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THE FUTURE OF WORK AND SKILLS DEVELOPMENT

An Initial Perspective

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This point of view was written in partnership with the University of Bristol School of Management.

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The Challenge

Shifts such as technological progress, globalisation, an increasingly ageing population and climate change are revolutionising how and where we work. For some this offers unparalleled opportunity, bringing stability, opportunity and a sense of purpose where previously there was none. For others it is unsettling as new business models and external challenges disrupt established industries and profoundly affect the economy and society as a whole. On top of this Covid-19 has added an extraordinary level of uncertainty around what the new “normal” could be. Such is the speed of change it is difficult for business leaders or policy makers, let alone workers themselves, to plan effectively for the future. Multiple questions arise. Globally many are already experiencing a movement away from manufacturing towards services but what will be the long-term effect of AI and intelligent machines? How will more global warming impact our increasingly interconnected economies? What skills will be needed to survive and prosper? How can we ensure a transition agenda that is equitable and works for all? How can we safeguard our lives and livelihoods against future pandemics? Indeed, what are the key challenges for the future of work? These formed the basis of discussion at a recent series of interviews with senior academics at the University of Bristol School of Management, the major points of which are outlined below. The aim is to provide an initial perspective on the future of the workplace which will be further explored in a series of online discussions, interviews and workshop across Europe over six months from September 2020.

The Pace of Change

That work should change is no surprise – indeed the economist David Ricardo was worrying about the impact of "the machinery question" as long ago as 1821. However, the current pace of change is certainly new. The speed of scale being achieved by recent tech unicorns is, for instance, without parallel. There are many perspectives on how this will impact the future of work. Some, pointing to the pace at which robots are being adopted, suggest that over the next decade artificial intelligence, advanced robotics and cognitive automation, the Internet of Things (IoT) and other technologies such as synthetic biology, 3D and 4D printing, will increasingly take on tasks that were once performed by people and that a consequence of this will mean there may not be enough well paid work for everyone to do.[1] An alternative view is that the impact of new technology on jobs is overstated, and that since the global financial crash, any gains in productivity have been achieved largely as a result of intensified or flexibilised labour regimes rather than technical investment. In addition they suggest the pressure to provide immediate returns to shareholders could continue to act as a disincentive for corporates to make the necessary investment in new technologies particularly when labour costs are low.[2]

That said, one consequence of Covid-19 may be that companies accelerate the move towards automation as they strive to protect their operations from future pandemics. A recent EY report surveyed nearly 3,0000 executives and found that 40% are planning to increase spending on autonomous technologies as a result of the crisis.[3]

History certainly shows that rather than destroy jobs, technology is likely to reshape them. But, the transition is likely to be bumpy. In the long term there may well be increased investment in higher productivity and economic growth and the creation of new jobs in yet-to-exist industries. However, short-term, with jobless claims rising at record rates and the world economy shrinking, there is growing concern about the impact any shift towards greater automation may have on workers, particularly those on lower pay. As far back as 2016 Barack Obama's Council of Economic Advisors estimated that 83% of workers in occupations that paid less than UD$20 an hour were at high risk of being replaced. By 2030, as many as 20 million additional manufacturing jobs worldwide could be displaced.[4] This at a time when the WEF has forecast we need to create another 600m jobs to sustain current standards.

It is not just low-skilled roles that will be changed. Characteristic of the new technologies is their capacity to augment and replace tasks within clerical and professional jobs. Intelligent systems will vastly improve the productivity of a range of office-based activities across clerical to professional roles. For some this will reduce the boredom involved in menial and repetitive tasks and enable the use of new 'soft' skills, but others could find themselves in a precarious position as increasing parts of their role profiles are performed by algorithms and machines. Unevenly distributed around the world, or within countries, this raises difficult questions about the potential mismatch between the speed of disruption and the ability of systems to accommodate it. Alongside its effect on the growing levels of economic inequality and political polarisation, there are also concerns about the broader impact of new technologies on skills, wages, and the nature of work itself.

