempts to improve careers advice in schools are important given that recent research has revealed that careers advice is 'socially patterned', steering children in wealthier areas towards higher education and those in less affluent areas towards vocational routes (SMJ, 2022). One interviewee raised the general poor quality of school careers advice in preparing young people for the job market.

Given the positive impacts of engagement between young people and employers in school and college settings, and the widely observed trend of the 'scarring' effect that youth unemployment can have on longer-term employment outcomes (LSE, 2017), there is certainly a role for local government to facilitate the relationship between schools and colleges and employers, and to provide encouragement and guidance for employers to approach schools and colleges.

## CASE STUDY Obama Youth Job Corps

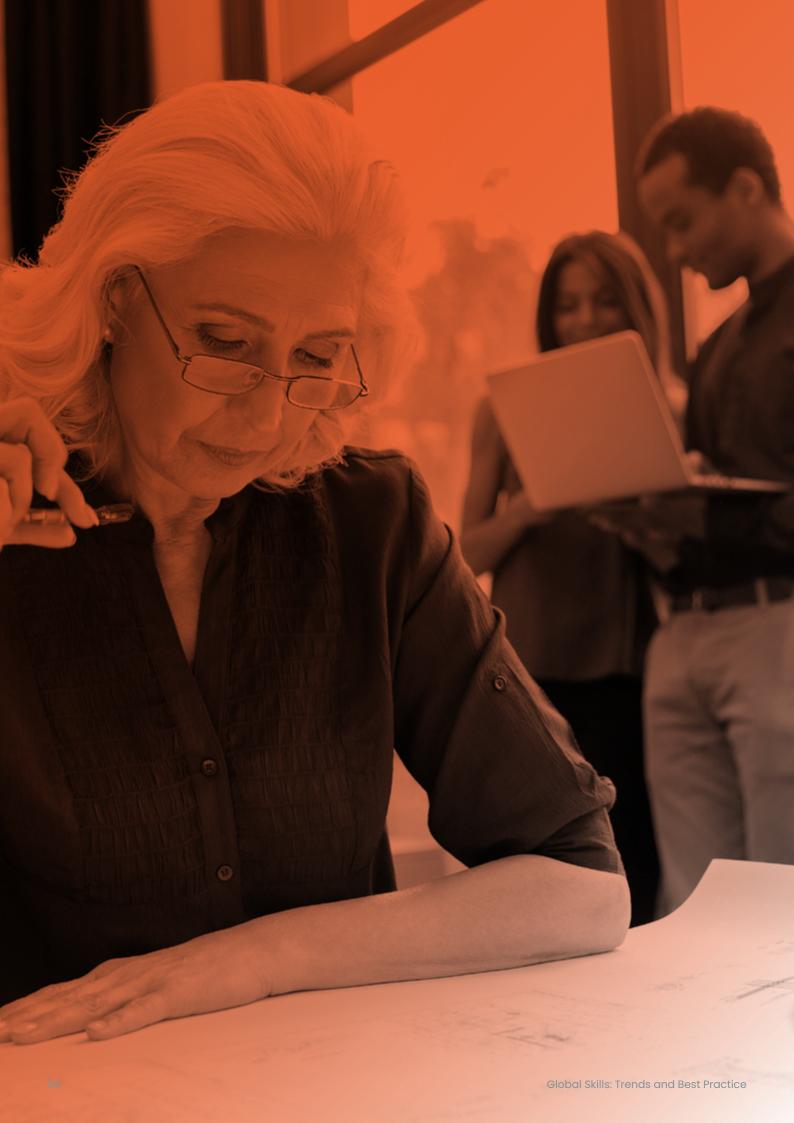
The Obama Youth Job Corps<sup>23</sup> aims to increase access to economic opportunities for high school students, in their final year of secondary school, with intensive workforce readiness training in their final year, followed by paid internship opportunities at businesses throughout the city on graduation. This combines job skills training, one-to-one mentoring and wrap around support throughout and after the internship. The organisation that manages this project engages with employers in the city to understand needs from their entry level employees, and adapts the programme offer to meet these needs. Eighty per cent of alumni connect to work or education pathways that lead to economic success within one-year post-programme.

