#02

When machines replace people: Policy measures for AI revolution in jobs

by
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Artificial intelligence (AI) is taking on more and more tasks in logistics and quality control. Even in the office, machines will increasingly fulfil tasks that were previously carried out by humans. Technological change has always produced winners and losers, but the expected extent of the AI transformation is very high. It is likely to affect between 20 and 30 per cent of the workforce in the near future. So how can we as a society ensure technological progress that benefits as many people as possible, not least with regard to the stability of political institutions?

So how do we deal with the changes in the labour market brought about by AI? There is a vivid debate on whether there should be a 'robot tax' or some kind of insurance that can cushion the negative effects on income. Or whether a universal basic income is needed to make the technological revolution fairer. We have therefore analysed the extent to which these policy instruments can be effective and proposed our own package of measures that combines the strengths of the three fundamental approaches:

Insurance

One approach is to create an insurance, privately or publicly, that explicitly addresses the AI transformation. If people have an increased risk, they want to protect themselves. In the event of job loss, the amount paid out by a state or privately organised institution could be higher than the unemployment benefit in order to protect the ever-thinning middle class and compensate for losses in middle incomes. A key question here is: How can it be verified whether the use of AI actually caused the situation? After all, whether an insurance policy can function efficiently depends essentially on the accuracy of the payouts.

Universal Basic Income

Another approach is to compensate for AI-related job losses or lower incomes with a fixed basic income. A tax levied in proportion to wages finances the income, which is then distributed equally. Even if the exact amount has to be set so that incentives to take up work are maintained, it can mitigate inequalities. Such a basic income is particularly advantageous if the accuracy of the payouts in an insurance scheme is low.

Robot Tax

The introduction of a robot tax would also be a viable option. Although such a tax on technology would slow down progress, it would also reduce structural change and the negative effects on the labour market. However, as the measure would be at the expense of overall economic development, it should rather be a secondary instrument.

Conclusion

It would be ideal to combine the income side of the universal basic income with the more accurate payouts of the insurance and to only use a robot tax when additionally needed and then at as low a rate as possible. In view of the rapid spread of AI, it is highly important to develop clear concepts in order to be able to react to and shape the imminent developments at all times. Our results could serve as guiding principles. Practical implementation lies in the responsibility of politicians.

This blog is based on an article for the website of the University of Graz, which was written in collaboration with Andreas Schweiger from the Department of Communication and Public Relations and is based on the following research work:

Andreas Schäfer & Maik T. Schneider
Public Policy Responses to AI
Graz Economics Working Paper 2024-06