Sub-Committee on Education, Skills and the Economy
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Careers advice, information and guidance inquiry

Thank you for giving the Institute of Directors (IoD) the opportunity to participate in this inquiry looking at careers advice, information and guidance, published by the Sub-Committee on Education, Skills and the Economy, on the 8th of December 2015. Careers advice, information and guidance is a significant concern for IoD members. This paper presents the IoD's comments on some of the key issues for our members regarding the future of careers advice, information and guidance.

About the IoD

The IoD was founded in 1903 and obtained a Royal Charter in 1906. It is an independent, non-party political organisation of approximately 35,000 individual members. Its aim is to serve, support, represent and set standards for directors to enable them to fulfil their leadership responsibilities in creating wealth for the benefit of business and society as a whole. The membership is drawn from right across the business spectrum. 71% of FTSE 100 companies and 51% of FTSE 350 companies have IoD members on their boards, but the majority of members, some 70%, comprise directors of small and medium-sized enterprises (SMEs), ranging from long-established businesses to start-up companies. IoD members' organisations are entrepreneurial and growth-orientated, and more than half (57%) export goods and services internationally.

The IoD's position

A recent study by the Bank of England's (BoE) chief economist Andy Haldane assessing the impact of new technologies on the UK labour market has predicted that over the next twenty years fifteen million jobs, or about half of the total, are at risk of being lost to automation.[1]

The Bank's study is just the latest in a long line of similarly harrowing predictions by leading academics and institutions including Martin Ford[2]; the World Economic Forum[3]; Erik Brynjolfsson and Andrew McAfee at MIT[4]; Richard and Daniel Susskind[5]; Jeremy Rifkin of

[1] Labour's Share - speech by Andy Haldane given at the Trades Union Congress, London, 12 November 2015: http://www.bankofengland.co.uk/publications/Pages/speeches/2015/864.aspx
[2] Martin Ford, *Rise of the Robots: Technology and the Threat of a Jobless Future*, (Basic Books, 2015).
[3] World Economic Forum, Future of Jobs report 2016: http://www3.weforum.org/mwg-internal/de5fs23hu73ds/progress?id=wWf3Th0Hw2Uur5wgDulKu6e76V-hzcK-NSrq0551SJU,
[4] Erik Brynjolfsson and Andrew McAfee, *The Second Machine Age*, (W. W. Norton & Company. 2014).
[5] Richard Susskind and Daniel Susskind, *The Future of the Professions*, (Oxford, 2015).

the Wharton School of Business[6]; and Carl Benedikt Frey and Michael Osborne of Oxford University[7]. Technological advances have always altered the nature of business and employment. As new forms of work are added, the skills of some workers are inevitably made obsolete. While technological change has always occurred, two trends set recent innovations apart:

Firstly, previous job-replacing technological change has been confined to tasks that were predominantly physical and/or repetitive; recently, computers have begun substituting for complex cognitive skills. The set of human tasks that machines can feasibly automate has consequently extended beyond those routine 'blue-collar' clerical roles to include formerly secure, 'white-collar' professional roles.

The second trend is the sheer speed of recent change. Moore's Law, the observation made in 1965 by Intel co-founder, Gordon Moore, that the rate of growth in computer processing power will accelerate by approximately twice its speed every two years has been markedly accurate, indicating that not only is this change happening fast, but its pace is likely to increase exponentially for the foreseeable future.

While it is unlikely that the net result of technological change will see a decline in the number of jobs in the long run[8], new technologies will bring significant changes in the nature of work[9] as industries evolve and outdated job functions disappear. The fact that twenty million jobs were lost in Britain between 1980 and 2000 shows that the BoE's prediction of fifteen million automated jobs would not be unprecedented. However, the lesson for government from the lay-offs of the 1980s and early-1990s is the importance of enabling those people who have lost their job to re-skill in order to find alternate employment and fill the new jobs being created.

How the labour market incorporates and adapts to new and emerging technologies will therefore depend on employers' and policymakers' ability to facilitate re-training and life-long learning. If the pace of adoption of technology does accelerate as predicted, careers advice, information and guidance service providers will need to prepare. Supply side policies will be key if workers are to navigate the era of automation[10]. The way in which these changes increasingly reward particular skills suggests that education and training are of vital importance. Global labour markets are already experiencing difficulties as the number of workers with the requisite skills struggles to keep pace with employers' needs. This gap between supply and demand is evident among IoD members, 38% of whom say their organisation is suffering from an inability to find a suitable candidate to fill an existing vacancy.

