

Facing the Digital Transformation: Emerging Labour and Skills Shortages

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Abstract

This paper is the sequel to an earlier one entitled *Work and Employment in the Information Economy: Deep Transformations with Polarising Spatial Outcomes*. Both address the question of what the labour market looks like under the digital transformation. The focus of this one is on skills shortages; the background context for their emergence and the challenges for businesses. It was triggered by an OECD LEED Conference in Antwerp whose title was *Right Skills, Right Jobs, Right Places*. What captured the attention here was the opening claim that; “45 percent of companies were finding it difficult to find the right talent” and that the place to look to fill this gap was among the *inactive population*. This represented a sharp contrast to the endless copy of the recent past expressing concern about the job displacing prospects of the new technologies of the digital (AI) revolution and the depressing prospects for workers in certain sectors. It appears that in the short term the digital transformation is presenting serious challenges for business wanting the right workers as well as for workers wanting better jobs. The argument of the paper is that this seeming paradox has a basis in the structural re-composition of a labour market. An increasing share (25-30 percent currently) of the jobs available are in the low pay, low skill, platform jobs segment and more widely across the board workers are “busy” just seeking sufficient income to pay their bills after a decade of flat wages. There is an important geography to this with some places becoming increasingly drawn into a low skills trap where the prospect for job progression is broken and where expecting people themselves to upskill for the new world of work is naïve. The economy may suffer a loss of future competitiveness as “busy” workers are locked out of the opportunity to capture the different kinds of skills that the digital economy needs in the national interest. Simply telling employers in these sectors to “pull their socks up” and provide the competences they need from among the inactive betrays a failure to grasp what the radical transformation of the world of work looks like. Allowing the market forces of the emerging platform economy strongly to condition the future skills profile of the nation is something that needs to be closely examined.

Waking up to a changed world

The argument of a precursor to this paper (*Work and Employment in the Information Economy: Deep Transformations with Polarising Spatial Outcomes*) was that, as we begin the new decade, we are entering *dangerous new territory* (see <https://www.peter-loyd.co.uk/papers-and-blogs/>). What lies in front of us, is a transformation potentially so fundamental that we may need to start re-thinking the whole basis of work, opportunity and well-being for a substantial segment of the population.

It is probably true that, as the Fourth Industrial Revolution proceeds, the “shock of the new” – particularly with the development of AI and robotization – will probably see more jobs created overall than are lost (EPSC, 2019). However, on the way to this better world, we should be concerned here and now about three things. First, we will have to pass through some really significant *short-term disruptions* to employment and well-being where the gains and losses play out in greater extremes from group to group and place to place. Second, and very much part of the first, the labour market itself will undergo a deep transformation that will change the experience of work and the rewards that come from it for very large numbers of people. Third, there is an argument that labour and skills shortages will play a significant role in the way things turn out. The new technologies will continue to offer all sorts of new possibilities for us - but it is to the politico-economic system through which they are appraised and selected, valued and deployed that we need to look to see how things emerge – short and long term.

As ever, the core question will be the one about “in whose interests” those critical choices are made and these will be as ever a contested terrain (Kenney, 2016). Change – even hyperchange – will provide the dynamic context against which these decisions will be made. We are leaving behind a world of relative stability (though it may often not feel like it) where we operate on the basis that we believe we know the broad answers to the questions for a largely accepted system – Capitalism. Looked at through the contemporary lens, our accepted economic theory of self-adjusting markets tending toward equilibrium conditions looks like the 18th Century construction it is. Capitalism has become and is becoming something else as it dynamically transforms (Eric D Beinhof, 2006).

The purpose for this paper is to do some thinking about potential labour market outcomes under this dynamically transforming system. (We could probably begin by raising an eyebrow at the term labour “market” to ask what the idea of a market for labour does or does not tell us about today’s world of work). The concerns to address are those we have to face in the short term but – calling it the “world of work” – what do we need to be thinking about for both the short and long term to make sure that what emerges is not only economically but also socially, politically and environmentally sustainable. Simply hanging on to the stabilising remedies of the last five decades is not going to work.

Let us begin by floating three trial balloons to give weight to the argument that whatever we do, we should move with a sense of urgency.

1. Could it be, perhaps, that for some people in some places, the whole idea of a route to the good life through access to stable, well paid and progressive jobs is coming into

question - even if people strive to improve the skills they can offer? Are a substantial number of these citizens in some groups and in some local places right in beginning to wonder just how they and their offspring are going to find decent jobs at all and is this damaging the established basis for social consensus?