## CASE STUDY Swedish Teacher Training

In Sweden<sup>24</sup>, as part of annual training for teachers, the public employment service provides an overview of findings from their skills forecasts. This allows teachers in Sweden to understand the trajectory of demand for skills and offer tailored and informed advice to their students as part of their career's programmes (OECD, 2017).

<sup>23</sup> Obama Foundation. 2018. Obama Foundation and Urban Alliance Launch Obama Youth Jobs Corps. <u>www.obama.org/updates/oyjc-launch/</u>

 $<sup>24\</sup> OECD.\ 2017.\ Education\ Policy\ Outlook.\ www.oecd.org/education/Education-Policy-Outlook-Country-Profile-Sweden.pdf$ 





In today's world, there are significant changes in the workforce, the workplace, and the way that education and skills training are being delivered. These have profound implications for the education and skills sector, which needs to urgently respond and adapt to changing picture. The traditional skills sector has not always kept pace with this, and the private sector is entering the market to fill gaps, particularly through expansion into the EdTech sector. Many of these trends we identify in this report have the potential to exacerbate current inequity.

There are examples of good practice of how local and central governments, third sector organisations and the private sector are working together to respond to these changes with inclusivity in mind. For example, social investors, the private sector and governments are working together in India and USA to enable access to skills courses for those excluded from training. There is an important role for government in convening the various initiatives to ensure that there is collaboration not duplication and to place equity at the top of the agenda. From Suwon's Lifelong Learning offer, to Lancashire's Digital Skills Partnership, to Ontario's Second Career Program, we have seen exciting examples of local government showing leadership in convening partners and maximising opportunities from the rapidly changing nature of the workforce, skills requirements, and evolving learning methods.

Conclusion 35



# Bibliography

- > BBC. 2012. The globalisation of work and people. https://www.bbc.co.uk/news/business-19476254
- > BCG. 2020. Fixing the Global Skills Mismatch. https://www.bcg.com/publications/2020/fixing-global-skills-mismatch
- > BLS. 2022. Employee Tenure Summary. https://www.bls.gov/news.release/tenure.htm
- > CIPD. 2019. Addressing Employer Underinvestment in Training https://www.cipd.co.uk/Images/addressing-employer-underinvestment-in-training\_tcm18-61265.pdf
- > City & Guilds Group. 2021. City & Guilds annual skills index 2021. https://www.cityandguilds.com/news/june-2021/skills-index
- > CIPD. 2019. Mega trends: is work in UK really becoming less secure? <a href="https://www.cipd.co.uk/Images/7904-meg-atrends-insecurity-report-final\_tcm18-61556.pdf">https://www.cipd.co.uk/Images/7904-meg-atrends-insecurity-report-final\_tcm18-61556.pdf</a>