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Globalisation

Coincident with this, accelerated globalisation has lifted millions of people out of poverty and into the consuming class. This has often aligned with a migration from the countryside. The UN predicts that by 2050 68% of us will live in cities - with most of the growth taking place in developing economies, those in Africa particularly. In countries such as Kenya the government is training millions of workers to participate in the human cloud and take on potentially short term tasks such as data entry which previously would have been done by white collar workers around the world. But companies with low-paid workers in emerging economies have undercut their peers in the richer world, so there has a been a major transfer of production in areas such as textiles and consumer electronics with the consequent reduction in the demand for comparatively skilled workers in the West. Alongside this, the technological reshaping of work and the global reconfiguration of manufacturing and production have contributed to a shift of workers in developed Western countries away from the factory floor towards service-sector employment, both in low-skilled customer service work and in high-skilled 'knowledge' occupations.

All this means that for some economies, especially in the US, there is a growing absence of medium skilled jobs. Some point to the "hollowing out" of the workplace as thousands of task-based roles in middle-income jobs are either outsourced or deskilled by technology. They worry that this will lead to accelerating inequality which will only be exacerbated by the economic after-shock of Covid-19.

While certain jobs and tasks are indeed disappearing – paralegals, back-office accounting, pharmacists and call centre workers are just some that are frequently highlighted – others are emerging or growing; think data scientists, genetic counsellors or ethics advisors. Indeed, the OECD suggests that 65% of children entering primary school today will ultimately end up working in areas which currently don't exist.

This presents huge challenges around education. It may be impossible to compete with automation so what skills are needed to complement it? How can we provide workers of all ages with the opportunity to train, retrain and augment their skills base? And, given the emergence of new non-standard forms of work, how can we ensure workers retain an adequate set of employment protections? What will be the role of trade unions for example and how can international bodies such as the International Labour Organisation make good on its ambition to promote decent work for all?

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Ageing

Alongside all this, we can't ignore the fact that our population is ageing. This raises fundamental questions around how to fund retirement. In 2015 globally there were 28 people aged 65 and over for every 100 people of working age. By 2050 this ratio is projected to double. Many are already are working past their traditional pensionable age – some out of financial necessity, others because they are keen to maintain a proactive role. Governments, including those in Australia and Germany are changing the norms as they recognise that neither individuals nor society can fund a 30-year retirement on the back of a 40-year work life. Within this, some older workers expect their experience should command higher salaries, so businesses need to consider ways to reduce the premium for long tenure. The International Monetary Fund (IMF) reckons ageing societies have the potential to slow economic growth by as much as 3% by the middle of this century, while also increasing the strain on the welfare state.

Keeping people in the workforce is the obvious solution but they will need support to develop and build new skills. The OECD reckons around one in three 55- to 65-year-olds lacks computer experience or cannot pass technology tests. Such deficits in digital skills can be tackled with proper training, organised by the government, companies or silver surfers themselves but, given the overall squeeze on jobs, expect discrimination in both retention and recruitment to be an ongoing challenge.

Those who cannot work must be looked after. However, many countries already faced a severe shortage of care workers even before the pandemic. Technology may well help to alleviate the pressure and allow doctors and nurses time to focus on human elements of healthcare – compassion, empathy and emotional support – albeit how to pay for this is a growing concern. One solution is to encourage those from a declining sector to retrain as nurses. However, this sort transition is not easy. True, as jobs change people will be forced to adapt. But some may be unwilling or unable to do the work which becomes available. Those who had skilled careers in manufacturing, for example, may not want to do comparatively low-income healthcare work.

