

Potential Impact of Artificial Intelligence on Mental Well-Being

TREO Talk Paper

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Abstract

Artificial Intelligence (AI) will result in job replacement and job elimination. Some AI technologies, such as self-driving vehicles, have the potential to disrupt existing industries. Self-driving trucks may replace the 3.5 million truck drivers in the US. Scholars at Oxford University estimated that no less than 47% of American jobs and 54% of those in Europe are at a high risk of being taken over by machines. Routine, repetitive, and predictable jobs are expected to be automated (Siau, 2018). Although new jobs will be created, the unemployment rate may go up in the short term and the emergence of a “useless class” (i.e., permanently jobless) (Harari 2016) is a real possibility. PwC predicted that about seven million existing jobs could be displaced by AI from 2017-2037, but about 7.2 million jobs could be created. Many of these “expected” new jobs, however, are not in existence yet. The impact of AI on human mental well-being is a grave concern to many.

Studies showed that joblessness has an impact on human health conditions. Psychologists found that involuntary joblessness and mental health have a connection in many ways, such as incomplete psychosocial development and feelings of helplessness. Researchers stressed that it is time for our measurement system to shift emphasis from measuring economic production to measuring human well-being. Traditionally, mental well-being has been characterized as the absence of psychological illness. Current research on well-being has been derived from two general perspectives: the hedonic (i.e., feeling good) and eudaimonia (i.e., functioning well) (Ryan and Deci, 2001, Keyes and Annas, 2009). Previous studies on joblessness are not related to AI-induced joblessness. This research studies the differences between the impact of joblessness induced by AI versus other reasons. Further, this study would answer three questions: 1) What is the difference between the impact of temporary joblessness and that of permanent joblessness? 2) How would temporary joblessness induced by AI affect human mental well-being? And 3) How would permanent joblessness induced by AI affect human mental well-being?

The research methodology combines quantitative and qualitative approaches. Survey and interviews were conducted. Ryff's scale and WEMWB scale are adopted and adapted. The preliminary results show that with temporary joblessness, participants tend to feel upset and frustrated, and they have a strong will of finding a new job. With permanent joblessness, participants tend to feel desperate and helpless, and some of them prefer to adopt new hobbies. Further analysis shows that those participants with higher education level are less worried about the impact of AI. To prepare for the AI future, participants believe that they need to find a career that is irreplaceable by AI. Continuous learning, be financially prepared, and have an open mind are also mentioned by participants.

References

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