Changing skills needs: How to prepare the workforce for the jobs of the future?

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No one likes being the sad kid not invited to the birthday party. Especially when it is a party that makes your neighbours richer and happier, while your income stagnates or declines. Between 2000 and 2010, manufacturing jobs in the United States fell by 5.7 million, eliminating a traditional pathway to a middle-class lifestyle for many workers with only a high-school education. Though the US unemployment rate is nearly back to pre-crisis levels, manufacturing jobs have not recovered, and the share of high-school educated people who are not working among the civilian population has jumped from 38 per cent to 46 per cent since 2010 (US Bureau of Labor Statistics). Technological progress and globalization, purported to be “a rising tide that lifts all boats”, has left many feeling uninvited to the party.

Declines in manufacturing jobs are not limited to the United States, but are part of a global phenomenon driven by technological progress and increasingly globalized supply chains. These forces have polarised labour markets by reducing demand for routine mid-skill jobs like manufacturing, while raising demand for non-routine jobs at the low and high ends of the skills spectrum. While globalization and technological change have the potential to boost productivity and economic growth, they come with no guarantee of inclusivity. Feeling left behind from the gains of technological progress no doubt underlies the social tension and anxiety manifested in recent political change observed in several OECD countries. Governments and policy makers are being called upon to address this social anxiety, and to create conditions for more inclusive growth.

Promoting inclusive growth depends on everyone having the right skills for an increasingly digital and globalized world. Anticipating what the right skills are, however, is not a straightforward task due to changing skill needs. While automation redesigns and makes obsolete some jobs, it also generates innovative economic activities that lead to new jobs, requiring the workforce to develop a fresh set of skills. Even among workers who keep their jobs, the types of tasks they perform are changing. According to OECD estimates, less than 10 per cent of workers are in jobs that are at risk of being replaced by machines, but 25 per cent are in jobs where a high percentage of tasks (50-70 per cent) could be automated (Arntz et al., 2016). The changing nature of jobs underlines the need for workers to develop skills that make them flexible and resilient.
So which skills should workers invest in to improve their resiliency? Simply put, skills that complement the activities performed by robots and computers, and which are not themselves automatable. For instance, skills needed for non-automatable tasks, such as social skills, can be expected to rise in value (Autor, 2015). Strong interpersonal skills, needed to care for the sick and elderly, for instance, are likely to be in rising demand, particularly as societies age. Higher-skilled non-automatable tasks include solving unstructured problems or dealing with complex information, putting a premium on problem-solving skills and creativity (OECD, 2016a). Being required to shift to new tasks that are difficult to automate also requires that workers master the ability to learn new skills. In itself a skill, the ability to learn can be developed (see for instance, the following MOOC).

Information and computer technology (ICT) skills are also likely to be important for the jobs of the future. Indeed, already in most OECD countries, over 85 per cent of workers in large and medium-sized businesses now have access to and use the Internet as part of their jobs, and the share is at least 65 per cent in small business (OECD, 2013). However, the OECD’s Survey of Adult Skills (PIAAC) indicates that 50 per cent of adults in OECD countries can only carry out simple computer tasks, like writing an email or browsing the web.

To help ensure that the skills of the labour force align with skills needed by employers, education and employment policies should establish incentives to invest in the right skills. For instance, student financial support can be tied to educational programmes in high demand. Public employer services, too, can tailor adult training opportunities for displaced workers to transition to jobs for which employment prospects are strong. Countries with a well-developed vocational education system with strong links between employers and schools can also more nimbly respond to skill needs. (For more details about policy responses, see the OECD publication, “Getting Skills Right” (2016a)).

Policy success hinges on access to high-quality information about skills demand. Most OECD countries conduct some type of skill anticipation and assessment exercise, but in many cases the information is not in a format or a level of disaggregation that is meaningful for users (OECD, 2016b). As part of a new project, “Adapting to Changing Skills Needs”, the OECD is building a set of indicators to measure skill needs across countries. Available in summer 2017, this database provides an additional tool that policy makers can use to tailor policies to match skill demand and skill supply.

There is growing disillusionment worldwide with the assertion that technological progress and globalization are good for everyone – a justifiable sense of not being invited to the party. Governments and policy makers can create conditions for more inclusive growth in a number of ways. Among these, investing in the right skills is essential, both to take advantage of growth opportunities that come with innovation, but also to build workers’ resiliency so that they are not left behind.
References


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