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Environmental and Ecological Crisis

Environmental and ecological degradation is having a profound effect across all sectors. For organisations in the private, public and not-for profit spheres this can be inextricably linked to strategy, risk, opportunity, financial performance and shareholder value. Its impact raises fundamental questions. Is it right to encourage over-consumption? Is globalisation the correct approach? Is the shared vision of a generative, restorative and net-positive economy in need of systemic changes to allow the scaling-up (of existing, promising) practices and transition through transformative strategies?[5]

Research suggests three unifying dialogues surrounding organisational impacts on the environment focused on "productivity and innovation", "corporate citizenship" and "economic resilience". A major theme is a preoccupation with efficiency strategies to confront the challenges presented by a linear (and, arguably, unsustainable) economy, which inadvertently serves to preserve its own existence. These strategies are concerned with reducing harm, abatement, end of pipe solutions, doing more with less and minimising the negative impacts of the existing industrial systems. They have been collectively termed as a mode of incremental reductionism that maintains the supremacy of the status quo.[6] Promising practice is out there, and we now need to address institutional and systemic issues for scaling-up and transition to low-carbon existence.

Some believe that we are experiencing a period of fluctuation and that we are part of an evolving industrial system in which business, civil society and government are experimenting with different transformational strategies to advance environmental and societal well-being. As leadership shifts and many re-evaluate their priorities, we may see a new way of thinking about the economy and new policies and institutions to tackle climate change and guard against future pandemics. Others see that the Covid-19 crisis has presented a unique opportunity to pair economic recovery action with climate action which, if successful, will ensure that economies can recover stronger than before while simultaneously reducing emissions.

Again, the effects of the growing environmental and ecological crisis will be unevenly distributed across and within different regions but the working poor, those in the informal economy, seasonal and casual workers, the self-employed, micro and small sized enterprises are seen as some of the most vulnerable; indeed the UN estimates that by 2030 as many as 80 million may be lost due to climate change alone. Longer term however, most studies show that a transition to a low-carbon economy may ultimately lead to a net increase in employment overall and new skills and industries are already developing, the speed of change and number of jobs created still depends on the extent to which nations are prepared to invest in greener products and services.[7]

China is at the forefront of much green innovation boasting the world's largest renewable energy job market with 3.4 million working in the industry. In the US, where, in some areas, there is still considerable scepticism about climate change, the solar industry alone has been generating jobs twenty times faster than the overall economy. At the same time as jobs are being created some, such as those in energy intensive and polluting industries, will be transformed or eliminated.

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Flexible Working

On top of all this Covid-19 is dramatically changing working norms and has propelled new technology across all aspects of working life. For those used to an office environment, remote working has suddenly become a reality. Adapting to this is not necessarily easy – interruptions are more frequent at home and often workers find it difficult to create routines and build networks that drive creativity.

In some ways, however, this is an acceleration of an existing trend. Many nations were already seeing growth in new non-standard forms of employment. Looking ahead expect more people of all professions to join the on-demand or gig economy. Although originating around the supply of food, couriering parcels or providing taxi rides, increasing unemployment and a likely rise in the number of project-based options may well shake up careers in the white-collar world. This could become the new normal for many. Even before the crisis a study from UpWork and the Freelancers Union in the US estimated in October 2019 that annual income in the US freelance economy totalled nearly $1tn and, significantly, for the first time, in six years of such studies, the majority viewed their work as a long-term choice rather than as a temporary option.

Businesses are now becoming flexible too. Many younger workers, particularly those who are higher earning and technology literate, prefer to set their own schedules. Independent workers are increasingly choosing to offer their services on digital platforms including Upwork, Uber, and Etsy and, in the process, challenging conventional ideas about how, when and where work is undertaken. Even before the pandemic the number of digital nomads who, rather than limit themselves to a 9-5 existence, choose to work where they can find the best Wi-Fi, was growing. Increasingly companies are supportive - even pitching their remote workers "delocation packages" to move away from overcrowded urban cities.[8] Some countries, especially in the Nordics, are also keen to encourage them. Estonia is one of the first governments in the world to offer a digital visa for the purpose of remote working.

Looking ahead, although anecdotally "gigging" began as something that young people do, in many ways it may suit older people better. They may be more content to work part-time, are not looking for career progression and are better able to deal with the precariousness and timing of such jobs. This is good news for companies as they can keep a smaller core staff of regulars and augment the team when needed.

