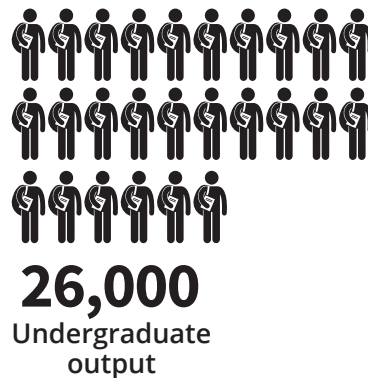




4IR AND THE FUTURE OF WORK IN SRI LANKA

From the IPS flagship publication 'Sri Lanka: State of the Economy 2019'



Source: University Grants Commission. (2017). Sri Lanka university statistics - 2017

Scientific breakthroughs in a broad spectrum of fields including genetics, artificial intelligence (AI), nanotechnology and 3D printing, are feeding into innovations that are redefining the way people reproduce, grow food, live, work and interact with each other. These trends are shifting the nature and organisation of the labour market in many ways. This chapter examines how these changes are affecting the labour market in Sri Lanka and provides recommendations for maximizing benefits from technological advancements.

How Technology is Changing the Labour Market

The ongoing technological changes are changing the labour market in many ways. Some jobs are getting obsolete due to innovations, while others are being created. At the same time, the nature

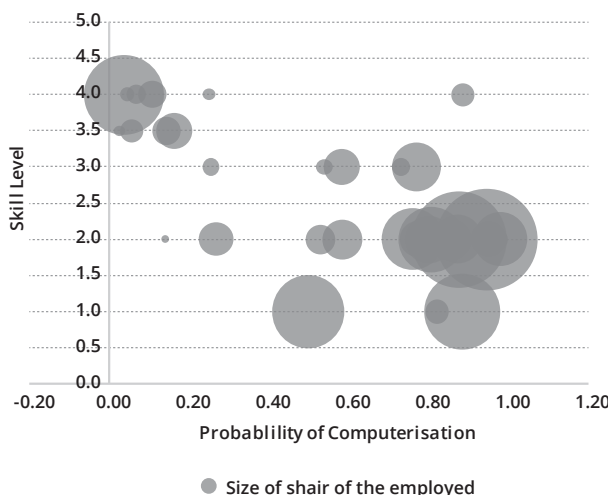
and skill requirements for other jobs are changing. Further, technological changes are increasing the demand for skilled workers. The chapter examines the the likelihood of job disruptions due to automation in Sri Lanka using methodology developed by Frey and Osborne (2017). From the 3,602,169 workers for whom the study was able to assign susceptibility to computerisation values, 70.3 per cent (or 2,530,581 workers) are involved in jobs

that have more than a 70 per cent probability of becoming outdated. However, the time taken for a replacement of these jobs will depend on the speed of technological adoption in Sri Lanka. Further, the analysis shows that the jobs that are more likely to be disrupted are semi-skilled jobs.

The types of workers engaged by firms traditionally were limited to permanent workers and temporary workers. Firms that have already functioned with a core group of workers are now relying on a diverse set of workers hired under many approaches to get the work carried out. In addition, some tasks were contracted out to consultants or other firms. Increasing automation of tasks has helped firms to get work performed by various types of workers, including off-site workers and off-shore workers.

This has also resulted in the growth of independent workers. Available data show that the labour market in Sri Lanka is also changing. The number of workers involved in innovations and startups in Sri Lanka

Probability of computerisation by occupation



Source: Authors' construction based on (Frey & Osborne, 2017) probabilities of computerisation for detailed occupations mapped to labour force data 2016.

is not very large, but the share of workers benefiting from ICT enabled jobs – such as gig workers – is growing. Further, a large share of workers is engaged in providing services, selling goods or renting assets using Internet platforms. Available information on gig-workers indicate that around 17,000-22,000 Sri Lankan workers are engaged in web-based digital labour on global platforms and 3,000 more workers in local platforms.

Policy implications

Since early 1990, Sri Lanka has been collecting labour supply data using the quarterly Labour force Surveys conducted by the DCS. More recently, the DCS also conducted a labour demand survey to obtain information on the demand side of the labour market. Nevertheless, none of these surveys capture the technology driven changes that occur in the labour market. Better methods need to be used to gather information on such changes, so that policies can be shaped to address issues arising from these changes.

