**WHITE PAPER**

**THE IMPACT ON THE WORLD OF WORK POST COVID 19**

How A.I. and COVID 19 have changed the world of work forever

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10.11.2020

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Examining the effect on Artificial Intelligence on the work force indicated that large numbers of people would be displaced. While this study was in progress COVID 19 appeared and has shown where massive areas of unemployment might take place and how the world of work as we know it will change.

*Key words:* Artificial Intelligence, Home Working, Rightsizing, Universal Basic Income, Talented employees, UYO, COVID 19, Productivity.

There have been relatively few studies on the changing world on work. Specifically, on how home working will affect organisational productivity.

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In his book (2019) Miller examined the effects of artificial intelligence(A.I.) and how the introduction of A.I. would significantly reduce employment numbers. This knock of effect had been recognised by other’s and featured in the BBC documentary “The Secrets of Silicon Valley”. The documentary was based on what Silicon Valley expect will happen in the near future.

What to do with workers who are no longer employable? This has been the subject of many debates. The consensus of opinion has been that the solution would be to pay all adults over the age of 17, Universal Basic Income (UBI). This would be paid to everyone regardless of whether you are in employment or not and would superseded all other benefits currently paid by governments. There is little evidence to show exactly how this will work but Widerquist (2017) produced a full worked example and concluded that UBI would be a cheaper option for the U.S. government and provide a solution for the future of massive unemployment in the world.

The world impact of COVID 19 in 2020 has shaken everyone. Four factors that have become very apparent are:

\* Many companies are over staffed and have been able to work with significantly reduced numbers Miller (2020)

\* The introduction of Home working has really been established with some companies (Facebook) suggesting that 50% of its workforce will work at home, Zuckerburg (2020). That equates to about 25,000 people.

\* COVID 19 has demonstrated - people are the weakest link.

\* A.I. and robotics-based companies have proved the massive benefit that they can bring to organisations, Amazon (2020)

A study carried out by the Federal Reserve Bank – Dallas USA using data on almost 5,000 working age adults, documented that 35.2 percent of the workforce worked entirely from home in May 2020, up from 8.2 percent in February 2020. Highly educated, high-income and white individuals were much more likely to shift to remote work and to maintain employment following the virus outbreak. Using available estimates of the potential number of home-based workers suggests that a large majority (71.7 percent) of US workers that could work from home, effectively did so in May. In this study 27.7% were no longer employed. (Bick, A., Blandin, A., & Mertens, K. 2020). The dramatic loss of employment tallies with a study in the GCC countries in the Middle East where organisations in the study were typically over staffed by 25% (Miller 2018).

 How much work can be done at home? It has been estimated that Globally 1 in 5 jobs can be done from home, less in underdeveloped countries. Sanchez, D. G., Parra, N. G., Ozden, C., Rijkers, B., Viollaz, M., & Winkler, H. (2020 July).

The trend to Home Working seems has exponentially gained momentum, two groups are likely to be better at accepting and doing this. Younger people will be more accepting at working from home, He, E. (2020).

Using profiling is another option to select the best fit for home workers. OCEAN (Big five) predictability of who will fit into the home working role better. A good probability would be a high C and mid O. Miller (2019). The more educated a person has the most chance of remote working. Crowley, F., Daly, H., Doran, J., Ryan, G. (2020).

It has been suggested there is a gender divide with home workers. Males being the most productive. This is probably due to the woman’s role in the home and their interaction with children. Etheridge B., Tang L. and Wang Y (2020).Productivity from home. CEPR Press paper issue 52

A common fear among employers is that without physical oversight employees will shirk and productivity will fall. There is little evidence that this happened, in fact the reverse seems to have been the case. Felstead, A and Reuschke, D (2020) ‘Homeworking in the UK: before and during the 2020 lockdown’, *WISERD Report*,

With Home working; Organisations can substantially reduce operating costs and re visit conditions of contract and payment. Also, an opportunity for employees to UYO (Use Your Own) equipment is now seen as acceptable due to the widespread use of computers in the home. The work from home model has been legitimised according to He, E. (2020) and referred to in the book *The New Future of Work In A Post-Pandemic World.*

Those most likely to be bypassed in the new world of work are the unskilled and those in less developed countries and countries who have a heavy dependency on agriculture. Gottlieb, C., Grobovšek, J., & Poschke, M. (2020)

What businesses are increasing interested in is hard data on the benefit of home working looking purely productivity, With all the modern comforts of home beckoning for our attention, it would be understandable if employers saw a dip in productivity, yet the opposite is true. According to the Airtasker study, telecommuters "worked 1.4 more days every month, or 16.8 more days every year" than people who worked in an office. Productivity Caramela, S. 2020

In financial term this can be expressed as

 Number of employees 1 x ESUC hourly inclusive rate £46.00 x extra hours worked per year (16.8 days) = 129 hours. Extra Value EV created per person at by working at home £5943.

For large companies it would be easy to work out, how fewer people could match existing work requirements. Miller T. 2019

Home worker pay would need to be revisited. Paying people for what they do, rather than for their position and what they know. Dé, R., & Tripathi, R. (2020 June 1).

DISCUSSION

For several years it has been wildly acknowledged that Artificial intelligence is advancing faster that anyone could have predicted. The consequence of this would be an impact on the workforce commencing around 2020. We have seen massive recent advances both in A.I. and robotics in 2019 Amazon using in excess of 300,000 robots and the Chinese giant Fox Conn, replacing 60,000 workers with robots in the first phase of giant automation. For some years people have been getting more and more vocal about what will happen to those who are displaced by A.I. In the words of Dr Jeremy Howard “what do you do with someone who can’t add economic value” Universal Basic Income (UBI) has been suggested as the means to iron out mass unemployment and seems to be in concept an accepted way of managing the employment fall out from the consequences of A.I.

The arrival of COVID19 fast forwarded everything, changes in working, leading to the massive shift to home working. The realisation by many organisations that they employed too many people. A consequence of this was that labour-intensive organisations were very vulnerable. Also, a realisation that things would never be the same again – in a few months the world of work had changed forever.

Further detailed studies are required to examine the percentage increase of productivity from home workers. This needs measurement rather than information from self - reporting surveys.

The speed of the change that’s happened in under a year has been breath- taking and has affected every part of society. The information currently available suggests that the world of work has dramatically changed. Driven by massive expediential advances in A.I. and due to COVID 19 our day to day working environments and methodologies will have changed forever.

 Large organisations are likely to be the big beneficiaries providing they learn and learn fast using the change to their advantage. UBI will certainly come at some time but that is in the hands of governments and is likely to be a slower process.

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