2. Wider than jobs, are we faced with conditions for some groups and for some places that will “upend the conditions of everyday life” in all its forms? As the effects of the transformation run through - working from jobs and wages onto the distribution of wealth and life chances – is there a danger of the political landscape transforming faster than the economic one? Are we already seeing this with geographically widespread moves toward tribalism, nativism and the politics of the far right? Will the instability this causes be a factor in determining how the dynamism of the technological revolution actually works out in practical terms? (More surveillance; less consumer protection might be a simple example)
3. Paradoxically, while these conditions might be emerging with disturbing social and political consequences, might it also be the case that the jobs that do emerge will become harder to fill in a digitally transformed economy where businesses are being held back because they cannot find the workers they need? Is there a serious disconnect between the skills most people seek to acquire and the availability of the broader competencies that the new world demands? Are numbers of people beginning to believe that the high-level jobs of the digital transformation are “not for them” and that the other kinds of available jobs are those where it is not worth them investing in time and money to upskill?

The new world of work

The new world of work under the digital transformation is, of course, already with us and we can see some of its features (McKinsey and Company, 2019); (Frey, 2019); (Osborne & Frey, 2017); (World Economic Forum, 2018); (OECD, 2018) The earlier paper to this one goes to some lengths to show how substantially jobs and work contracts have already changed. One of the prominent features is that employment numbers are continuing to grow. More and more working age people are finding employment. Governments are quick to make their electorates aware that this is the case. However, they are less keen to publicise the fact that wages (except for a select few) have been largely flat since the crash of 2008 (Clarke & Bangham, 2018). Below the visible waterline of the nationally provided data on “employees in employment”, jobs are unbundling and being “in work” means something much more complicated – short-time, part-time, zero hours, discontinuous and sporadic are qualifiers for jobs that make simple full-time equivalent headcounts much less meaningful (Coyle, 2017).

The experience of work itself is undergoing very dramatic change. For a large and fast-growing proportion of the working population, platform work conducted through the internet and a remote relationship with the employer is becoming the standard way of working. Non-standard jobs are rapidly becoming the new standard. Now, around 30-40 percent in most advanced economies (Wallace-Stephens, 2019). Add to this the way the new technologies in

the workplace are changing the nature of the experience of being “in work”. There is an intensification of the processes of work – faster, more routinised, controlled by digital algorithms and dashboards, closely measured to meet efficient performance standards (Hagiou & Wright, 2019); (van Doorn, 2017); (Harris, 2017). The principal technologies are designed to smooth the flow rather than to give the workers any agency role (a visit the local Macdonald’s gives an easily available sense of what this looks like).

Along with this, the feature known as “hollowing out” is still continuing to see those jobs that had stable, well-paid and progressive work paths disappearing from the traditional occupational hierarchy (Störmer et al., 2014); (Mcintosh, 2013); (Peat, 2016). By contrast, of course, jobs for those with the in-demand skill set for the digital age (software designers and engineers and coders for example) are expanding - but the absolute numbers are much smaller. Workers here can exercise their bargaining power to capture high wages and premium working conditions and have substantial agency in the job market. Elsewhere workers have less power than ever to negotiate their contract terms (Adams, Freedland, & Prassl, 2015); (Codagnone, Matthews, & Karatzogianni, 2018). Of course, there is much more going on in these trends than the effects of the digital transformation. They have been emerging for decades and cannot be put down solely to technological change. Inadequate demand as industrial capacities have spread out across the world alongside an over-accumulation of capital have seen a general fall in growth rates. It is significant that a shifting bias of most work toward service activities has been the backdrop against which the entry of new technologies has been taking place. Against this background the productivity needed for all the reap the benefits of the economy has also been flat or only slowly growing (Allen, 2017).

Running this across the trial balloons floated earlier, there are clearly winners and losers under the work arrangements for the digital transformation; being played out against a context of slow overall growth. For the losers, what we are seeing is that their participation in the world of work is being powerfully affected by the process of deep transformation going on in the labour market. They are for the most part “in work” and “working hard”- but in a context where “doing well” has not resulted in more than piecework gains in income and poor prospects for progression. For people in this situation, the call to spend their time and money in acquiring higher level skills might look unreasonable or even irrational – that is even if they could find the time to get off the daily survival treadmill to take it on board. The promise of a way out through investing in personal upskilling can look false – especially where the local labour market they live and work in has little else in the way of variety or a pathway to better quality jobs (Froy, Giguère, Meghnagi, & Arzeni, 2012).