And there's the rub. Online labour platforms have now become important players in the marketplace and have transformed the traditional employment relationship.[9] A key point of contention is the classification of gig workers as independent contractors or employees. Hidden beneath the claims of autonomy, is the fact that online platforms exercise firm control over most aspects of fees, how, and to what standard, work is done. In addition, most don't cap the number of freelancers who work on any day so the market can be flooded, and earnings slashed. Rather than give workers freedom to work any time anywhere, this can mean they have to work intense, unsocial and irregular hours in order to meet client demand. Oxford academic Jeremias Prassl suggests that these problems are driven by firms "presenting themselves as mere intermediaries rather than powerful service providers…. to shift nearly all of their business risk and cost onto others".[10] It is certainly hard to disguise the fact that the gig economy's rise has been accompanied by a fall in the fortunes of working households – which now comprise 58% of those below the official poverty line; the figure was 37% in 1995.

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The Policy Challenge

How then can we ensure there is flexible work without denying workers basic rights? For policy makers regulation is increasingly difficult given the international nature of the market. In the absence of effective controls, it has been left to the goodwill of transnational corporations, some bound by shareholder obligations, to bridge the gap. But businesses can only compete fairly if employment rules are equally applied and consistently enforced which means many policy makers must step up. One possibility, now gaining traction, is the adoption of a universal basic income (UBI). Supporters suggest that this could help reduce some of the excessive inequalities of wealth, reduce financial insecurity, particularly for gig workers, and, as evidenced by pilot projects in Madhya Pradesh, India, and Stockton, California, help poorer people to gain control over their debts.[11] Detractors argue that in reality it could have the opposite effect and "embalm relations as they are" by unintentionally stymying the bargaining power of workers and disincentivising employers from investment in automation.[12]

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Reskilling

It is simply not possible to weather the current technological revolution by waiting for the next generation's workforce to become better prepared. To date, educational systems have not kept pace with the changing nature of work, resulting in some employers saying they cannot find enough people with the relevant skills. Too often the future for which students were asked to prepare did not arrive, and there is a danger the same will happen with the futures we are told are before us this time too.

Some propose that this can be addressed by a shift away from front-loaded education systems to ones where learning is more evenly distributed across a working life so skills can be continuously updated in order to match our changing requirements. Rapid reskilling is needed. This requires much shorter interventions and a different system to recognize those skills; expect microcredits to replace traditional degrees in many cases. These can be accumulated over time. A question recently a question recently raised in a Singapore discussion on the future of education was 'what could a 20-year degree look like?' – the view was that individuals will dip in and out of education when best suits their career development and shifts.

In addition to how to learn, what we learn will also change. Rather than teaching how to do routine tasks for jobs that may not exist for much longer, the focus should be on acquiring those skills that computers cannot do. As the world recovers from Covid-19 it may retreat into more national forms of capitalism. Production may become more localised so there may be a greater requirement for skilled workers in engineering and associated trades. At the same time, alongside improvements around STEM, a greater focus on soft skills may be necessary and we may see a new emphasis on creativity as well as critical and systems thinking. Business collaboration is vital here. Furthermore, policy makers could do more to ensure that, despite the expense, training is accessible for all – often it is only available to employees and depends on job tenure so therefore exacerbates those who are already excluded.

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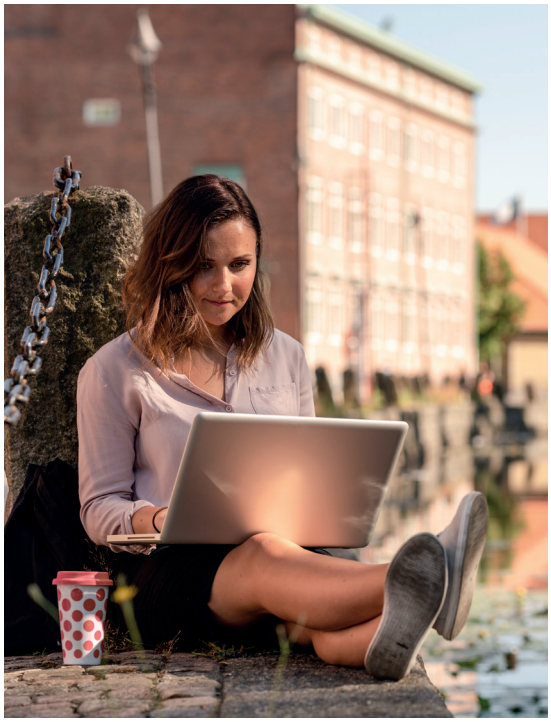
A Motivation to Work

