Humans vs. Machines – The 4th industrial revolution
- Summary of main points

Context

In April 2017, Everis and Blueprint convened an event bringing together business leaders, NGOs and academics to discuss the rise of Artificial Intelligence as a profoundly important emerging issue. Various studies predict that 35% of existing UK jobs[1] and 47% of jobs in the US[2] could become automated within the next 20 years. This advance of AI and robotics not only has implications for business decisions and structures, but also raises extreme challenges for the development and betterment of society. This is particularly true, in light of rapidly changing population demographics and global economies: by 2050, the UK is predicted to no longer be in the Top10 GDP economies of the world.

Blueprint's provocation is to explore how globally-reaching and purposefully-minded businesses can see development in AI and robotics as an opportunity to best serve the common good.

Are we ready for change?

Change towards robotisation is happening rapidly. Software is now evolving faster than hardware, meaning that the majority of the change required is going to be mental and behavioural rather than physical, in order to adapt. Change may happen faster than people are able to re-educate or re-skill themselves to maintain employability. This will be particularly prevalent without corporate or government support. A bank recently estimated that 30% of the people displaced through its move towards automation, will not be able to be reskilled or repurposed.

Traditional patterns of work are already changing. Our society is dependent on the 9-5 business model, so if automation is rolled out on the scale that it could be, perhaps it is time to challenge the model of how we work, and utilise robots to help us lead better lives: with shorter working hours and a more balanced life with work.

Multiple studies already demonstrate that millennials are demanding 'change' from the conventional day job[3]: seeking flexibility, purpose and meaning in their work, and a balance between work and life. Several others however, suggest that it is not just the younger generations who seek this change, and that in fact the majority of the workforce are looking for 'meaningful work'[4] and a way in which they can positively contribute to the world around them. Perhaps automation is a way that organisations can help to facilitate and mobilise this shift towards meaningful work.

What's the first step?

Companies are increasingly under pressure to deliver good returns to shareholders and remain innovative within a competitive market. When short-term pressures such as these rule the world, it

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[1] University of Oxford and Deloitte (2014) Agiletown: the relentless march of technology and London's response.
[2] Michael A. Osborne and Dr Carl Benedikt (2013) 'The Future of Employment: How Susceptible are jobs to Computerisation?' Oxford Martin School/University of Oxford
[3] Deloitte (2016) The Deloitte Millennial Survey 2016 [Online]
[4] Bellis, R. "Millennials aren't more motivated by purpose than the rest of us." *FastCompany* 7th May 2016

is inevitable that AI & robotics are seen as an opportunity to cut costs and reduce the headcount of the workforce. Whilst this approach may appear to be beneficial for immediate financial gain, if taken by the majority of organisations, it would have severe ramifications on unemployment levels and the wellbeing and wealth in wider society. Where companies recognise that social, human and relationship capital are important to their business, then several different approaches can be identified as possible options:

1. Use AI to improve the quality of jobs
Allow the current employees to do less manual labour or repetitive tasks, thus enabling them to have more human interaction with customers or other people [recognised as hard to implement in a non customer-facing environment]

2. Adopt AI to stay competitive initially, and then move to rebuild human capital
Although this approach may well be taken by many, it could result in displaced workers who have not been educated and reskilled enough to re-integrate into the workforce.

3. Talk about people differently
If investors have 'hard' demands to reduce costs, perhaps one solution is to present a compelling 'soft defence' of the need for the business to invest in and build human and social capital, recognising that for knowledge-based businesses, the majority of value is found in intangible assets: in the form of people.

What is the purpose?
We often talk about what tech CAN do, but not what we want it to do. Although there are many firms increasingly talking about the ethics of how tech can be utilised and how it should be used, there are not many discussions occurring as to why we are pursuing this development.

Some key questions to ask when implementing AI:
- What is the purpose of this automation?
- What is tech in service of and what do we do with it?
- When I code, what am I trying to do?

Several instances have appeared recently of robots which have assumed racist and sexist tendencies[5], either as a result of inheriting the culture from their controlling programmers, or because machine learning compounds and replicates past mistakes. The extent to which society is improved or worsened by the appearance of robots will depend entirely on what we teach them. There is a need to understand what purpose we wish robots to have, before we can determine their actions and decision making abilities.

Who has the power?
Currently, a few tech companies have a lot of concentrated power to determine the future of AI. Wider society thus bears the consequences of the decisions of very few people. Although many of these organisations are now regularly engaging in ethical debates, perhaps better decisions could be made via multi-stakeholder groups as the question of 'how far should AI be allowed to go' should not be answered behind closed doors, when only those who stand to profit, and those they recruit to advise them, are involved. Much like developments in IVF, there are debates which would benefit

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[5] Penny, L. "Robots are racist and sexist. Just like the people who created them." *The Guardian* 20th April 2017

from occurring in a public space. Is it purposeful businesses role to create a space in which these open conversations can happen? Equally, what is the right balance needed between public consultation and enacting pioneering leadership?

Not only do these tech companies have the power, they also hold the potential of generating huge amounts of wealth. Widescale adoption of advanced AI is likely to proliferate inequality in all locations across the globe, not only increasing unemployment in zero-growth western economies such as Europe, but in the developing world too. There is no doubt that news jobs will be created: how many and how well paid they will be is not at all clear. It seems very likely that if society wishes to continue to function, more wealth redistribution must occur. Thus conversations about wealth distribution tactics such as taxation and UBI are likely to increase in the near future. Although it is hoped that these imbalances can be lessened via peaceful means, history has demonstrated that violence can be a result. When 50% of the world's population will be under the age of 15 by 2030; an uprising of the youth, against a system which is unable to provide them with meaningful work, is a plausible scenario.

The future

Artificial intelligence is soon set to become active intelligence. Robots can already write code, make music, be creative and make decisions. What is our role then? How do humans continue to be relevant?