They could always look elsewhere for work but, as the earlier paper pointed out, moving from home to find a more expensive domestic situation while being presented with not much more than a wider selection of similar jobs with the same lack of progression would make relocation look equally implausible. *Stay, cope and be increasingly frustrated and alienated* would be an outcome easy to predict under such circumstances. It appears then that in the new world of work there will be people and places that suffer the downside (plus *ca* change) but by contrast with the past this is *while workers are in work* rather than unemployed. Interestingly, in relation to our third trial balloon, what this also means is that the traditional “pool of the unemployed” that employers can look to when they have jobs to fill is no longer

present. So, it seems that under current conditions we can have something that looks like full employment alongside employers finding it difficult to recruit – normally the features of a boom. But growth is slow and wages rates flat and poverty and inequality are on the rise.

Inactivity as the topic of the moment

Following on from the above, some broader trends are clearly beginning to emerge that are at odds with the norms of the immediate past. One such, is the evidence of a rise of interest not so much in unemployment but in *inactivity* - the condition where people of working age and able to work are not seeking or accepting it even though the jobs are there. This was a topic of considerable interest in the past from the middle 1970s to the early Noughties (Carcillo & Grubb, 2006) when active labour market policy was a key priority for the EU. The basis for State action then was the clear social impact of joblessness on those people and places that bore the brunt of it. In background, of course, there was always the political threat that mass unemployment represented to the established order of the time. We may see this happen again but a feature of the present moment, as outlined above, is that employment numbers are high and unemployment is low and even falling. There has been a structural change in the way the modern labour market is operating. People are in work but work has changed for almost everybody – some for the better (the minor key); some for the worse (the increasingly important feature). By default, but for what we will go on to suggest are more understandable reasons, attention has now shifted toward inactivity (Barr, Magrini, & Meghnagi, 2019).

As an example of this trend, we can use a recent OECD conference in Antwerp ("*Right Skills, Right Jobs, Right Places*"; *OECD Local Development Forum, 10-11 December 2019*). This was dedicated to exploring two sides of the current labour market that are experiencing problems: on the one hand, a demand-side with significant skill (competency) shortages and, on the other, large numbers of what were described as “inactive” people. In the past, the headline focus would probably have been *unemployment* but this time the dominant concern was *inactivity*. As opposed to the traditional pool of the unemployed, it is the pool of the inactive that is being examined as an untapped labour resource. The stark opening statement at the Antwerp event was that “45 percent of companies were finding it difficult to find the right talent”. The key speakers confirmed that both vacancies and employment levels appear currently to be at unusually high levels and that some jobs are becoming increasingly hard to fill.

This is a storyline that provides a counterpoint to a decade of scare stories about how the new technologies will have the ability to destroy jobs. Employers are having a problem with unfilled jobs and with competency issues in the jobs they can fill. They and the major recruitment agencies are coming to the policy table for creative ideas about how to *mobilise the inactive* to fill the gap. More recently the new UK government has followed the same line - declaring that “8 million people between the ages of 16 and 64 were “economically inactive” and could be given the skills to do jobs in sectors where there were shortages” (Patel, *The Guardian*, 19th February 2020). The demand was that business should act on these people “to up their skills and make their skills relevant” to the job market.

We know, of course, that the focus on inactivity is not new in some countries by virtue of their demographic profile. We hear much of Japan, for example, where demographic trends toward ageing are sharply shrinking the available workforce. But ageing is also a particular

concern for the EU - 11 out of the current 28 Member States have more than 20 percent of their population over 65 and the bulk of the remainder are only one or two percentage points behind (Boussemart & Godet, 2018). Indeed, from 2021 the EU population is forecast by the UN to start shrinking in absolute terms. By 2025 there will about 50 million fewer working people in Europe than in 2010. Where ageing is an issue but unemployment apparently is not; the turn toward greater economic interest in mobilising the inactive is easier to understand.