More worryingly, two-fifths (42%) of the IoD's start-up entrepreneur members (the IoD99) said they have trouble hiring people with the right skills, making it their number one barrier to growth. These members are more likely to be working at the cutting edge of technology, in areas that are niche right now but which will become the mainstream if allowed to

[6] Jeremy Rifkin, *The End of Work*, (Tarcher, 1996).
[7] Carl Benedikt Frey and Michael Osborne, *The Future of Employment*, (Oxford, 2013).
[8] James E. Besson, How Computer Automation Affects Occupations: Technology, Jobs, and Skills, November 13, 2015, Boston Univ. School of Law, Law and Economics Research Paper No. 15-49.
[9] Michael Chui, James Manyika, and Mehdi Miremadi, *Four fundamentals of workplace automation*, McKinsey Quarterly, November 2015.
[10] Government Office for Science, *The Future of Manufacturing: A new era of opportunity and challenge for the UK - Foresight Summary Report*, 2013: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/255923/13-810-future-manufacturing-summary-report.pdf

develop. The push to teach children digital skills, like programming, at school is part of the long-term solution, but another significant element is career guidance. The '40 year lag effect' between the experience of parents and teachers when entering the labour market 20 years ago, and the realities of the labour market 20 years from now when their children and students enter the workforce is a well-known problem. The UK leads the world in tech companies and 12.4% of UK GDP in 2016 is expected to come from the internet economy. Yet many parents and teachers struggle to understand the opportunities for employment in these emerging sectors. Instead, parents and teachers prefer to advise young people to pursue careers in traditionally 'good jobs' such as law, medicine and finance. The opportunities for young people in new and emerging industries need to be better explained to students. A helpful solution to helping students make the right decision for their own careers is work experience, which should become a regular component of education at all levels.

A further challenge will be how businesses engage with employees throughout the coming changes to the nature of the labour market. Preparing workers for the rapidly evolving employment landscape will become increasingly important. A recent survey by the Economist Intelligence Unit (EIU) found that less than a quarter (23%) of employers have devised and implemented a formal strategy to address the potential impact of new technologies on their workforce[11]. Yet many of the challenges that companies' workforces will face in making effective use of new technologies will require strategic directives to overcome. The types of work that businesses are able to offer employees look likely to undergo a radical reinvention in the years ahead. The EIU's findings underscore the need for employers to investigate how these changes in the nature of work within their organisation will affect their workforce, as well as evaluate which jobs provide the best use of humans' unique talents and abilities, and which jobs will require human oversight and decision-making capacity. Working alongside careers advice, information and guidance experts, business leaders need to consider what their workforces will look like in 5, 10, or 20 years from now. They will be required to assess what skills they will need and how they might set about recruiting, developing and retaining suitable workers to reap the benefits and efficiencies of automation.

Many people today, particularly younger generations, will work in jobs that do not exist yet, in industries that haven't been created. Most will change jobs multiple times and brief periods of unemployment, for people at all levels, will become relatively commonplace. While education and training initiatives can help fill potential skills gaps, there is also a need to establish stronger links between the education system and the labour market.

Graduates and school-leavers often struggle with the transition between education and the workplace partly because of poor career guidance in schools. A key issue is the long-term nature of the challenge. An individual starts to make choices in education that will affect the skills needed in their career as much as a decade before they enter the workplace. By this time technology and consumer preferences will have changed significantly. Indeed, a recent National Union of Students (NUS) survey shows that 68% of students feel that age 16 is too early to be making choices which will define their future career path[12]. In the UK schools system, where learner choice plays an increasingly significant role, it is ever more important for young people to access good information, advice and guidance on the likely skills needed by employers in the future.