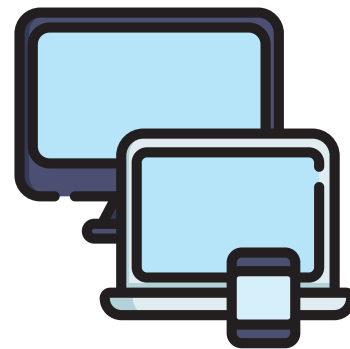
The traditional methods of planning and reforming education and training in Sri Lanka will be unable to keep up with the changes that are taking place in the labour market. The organisation and governance of the education system will need to change in the long run, so that it is able to adapt with time. Further, given the rate at which skill demands are changing in the labour market, even the children who are best prepared for the labour market will have to upgrade their skills from time to time. The education system will need to take this into account and offer opportunities for lifelong learning. Also, as discussed earlier, as routine, rule-based tasks are being taken over by computers. Therefore, jobs that remain for human to perform will involve complex tasks such as problem solving, critical thinking, decision making and creativity. The education systems should also be revised to harness such skills.

Despite the attractiveness of platform work, platform workers also face many obstacles. Mostly, platform workers are not organised and can be exploited. Further, as platform workers are self-employed, they are also not covered by social security for which workers in regular jobs are entitled to. Traditionally, social protection schemes are linked to formal sector em-

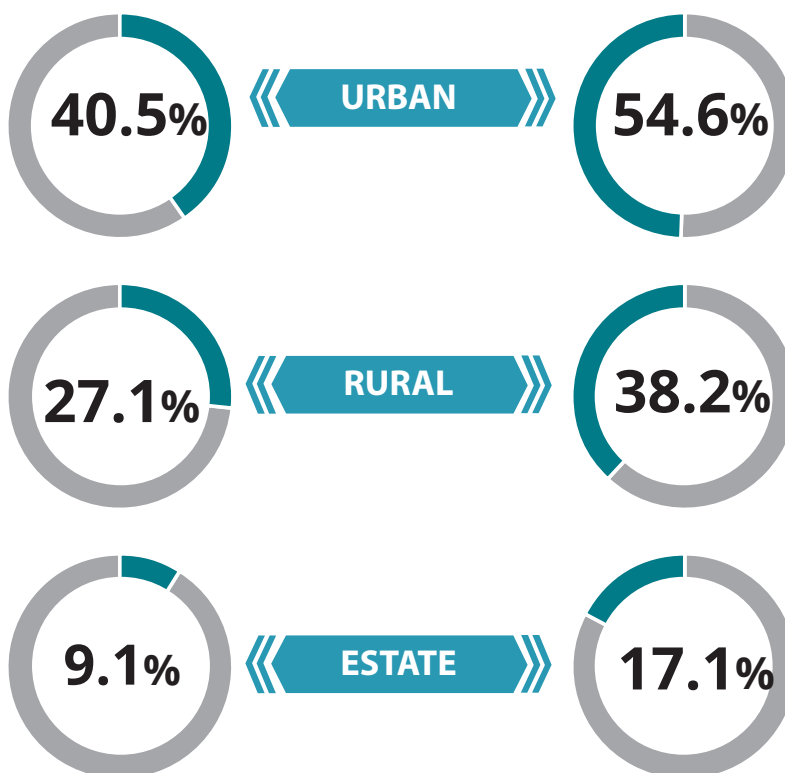
Sri Lanka's computer and digital literacy rate in 2017



Computer literacy
28.6%



Digital literacy
40.1%



Source: Department of Census and Statistics. (2017). Computer literacy statistics 2017 (Annual).

ployment. Independent workers, by definition are self-employed informal sector workers. As such, they are not covered by the usual social protection laws that are applicable to workers in the formal sector. Further, the analysis shows that generally, much more educated individuals benefit from jobs created by technology. These highlight the need to improve equitable access to tertiary education sector in the country. The analysis in this chapter shows that occupations which need an equivalent amount of tertiary level education are more likely to survive technological change than occupations carried out by low skilled workers.

This Policy Insight is based on the comprehensive chapter on "4IR and the Future of Work in Sri Lanka" in the 'Sri Lanka: State of the Economy 2019 Report' - the flagship publication of the institute of Policy Studies of Sri Lanka (IPS). The complete report can be purchased from the publications section of the IPS.



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