A question put to the conference attendees in Antwerp was; what underpins this level of “inactivity”? Is it a condition of skill – where the people concerned do not have the skills (competencies) needed for the jobs available? Is it an attribute of behaviour - where people (whether or not they have the skills) find themselves in a position where they cannot accept or will not take work? Traditionally, inactivity was seen as the most difficult end of the “not in employment, education, training - NEET” condition - where people were either choosing the benefits system or were, for a variety of complex reasons, discouraged from or unwilling to find a job. Punitive reforms of the welfare system and workfare approaches were premised on the assumption that the problem lay with the incumbents. Can this really be where we have arrived – where what was long regarded as the most challenging element of the “not in work” group is where we need to look to respond to the difficulties companies are facing in getting “the right talent”?

Why the imbalance, are we looking in the right place?

In terms of solutions, the general position at the Antwerp conference was that upskilling through training and "activation measures" would be the best policy pathways to address the problem. This re-states what would have been the standard approach from before the digital transformation. Two interesting questions were posed for participants. On the one hand, why is it that “normal labour market adjustment mechanisms” are allowing such an imbalance to occur (wage rates – the classic adjustment mechanism – hardly got a mention) and, on the other, why this is a situation of particular concern now? An overarching question might well, however, have been “are we really looking in the right place”? Could it be that the talent that employers are looking for is already available but lying underutilised among people already in work doing jobs that frustrate them but happen to be the ones most available? Is it *under-employment* that we should be looking at?

Some questions: have workers with talent become harder to find because the jobs as presented; i) are in the wrong places for people to access them?; ii) even where in the right place do they have attributes that make it harder to fit around life-as-lived by those with domestic and caring responsibilities?; iii) fail to offer pay and incentives that will encourage people already in work to change jobs where new skills have to be learned? and ; iv) Is the problem frictional rather than structural – people and jobs arrayed in a situation where they cannot get to each other? Are we, perhaps, looking at a system change where, for an increasing number of people, the game has become not worth the candle for investing in their own human capital - especially when this involves a skill-shift toward the new technologies where things are continually on the move? (Dellot, Mason, & Wallace-Stephens, 2019); (Bakhshi, Downing, Osborne, & Schneider, 2017). If this is so then there are some profound changes needed to the way we look at education and training and the spatial distribution of work in relation to the distribution of people.

While the current political focus is on draconian rules on benefit to get inactive people into jobs of any sort, maybe it should be reoriented toward making the labour market work better for employers, for those in work and those unemployed or inactive? Perhaps we should move on from grand narratives about benefit dependency and moral hazard and look more closely at the people as a whole as a *pool of talent* – in work and out of work - where the objective is to find the best fit in the combined interests of all - including business?

To meet the skills and competencies gap, we may need to think less about what training should involve and more about what jobs, pay and conditions should look like if they are to succeed in attracting the people employers increasingly claim they need. At the top end of the job market this would be normal for recruitment and retention practice – for employers to “make the job look attractive to the people we need”. It is at the bottom end of the market where; “the job is there and if you don’t want it someone else will” still serves as recruitment strategy - the more so in the platform economy..

Spatially unequal work opportunity

An important feature of this polarisation in the contemporary world of work is that it has a *distinctive geographical pattern* (“Levelling up: how wide are the UK’s regional inequalities? | Financial Times,” 2nd March 2019.). The major cities, university towns and growth clusters are seeing the positive front edge of the change – with the digital transformation throwing up more opportunities at the better end of the labour market. There is a fast-expanding literature on the importance of agglomeration for innovation and creativity in complex systems (Pike, Rodríguez-Pose, & Tomaney, 2016). The dense networks that cities inhabit seem to have the variety necessary to cope with the new conditions and the evidence is that they are thriving (but still with large numbers attached to the low skill, low pay labour market).

By contrast, it is in distressed regions and localities that people are becoming more anxious about the way things are going in terms of the quality of available work opportunity. Changes in people’s day-to-day work-life experience – positive and negative - are coming through from the way the world of work is being refashioned. Jobs and employment contracts are changing quickly in ways the established indicators of employment and unemployment do not allow us adequately to grasp. The rapid rise of platform working and the gig economy is dramatically shifting the shape of opportunity in these areas. For some, this provides greater freedom from the discipline of the fixed workplace alongside the prospect of flexible working (quaintly recognised by the term “gig economy”). But for others, it is seeing contingent and precarious work *increasingly colonising those parts of the labour market that already offer low and static wages*. Scope for progression is generally becoming harder to find and investing in personal skills can appear to have little traction in the most distressed localities (Rodríguez-Pose, 2018). Taking this on board, the earlier claim that “45 percent of employers cannot get the talent (competences) they need” surely has a *very distinctive geographical component* to it.