[11] The Economist Intelligence Unit, *Preparing for the digitisation of the workforce*, November 05, 2015: http://www.economistinsights.com/technology-innovation/analysis/preparing-digitisation-workforce/fullreport

[12] NUS/TUC/Unison, A Careers service for future success: http://www.nusconnect.org.uk/resources/a-careers-service-for-future-success

Employers can offer a solution. Experience with employers, visits to work places, and education and training all help enlighten and inspire. The UKCES Employer Skills Survey found that 66% of employers think work experience is critical or significant when hiring, but only 38% offer it[13]. This is not because schools and businesses do not think employer engagement matters. Half of IoD members engage directly in some form with schools or educational institutions[14]. Instead the evidence points to the practical challenges of linking the worlds of work and education, given, for example, their different timetables, as well as the pressures schools face to prioritise exam results and league table performance over what are seen as extra-curricular activities. Schools are incentivised therefore to prioritise exam learning rather than workplace readiness. The Government's new Careers & Enterprise Company will help, but with an annual budget of just £20m, its work will be very challenging. The Careers & Enterprise Company will require significant buy-in from the business community and Local Enterprise Partnerships if it is to be successful and have a real impact. This is particularly important if it is to avoid the failings of the National Careers Service.

It is a scandal that career information and advice has been so poor up to this point. Half of young people have never heard of the National Careers Service so the relationship between the National Careers Service and the new Careers & Enterprise Company will be important to get right in order to avoid duplicating failures.[15] The two bodies must not see each other as competitors but should endeavour to complement each other's work and fill the voids where the other cannot. Furthermore, too many schools confuse teaching students how to write a CV with genuine, tailored, careers advice. Insufficient consideration is given to the knowledge that each young person needs to self-manage their career beyond their first employment.

The existing careers system is very geared towards pointing young people to a 'specialist' fixed point, with the expectation that a career will evolve naturally and securely once an individual is employed for the first time in their specialist area. This approach, however, is outdated. The 'job-for-life' is in decline and consequently expectations of career-long specialisms are misplaced. Nevertheless, while the Careers & Enterprise Company is a step in the right direction, the Company can only solve part of the problem. Government must be more committed and pro-active in providing high-quality, independent, face-to-face advice, careers information and guidance to all students studying at school or college.

A related concern is that of vocational training. The UK currently has a clear delineation between the two types of study typically available to students: academic or vocational. While this may have been appropriate 50 years ago, it is totally unfit for the modern economy. Not only has it resulted in a stigmatisation of many types of vocational training as second best, it has left those taking the more academic routes often ill-equipped for the world of work. The phrase "parity of esteem" was popularised more than a decade ago in the Tomlinson report but it means little more now than it did then and many IoD members have concerns about the level of impartiality of careers advice offered within schools. One major concern is reluctance by schools to recommend courses, such as apprenticeships, that would mean losing students, particularly those they consider suitable for university. A recent survey by the National Foundation for Educational Research (NFER)

[13] UKCES Employer Skills Survey 2013: https://www.gov.uk/government/publications/ukces-employer-skills-survey-2013

[14] IoD Policy Voice members survey, August 2015: http://www.iod.com/influencing/press-office/press-releases/gcse-results-put-business-skills-at-the-heart-of-school-education

[15] NUS/TUC/Unison, A Careers service for future success: http://www.nusconnect.org.uk/resources/a-careers-service-for-future-success

reported that 65% of teachers would "rarely or never advise a pupil to apply for an apprenticeship"[16]. Part of the reason for this is that schools are ranked largely by how many students they get into university – not onto apprenticeships or into good jobs. That needs to change.

Once in a job, there is also a need for career guidance, information and advice to support in-work progression. Today's record employment figures hide the fact that over recent decades it has taken many people longer to progress in their careers. Office of National Statistics figures indicate that about 30% of graduates are still in graduate entry-level positions five years after graduation. Poor in-work progression stifles employees' careers and as a result they take longer to reach their earnings and productivity potential. In the private sector, companies need to foster not a career ladder but a career lattice where employees can grow by doing a range of different roles, gaining experience, developing new skills, and tapping into alternative networks. This will help them acquire a portfolio of transferable skills, benefitting both themselves and their employers.

Independent recruiters and career guidance councillors must develop a focus not simply on helping people into the world of work, but also begin offering post-employment support. Assistance should be offered to employees throughout their working lives via high quality, tailored, in-work careers advice and job-matching services. Information about education and employment paths and a comprehensive understanding of the labour market (both as it exists today and is likely to exist in the future) will enable people to take the appropriate strategic steps along their career journey.