- City & Guilds Group. 2021. Skills Index 2021. https://www.cityandguilds.com/-/media/cgg-website/documents/cg-skills-index-report-pdf.ashx?la=en&hash=B04AAEA0DBBF4F4A9203BBF024350A7C1B07257A
- > City of London Corporation. 2019. The Fusion Factor: White Paper. https://www.oracy.inparliament.uk/sites/oracy.inparliament.uk/files/2021-04/City%20of%20London%20Corporation\_0.pdf
- > Crépon B, Duflo E, Huillery É, William P, Seban J, and Veillon P. 2018. Cream Skimming and the Comparison between Social Interventions Evidence from Entrepreneurship Programs for At-Risk Youth in France
- DCMS. 2018. No Longer Optional: Employer Demand for Digital Skills. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/807830/No\_Longer\_Optional\_Employer\_Demand\_for\_Digital\_Skills.pdf.
- Demos. 2008. The skill paradox confronting inequality in adult learning. <a href="https://lx.iriss.org.uk/sites/default/files/resources/The%20skills%20paradox.pd">https://lx.iriss.org.uk/sites/default/files/resources/The%20skills%20paradox.pd</a>
- DFS. 2018. Employer skills survey 2017, Research report. https://assetspublishing.service. gov.uk/government/up-loads/system/uploads/attachment\_data/file/733509/Employer\_Skills\_Survey-report.pdf
- > DFE. 2020. Adults to gain new skills on 400 free courses. <a href="https://www.gov.uk/government/news/adults-to-gain-new-skills-on-400-free-courses">https://www.gov.uk/government/news/adults-to-gain-new-skills-on-400-free-courses</a>
- > DFE. 2020. Employer Skills Survey 2019: Training and Workforce Development. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/936487/ESS\_2019\_Training\_and\_Workforce\_Development\_Report\_Nov20.pdf
- > DFS. 2017. Employer skills survey 2017, Research report. https://assetspublishing.service. gov.uk/government/up-loads/system/uploads/attachment\_data/file/733509/Employer\_Skills\_Survey-report.pdf
- > Dunbar, M. Assignment Report: Engaging the Private Sector in Skills Development. HEART, UK (2013) 57 pp.
- DWP.2021. Economic labour market status of individuals aged 50 and over, trends over time. https://www.gov.uk/government/statistics/economic-labour-market-status-of-individuals-aged-50-and-over-trends-over-time-september-2021/economic-labour-market-status-of-individuals-aged-50-and-over-trends-over-time-september-2021
- > Education and employers. 2019. School-Mediated Employer Engagement and Labour Market Outcomes for Young Adults: Wage Premia, NEET Outcomes and Career Confidence. <a href="https://www.educationandemployers.org/research/school-mediated-employer-engagement-and-labour-market-outcomes-for-young-adults-wage-premia-neet-outcomes-and-career-confidence-2/">https://www.educationandemployers.org/research/school-mediated-employer-engagement-and-labour-market-outcomes-for-young-adults-wage-premia-neet-outcomes-and-career-confidence-2/</a>
- > European Commission. 2018. Developing careers through transversal competencies. https://epale.ec.europa.eu/en/blog/developing-careers-through-transversal-competencies