Skill shortages and inactivity re-examined

Going back to the Antwerp OECD event, then, it may be that we can take a more informed look at why skill shortages and inactivity were key topics. To start with, it seems that the workforce of today is “busy” - but for many this is at the low skill, low pay insecure end of the labour market. Vacancies stand at a high level. The labour market looks tight – at least as

far as the standard employment and unemployment series can tell us. There is a strong likelihood that that employers looking for skills are in one place and the inactive and the low paid “busy” workers looking for jobs are in another. On top of this we need to take on board the demographic fact that the workforce has aged and is ageing fast and that by 2025 the EU will see an absolute decline in the size of its working population. Facing this, turning to the inactive may seem to be a practical proposition. It seems that in many ways we are more *short of labour* than of skills. Withdrawal from the EU cannot but exaggerate the problem for the UK.

From the perspective of skill deficits in general as we go forward into the digital transformation, we need to pay more attention to the shape of the labour market for those *already in work* and this should more strongly inform policy. It was once said of low paid workers on the Fordist production line that they used more skills driving to work than their employers required of them in the workplace. Given what we know about the changing shape of work for around 20-30 percent of the workforce, many people in the current workforce could be described in the same terms (Kelly, 2018). The occupants of many low paid jobs increasingly work to pre-set scripts and routines or to the instructions of hand-held computers - with even less scope for engaging their own minds (Braverman’s mental labour) than the track workers of the past. Call centre operatives, pickers and placers and delivery drivers represent the obvious examples but there are many more. Some see this as the return of a more pernicious form of Taylorism. In jobs like these, the wider potentials of human capacities and skills are largely foregone – *locked away* - while real skill shortages exist, the pool of the unemployed is small and labour shortage is likely to be an ongoing issue.

At the same time, we know that these workers in the increasingly precarious labour market are using what hours of work they can capture to recover a worthwhile income – often from multiple job sources. Between deployments to take on their zero hours contracted work they wait for the call. Where, in this, is the space and incentive for workers themselves – young and old - to *acquire those new skills required* if we are to position ourselves as a globally competitive nation? One of the strong calls from the literature and from the EU and national skills agencies is to meet the challenge of the digital transformation through a strong turn to *lifelong learning*. Right-minded though this is, we need to take account not just of the need to persuade people that this investment will be rewarded but also just how the *time and space* can be found under current conditions for people to engage in leaning. This is non-trivial.

Somehow space and time needs to be cleared – not least in the national interest - for people to take up more opportunities for personal and skills development. This cannot be a matter for the State alone. The shape of the current labour market is producing skills shortages at the same time as lower paid workers are being locked out of taking the necessary steps to meet the new requirements. Business itself has to take some responsibility for where we have come to and join in with a co-design process to change the situation.

Skills policy that is fit for purpose

We can now understand that the spatial level of resolution through which we look at skills shortages should make a considerable difference to policy prescription. All of the following should still apply:

- Make sure that young people come forward with the right skill sets so as to make maximum use of that shrinking asset;
- Take steps to recover from those over 65 and willing to participate, the maximum contribution to the world of work they have a retirement choice to leave behind¹;
- Take steps to reduce frictional unemployment (difficulties in getting workers from one job to another) to the lowest level possible;
- Make sure that the education and training system brings people to the job market with the skills appropriate to the demands that businesses have in needing to hire them;
- Finally, turn to the inactive and “activate” as many as possible into work.

All this is necessary but not sufficient. There also needs to be a prior acknowledgement that the target population for making a *scale change* toward an internationally competitive national skill base will come from those *already in work* in a variety of geographical settings. Continuing to rely on education and training primarily for the young and failing to make lifelong learning a reality for those already “busy” at work will no longer meet the skills challenge from a fast-changing digital global economy. We should, of course, seek to mobilise the inactive but to do that we need to understand that inactivity is a complex condition where personal and household circumstances have a considerable role to play..

More than ever in the contemporary context, projecting these policies through “one-size-fits-all”, centrally directed, approaches to employment, unemployment and inactivity will simply lack the granularity needed to address what is going on. Simply devolving centrally devised training and engagement responsibilities to local and sub-regional players will not cut it. We need to act more locally and in context - while at the same time setting national principles and standards from the top. This is not just about getting skills policy right locally. It is also about finding effective ways to meet the overall needs of economy and society as a whole. We need to take a hard look at the capacities that are needed generally – in work and outside –rather than *waiting for the internet platform businesses to configure the skills of a substantial proportion of the working population* around their narrow-banded needs.