In parallel it's important to remember that many people aspire to something more than just a salary as a motivation to work. For example, they want to do work that allows them to feel personally valued or that makes a wider contribution to society. There is still a lot to be done to give employees a greater say over the quality and conditions of their work, but those that are able to wield a choice over their careers may also want the organisations they work with to have a mission and purpose they believe in and make a positive contribution to society.

In the past few years there has been a noticeable shift towards this position as more companies have evolved from a pure shareholder value/financial targets business focus to a broader view of wider social/environmental impact and influence. Notably this view has been recently publicly articulated by Larry Fink, CEO at BlackRock, which with $6.3tn of assets under management, counts as the biggest investor of them all. He contends that companies without a social purpose fail to make the investments in employees, innovation and capital expenditures needed for long-term growth. Although the shareholder-driven search for short-term growth makes it hard for some to address this, research by the likes of George Serafeim at Harvard Business School supports this; he has shown that companies seriously committed to a purpose outperform their peers.[13]



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Covid-19

The pandemic has accelerated trends that were already beginning to take effect – most obviously increasing levels of underemployment and the number of those who are dependent on part time work, the gig economy workers and zero hours contracts. Widespread adoption of remote working will likely have a huge impact on our built environment, particularly within city centres, local communities and for our transport networks. Expect a reconfiguration.

We may also see slowing urbanisation as a lack of opportunity discourages migration and the latent fear of contagion adds to the downswing. Philosophically, capitalism itself may be transformed as governments prop up weak firms with subsidised loans, raise higher taxes and call for a new social contract to which business should adhere in order to justify the support it receives from the public purse. Also, when job subsidies and other supporting measures expire, the business case for greater automation may finally correspond to the sometimes-exaggerated claims we have seen in recent years, such as the technological substitution of jobs accelerating to a previously unviable and unprofitable extent in order to better ensure social distancing.

At a time when the consumer is cash-strapped and the use of robotics is becoming mainstream, some governments may consider adopting a form of UBI. Most likely there will be a re-evaluation of the jobs which offer real social value, such as those designated as 'key' to social and economic life such as delivery, health, maintenance and care, and, possibly, a subsequent change in remuneration for workers with collective bargaining power. In manufacturing several global supply chains may be replaced by more regional, consumer-oriented supply webs and networks and the faster adoption of digital marketplaces and 3D printing techniques.

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Core Questions

As we look to explore the future of the workplace in more depth some of the issues raised need further evaluation. What will work be in the rest of the 21st century, what is an employer and what is a career are three fundamental questions circumscribed by the legal complexities of the emergent gig or platform economy. It is clear there still will be work, but, given the social and economic challenges around us, what are the best skills to acquire? What of the artists, creatives and musicians – will they drive consumption, even with the difficulties the sector faces in the wake of Covid-19 and the increasing insecurity of creative lifestyles with the rise of the platform? And, in a society where inequality is rife, how do we cater for those left behind? Must we simply accept and adjust to the inevitability of there being a 'left behind', or seek to regulate and constrain the economic and technological tendencies set in train by contemporary events?

Clearly there is a role for us all to play here. Policy makers can encourage companies to invest in human capital through tax benefits and other incentives; companies can add their support through better training and, as far as possible, individuals can learn to be more flexible, engaging with technology as it evolves so they remain in work, albeit in a different way.

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