Bibliography 37

- > European Commission. 2020. Competence Centre on Foresight. https://knowledge4policy.ec.europa.eu/fore-sight/topic/changing-nature-work/self-employment-rises-women-are-more-solopreneurs-then-men\_en
- > FlexJobs. 2021. Career changers seek better work-life balance ahead of better pay: FlexJobs Survey. https://www.flexjobs.com/blog/post/career-changers-seek-better-balance-ahead-pay-flexjobs-survey/
- > Gallup. 2016. Millennials: The Job-Hopping Generation. Gallup. https://www.gallup.com/workplace/231587/millennials-job-hopping-generation.aspx
- > GILL. 2018.GILL's Statistics of Lifelong Education in Gyeonggi-do, GyenggiDo Provincial Institute for Lifelong Learning, Suwon. https://www.gill.or.kr/.
- > GLA.2022. Identifying green occupations in London. https://www.london.gov.uk/sites/default/files/identifying\_green\_occupations\_-\_working\_paper\_99.pdf
- > Good Career Guidance. n.d. Benchmark 5: Encounters with employers and employees. https://www.goodca-reerguidance.org.uk/case-study/encounters-with-employers-and-employees
- > Google. 2022. Our new \$100 million Google Career Certificates Fund. https://www.blog.google/outreach-initia-tives/grow-with-google/career-certificates-fund/
- > Government Office for Science. 2016. Future of an Ageing Population. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/816458/future-of-an-ageing-population.pdf
- > Government Social Research. 2020. Employer Skills Survey 2019: Summary report https://assets.publishing.ser-vice.gov.uk/government/uploads/system/uploads/attachment\_data/file/936488/ESS\_2019\_Summary\_Report\_Nov2020.pdf
- > Groundwork. n.d. https://www.groundwork.org.uk/projects/green-skills/
- Heffernan. 2021. Sexism, racism, prejudice, and bias: a literature review and synthesis of research surrounding student evaluations of courses and teaching, Assessment & Evaluation in Higher Education. <a href="https://www.tand-fonline.com/doi/full/10.1080/02602938.2021.1888075">https://www.tand-fonline.com/doi/full/10.1080/02602938.2021.1888075</a>
- > HRD. 2016. UK Ranks 22nd in Europe in training spend. https://www.thehrdirector.com/business-news/training\_and\_development/uk-ranks-22nd-in-europe-in-training-spend/
- International Organisation for Migration, 2022. World Migration Report 2022. https://worldmigrationreport.iom. int/wmr-2022-interactive
- > IES. 2022. Labour Market Statistics, November 2022. <a href="https://www.employment-studies.co.uk/resource/la-bour-market-statistics-november-2022">https://www.employment-studies.co.uk/resource/la-bour-market-statistics-november-2022</a>
- > IFS. 2020. What does the rise of self-employment tell us about the UK labour market. https://ifs.org.uk/inequali-ty/what-does-the-rise-of-self-employment-tell-us-about-the-uk-labour-market/
- > IFS. 2022. https://ifs.org.uk/articles/uk-education-system-preserves-inequality-new-report
- > ILO. 2016. Promoting diversity and inclusion through workplace adjustments. www.ilo.org/wcmsp5/groups/public/---ed\_norm/---declaration/documents/publication/wcms\_536630.pdf
- L&W. 2022. The Power of Potential: Supporting the future of 'NEET' young people in the labour market. https://www.learningandwork.org.uk/resources/research-and-reports/power-of-potential
- Le Cordon Blue. n.d. More Than Half of Brits Dream of Changing Career, Do You? https://www.cordonbleu.edu/ news/career-change-statistics-uk/en
- LSE. 2017. Youth unemployment produces multiple scarring effects. https://blogs.lse.ac.uk/europ-pblog/2017/02/18/youth-unemployment-scarring-effects
- > Magic Billion n.d. https://www.magicbillion.in
- McKinsey. 2020. Beyond hiring: How companies are reskilling to address talent gaps. https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/beyond-hiring-how-companies-are-reskilling-to-address-talent-gaps
- McKinsey. 2021. Demand for online education is growing. Are providers ready? https://www.mckinsey.com/in-dustries/education/our-insights/demand-for-online-education-is-growing-are-providers-ready
- > MCU.2022. Better Jobs Ontario. https://www.tcu.gov.on.ca/eng/eopg/programmes/sc.html
- MOJ.2022. Employment on Release statistical release to March 2022. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1087060/20220630\_Employment\_Ad-Hoc\_publication\_Bulletinv1.pdf
- > Nesta. 2019. Digital Frontrunners Spotlight: Denmark. https://www.nesta.org.uk/blog/digital-frontrunners-spotlight-denmark
- > Nesta. 2019. Transferable skills in the workplace. https://www.cityoflondon.gov.uk/assets/Services-DCCS/transferable-skills-in-the-workplace.pdf
- > NSDC. n.d. https://www.nsdcindia.org/sib
- > OECD. 2020. Dream Jobs? Teenagers' Career Aspirations and the Future of Work. https://www.oecd.org/berlin/publikationen/Dream-Jobs.pdf