Hanging on to the classical position where we leave it to sectoral analyses and to local businesses to determine what they need in the way of skills and competencies abstracts from the scale and speed of change that the digital transformation is bringing with it. To know what skills might be needed for a sub-regional or local economy demands a *change in policy governance*. A concerted local approach is needed bringing together by as many interested parties as possible to grasp where things are going for both the private and the public realm and what opportunities might exist for which a readily prepared workforce might be built up. Local initiatives to “read” a fast changing and highly complex system of work and employment need to be *co-designed and co-produced* by as wide a constituency as possible and after broad-ranging debate. We need a change in the *mindset and governance of*

¹ This has already happened for women as the new pension age rules have resulted in a rise in women working full-time in the UK labour market.

education and training just as much as we need a better grasp of what is going on in the world of work and how to prepare for it.

Continuing to offer only supply side remedies is not going to be enough going forward. The shape of the demand side has a powerful bearing on the capacity of the economy to raise its skill levels in the face of the digital transition. Where a high proportion of the jobs in the economy is low wage, task driven and one where workers have to use as much of their time as possible at work just to pay their bills, the workforce scope for upskilling is low. Under these conditions, skills progression and lifelong learning can be impaired both for workers and for the economy as a whole. An essential component of skills policy should therefore be to have a position on the *share of the jobs in the economy it is appropriate to have in the low pay, low progression segment*. Allowing the market to determine what this turns out to be can lock in competitive disadvantage at the macro level - with the higher-level skill shortages for business we are already seeing. Business could, of course, respond by raising wages to incentivise workers to add skills and move jobs - but with competitive consequences for internationally configured companies that might lead them to look elsewhere.

A policy to give workers the means to escape from the treadmill of the low pay, low progression sector and give them the basic skill set for the new economy - while mobilising the inactive into a useful contribution - would be a step towards *restoring a broken escalator of job progression*. Turning to the idea of the foundational economy and a key role for social enterprise was an idea developed in the preceding paper and formed a key component of the Antwerp conference agenda. These measures in combination would be critical to give people generally a more positive prospect for the future. Those “short term disruptions” we emphasised at the beginning of the paper require that we act now where we can. The RSA has confronted this issue in a recent publication and makes the helpful suggestion that we should try to; “think like a system, act like an entrepreneur” (Conway, 2017). With concerns about the short term in a “world turned upside down”, it seems that we should both try to grasp the nature of the system – as this paper is attempting to do – but at the same time try to be as creative as we can in tackling the highest priority and doable issues.

Conclusion

What this paper and its predecessor have been concerned with has been how, for a substantial and fast-growing segment of the population, the experience of work has become both unrewarding and alienating. There is a danger to the social consensus where a large number of people in many local places are beginning to wonder just how they and their offspring are going to find decent jobs and sustainable incomes. Connected with this is the problem that, while this is happening in the social sphere, the economy may suffer a loss of future competitiveness as “busy” workers are locked out of the opportunity to capture the different kinds of skills that the digital economy needs. Simply telling employers in these sectors to “pull their socks up” and provide the competences they need from among the inactive betrays a level of naivete about what the modern world of work really looks like.

We appear to have significant skills and labour shortages in a context where the demand for workers with the right skills should be satisfied in the classical formulation by the offer of additional wages and benefits. Yet we have had a decade or more of flat rewards to most workers and an example in the general economy of a tendency towards a “low level skills

equilibrium” (Froy et al., 2012). This ranks as a wicked problem to which practical measures should be directly addressed. The idea of the State as entrepreneur is gaining some significant traction in the UK through the sterling efforts of Mariana Mazzucato and her team at IIPP in London, we are not there yet (Mazzucato, 2018). The State does have the critical role of setting standards, in regulating activities and in representing the expressed electoral wishes of the people. The State has the capacity – should it choose to use it – to declare what wicked problems take priority and to steer the investment process within the rules. HS2 and “Levelling-up the North” are latest manifestations of the use of this power. Since maintaining and extending national (post-Brexit) competitive advantage is a core State objective, taking active measures to *remove current skills shortages and positioning the country to compete* in the critical drive for “next generation” skills should be a cause the private sector will readily support. In Mazzucato’s terminology – having a *Mission for Learning, Skills and Social Cohesion* would seem to have the prospect of considerable support across the board.

Peter Lloyd 4th March 2020

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