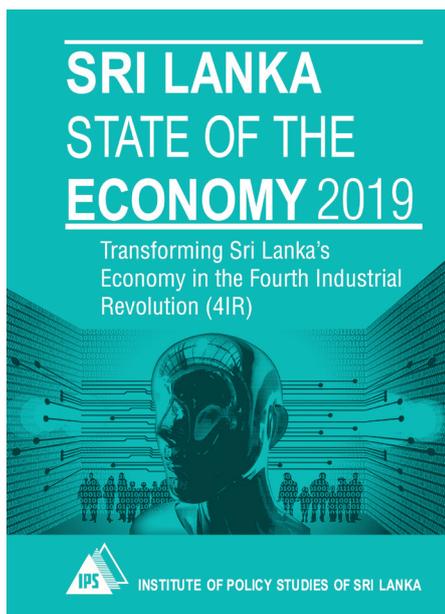




ROLE OF DATA IN THE 4IR

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



Big data is expected to play a pivotal role in the 4IR and are already being used in industrialised countries, in various areas, such as health care, education, business, banking, insurance, industries, government services, etc. To get the maximum benefit, big data and all other types of data need to be used, as much as possible. For this to be a reality, data generated through various processes or collected by various actors need to be shared.

Most government, semi-government and private sector organisations in Sri Lanka are reluctant to share their data with other agencies, mainly due to the possibility of abuse or misuse of personal data. If big data or any other type of data available are not shared, the possibility to generate new information more accurately through 4IR technologies is lost. As such, the reluctance to share data need to be addressed, through attitudinal changes as well as efforts to secure data privacy. If big data generated through routine operations of public and private

organisations are to be shared amongst many stakeholders, numerous data security issues that usually arise need to be handled carefully.

Mishandling or abuse of data, especially sensitive personal data, can lead to loss of confidence and trust and pave the way towards making cooperative efforts difficult. A strong coordinating mechanism for public-private cooperation, and strong data policies and rules to prevent any misuse of data are critical. For this, data policies to prevent the misuse of sensitive data, and means of developing a robust system which can win the trust of all stakeholders are key issues.

A barrier that may hinder the rapid adoption of 4IR technologies is widening of the 'trust gap', across the world. Security breaches, identity theft and fraud; concerns from individuals and organisations about the accuracy and use of personal data; organisations are confused about what they can do and cannot; and in-

creasing attention and sanctions from regulators are just some of the indicators. The extent to which a country can maintain an effective, predictable and efficient data protection system will be evaluated by all stakeholders. In these circumstances, trust is essential for a sustainable, inclusive, innovative and credible digital ecosystem to emerge; trust is difficult to gain and easy to lose.

Why Data Matters in the 4IR

Sri Lanka currently relies on the quarterly labour force surveys (QLFS) conducted by the Department of Census and Statistics (DCS) to capture employment and labour market developments in the economy. Such surveys need to adapt to changes that occur continuously, to generate better data to help policy makers prepare for the impacts of the 4IR. In addition to the QLFS, labour demand surveys to ascertain the demand for different type of jobs, types of skills sought by employers, etc., need to be consistently

Six essential principles for ensuring a trustworthy data system



identified. These types of information are essential to address the growing mismatch between available youth skills and employer needs, especially in view of the changes expected in the job market arising from the 4IR.

Although the sample used at present by the DCS for the QLFS and the labour demand surveys may be too small or limited to obtain precise estimates, it is still possible to study trends to identify changes in the job market, available skills and types of jobs for which the demand will decline or grow with the adoption of new technology. Such information is critical to plan suitable strategies to develop the skills sets as the entire education system, from school to technical education and universities, which need to be modified systematically to prepare the future workforce required for the 4IR.

At the same time, better data will help policy makers to meet the challenges faced by workers with inadequate skills. Even with reskilling or continuous learning – some workers may not have the capacity to improve their skills to a desired level, even if an attempt is made to develop their skills – there are risks of job displacement. The living standards of such people and their families may

Some adverse consequences related to data, but fall outside the data policy framework



further deteriorate as a result, as they slip into lower income levels or in some cases even to poverty. Income inequality may also further increase. As such, it is also necessary to continuously monitor changes in living standards with adequate datasets such as the Household Income and Expenditure Surveys (HIESs).

Policy Recommendations

- Formulate a strong data policy, which will encourage the sharing of available data (big data/data, generated through

routine operations/data collected through national surveys/censuses, to the extent possible) from different sources, and to take the maximum use of such data, for the benefit of all. It should ensure the security and legitimate use of sensitive personal data, as privacy needs to be given the highest priority, for the data system to be trusted by all, and for it be sustainable. There should not be any discrimination to anyone or any group or groups.

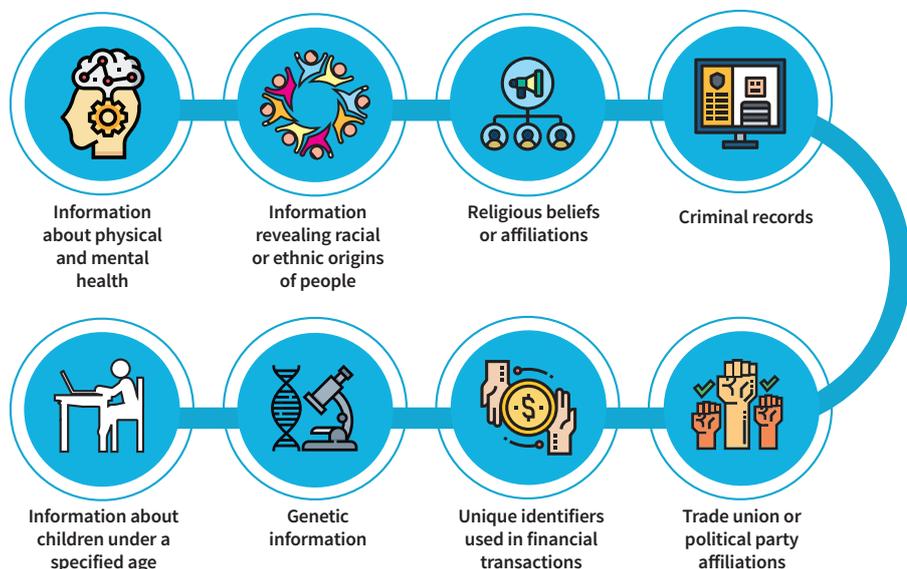
- Need to share the data, and use public-private cooperation/coordination to do so, in order to derive the maximum benefit from data in the 4IR.

- Regularly monitor the types of jobs/skills that are in demand and those for which demand is diminishing, so that appropriate action can be taken to minimise the skills gap. National datasets such

as the QLFS need to be further improved to be comprehensive, in order to obtain details on the levels of skills of the workforce and trends in demand for jobs/skills. Labour demand surveys should be conducted at least once in three years, to ascertain the types of skill needs of the employers so that the education system too can be restructured accordingly.

- Other datasets such as the HIES should be continuously analysed in-depth to monitor changes in living standards as people with low skills and their families may get affected, due to inadequate work or loss of jobs.

Common categories of sensitive data include



This Policy Insight is based on the comprehensive chapter on “Role of Data in the 4IR”: 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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