- > ONS. 2018. Living longer: how our population is changing and why it matters. https://www.ons.gov.uk/releases/livinglongerhowourpopulationischangingandwhyitmatters
- > ONS. 2020. Internet users, UK: 2020. https://www.ons.gov.uk/businessindustryandtrade/itandinternetindustry/bulletins/internetusers/2020
- > ONS. 2021. Changing trends and recent shortages in the labour market, UK: 2016 to 2021. https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/changingtrendsandrecentshortagesinthelabourmarketuk/2016to2021
- > ONS. 2022. Voices of our ageing population: Living longer lives. https://www.ons.gov.uk/peoplepopulationand-community/birthsdeathsandmarriages/ageing/articles/voicesofourageingpopulation/livinglongerlives#:~:tex-t=The%20population%20of%20England%20and,the%20previous%20census%20in%20201
- > Open Study College. 2019. Why having a job for life is becoming a thing of the past. https://www.openstudycollege.com/blog/job-for-life-becoming-thing-of-past
- > Parliament. 2020. Employer lead training. https://www.publications.parliament.uk/pa/cm5801/cmselect/cmeduc/278/27809.htm PWC. 2018. Will robots really steal our jobs? An international analysis of the potential long term impact of automation. https://www.pwc.com/hu/hu/kiadvanyok/assets/pdf/impact\_of\_automation\_on\_jobs.pdf
- > Pioneer Post. 2022. Google launches \$100m careers fund, targets \$1bn impact through higher wages. https://www.pioneerspost.com/news-views/20220218/google-launches-100m-careers-fund-targets-1bn-impact-through-higher-wages
- > PwC. 2022. Nigerian Brain Exports: The Optimal Path to Growing the Nigerian Economy. https://www.pwc.com/ng/en/assets/pdf/Brain%20Exports%20Growing%20the%20Nigerian%20Economy-%20edited.pdf
- > PWC.2022. Brain Exports: Growing the Nigerian Economy. https:///www.pwc.com/ng/en/publications/brain-exports-growing-the-nigerian-economy.html
- > Schirmer, W., N. Geerts., A. Vercruyssen,. I. Glorieux. 2022. Digital skills training for older people: The importance of the 'lifeworld'. https://doi.org/10.1016/j.archger.2022.104695.
- > SMC. 2019. The adult skills gap: is falling investment in UK adults stalling social mobility. https://www.assets. publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/774085/Adult\_skills\_report\_2019.pdf
- > SMJ. 2022. Careers advice driving inequality in education, report shows. https://www.smf.co.uk/careers-advice-driving-inequality-in-education-report-shows
- > Student Employer Network. 2022. Connecting employers to students: a practical guide for engaging young people with the world of work. https://www.teachfirst.org.uk/sites/default/files/2022-02/Connecting%20employers%20to%20students.pdf
- > Telegraph. 2019. Start-ups across the UK are going bust they need more careful management for our economy to boom. https://www.telegraph.co.uk/politics/2019/01/24/start-ups-across-uk-going-bust-need-careful-management-economy
- > The Prince's Initiative for Mature Enterprise. 2014. The Missing Million: Illuminating Employment Challenges of Over 50s. https://ilcuk.org.uk/wp-content/uploads/2019/11/The\_missing\_millions\_web.pdf
- > TOI. 2019. MHRD's SWAYAM programme aims to make study material available to all. http://timesofindia.indiatimes.com/articleshow/67955817.cms
- > Total Jobs. 2020. Transferable skills: recruiting from compatible industries. www.totaljobs.com/recruiter-advice/transferable-skills-recruiting-from-compatible-industries
- > UIL (2017), Unlocking the Potential of Urban Communities Volume II Case Studies of Sixteen Learning Cities, UNE-SCO Institute for Lifelong Learning, UNESCO Institute for Lifelong Learning, Hamburg.
- > UK Government 2022a. https://www.gov.uk/government/statistics/immigration-statistics-year-ending-december-2021/summary-of-latest-statistics
- > UK Government. 2022b. https://www.gov.uk/skilled-worker-visa
- > University of Derby. 2020.Evaluation of the Gatsby Benchmarks. www.derby.ac.uk/research/centres-groups/icegs/research-and-consultancy/gatsby-report-
- > WEF. 2019. These 3 charts show the global growth in online learning. https://weforum.org/agenda/2022/01/on-line-learning-courses-reskill-skills-gap
- > WEF. 2020. The Future of Jobs Report. https://www.weforum.org/reports/the-future-of-jobs-report-2020
- > WEF. 2022. This is how to counter the global digital divide. https://www.weforum.org/agenda/2022/05/how-to-counter-the-global-digital-divide/
- > World Bank. 2021. India force participation rate, female. <a href="https://data.worldbank.org/indicator/sl.tlf.cact.fe.zs?lo-cations=IN">https://data.worldbank.org/indicator/sl.tlf.cact.fe.zs?lo-cations=IN</a>

Bibliography 39

Social Finance Ltd 87 Vauxhall Walk London, SE11 5HJ √ info@socialfinance.org.uk

**L** +44 (0) 20 7770 6836

socialfinance.org.uk

Publication date:

Disclaimer and Terms of Use

This report is not an offering of any Notes for Sale and is provided by Social Finance solely for information purposes. Neither Social Finance nor any of their respective affiliates, directors, officers, employees or agents makes any express or implied representation, warranty or undertaking with respect to this Document, and none of them accepts any responsibility or liability as to its accuracy or completeness. Social Finance has not assumed any responsibility for independent verification of the information contained herein or otherwise made available in connection to the Document. The text in this Document may be reproduced free of charge providing that it is reproduced accurately and not used in a misleading context. The material must be acknowledged as Social Finance copyright and the title of the document be specified. Social Finance is authorised and regulated by the Financial Conduct Authority FCA No: 497568