As the workplace changes, education and training must adapt so that employees and job-seekers can keep pace with market demands. Strategic relationships between employers and training providers will be vital to ensuring that the right skills needed by business for a rapidly evolving environment are developed and delivered. This means enabling employers to take a greater degree of leadership and control of the education and training system. Structural changes in the labour market are already making it difficult for young people to get into work and progress. Newly emerging commercial fields are only likely to make this worse by creating even bigger skills vacuums that arise at rapid speed, outpacing the ability of individual organisations to respond. Businesses that can't access new skills or fail to compete with those that can face being left behind. That's assuming they survive at all. To ensure an effective response, businesses will need to collaborate, perhaps on an industry-wide scale. Government will therefore have an important role in facilitating and supporting these processes.

As technology alters the demand for skills, workers will need to reallocate to tasks that are not susceptible to automation. Various examinations of the tasks that computers are unlikely to be able to perform suggest general behavioural and non-cognitive 'soft' skills necessary for collaboration, innovation, and problem solving such as resourcefulness, creativity, abstract reasoning, and emotional intelligence are the likely domains where humans will retain a comparative advantage. That is not least because these are skills where computers complement our abilities rather than supplant them. Even though today mobile devices, online social networks, and high-speed wireless broadband make communication over vast distances possible at almost zero cost, face-to-face interactions are still the key engine of innovation, collaboration and growth. Yet these soft skills are the very skills IoD members say current school-leavers and graduates lack most. Indeed in our May 2015 Policy Voice survey the shortage of soft skills was the number one barrier to

[16] National Foundation for Educational Research (NFER), *Changing attitudes to vocational education*, November 2014: https://www.nfer.ac.uk/publications/99947/99947.pdf

growth cited by members, ahead of things like the state of the economy; taxes and regulations; and access to finance[17]. Two-thirds (68%) were worried specifically about poor communication skills, 35% said team-working, 36% listed resourcefulness as an issue, while 22% cited a lack of creativity as a concern[18].

Today's schools and universities are dominated by approaches to learning that are fundamentally individualistic and competitive in nature. Beyond the recent introduction of coding and computer programming to the schools' curriculum, the education sector must be redesigned to focus on learning to learn and acquiring the skills and experience needed to collaborate with others. Too much emphasis on exam performance at the expense of other developmental activities such as the best form of career guidance, that is first-hand experience of the workplace, has seen the number of 16-17 year olds with a Saturday job decline from almost half twenty years ago to less than 18% today. Uniquely human skills, like being able to work in teams, manage relationships, and understand cultural sensitivities, are vital for businesses across all sectors and must become a core component of future generations' repertoire. It is clear that our education system will need to adapt by providing training that places more emphasis on developing these abilities in students, moving beyond the current rote-learning exam focus to more group based projects, in-class presentations, and team-working exercises. Of course good grades will continue to be important, but we shouldn't confuse qualifications with competencies and workplace readiness, particularly for future generations who are going into a labour market that is far more fluid and entrepreneurial.

Another factor to consider is demography. British people today are living longer than ever before and consequently many are choosing to remain in work until later in life. The number of people over the age of 65 in employment today stands at over one million[19], meaning the UK now has the 7th highest employment rate of persons in their late-60s in the OECD[20]. Retiring abruptly rather than gradually is increasingly becoming a thing of the past. This shouldn't come as a surprise. Recent studies in the *BMJ*[21] and *The Lancet*[22] have shown that the proportion of life spent in good mental and physical health is increasing in Britain, even as life expectancy continues to rise. Individuals will have to take ownership of their careers, but there is also an onus on employers to provide on-the-job careers guidance, training and apprenticeships to boost the skills of an older workforce. Workers nearing what would traditionally be seen as retirement age will increasingly seek to reduce their hours while still remaining engaged in the workplace. This will mean the skills of these workers are available to companies for longer, although businesses will have to adopt employment flexibility to accommodate the needs of older workers.

With government projections expecting one in three babies born today to live to 100, it is important that these people are enabled to pursue continuous education, re-training, and up-skilling throughout their careers so that the option of working later in life remains a

[17] IoD Policy Voice members survey, May 2015
[18] IoD Policy Voice members survey, August 2015: http://www.iod.com/influencing/press-office/press-releases/gcse-results-put-business-skills-at-the-heart-of-school-education
[19] Jeroen Spijker and John MacInnes, *Population ageing: the timebomb that isn't?*, BMJ 2013; 347, 12 November 2013.
[20] Live longer, work longer; The Economist, Dec 3rd 2015: http://www.economist.com/news/finance-and-economics/21679463-live-longer-work-longer?fsrc=scn/tw/te/pe/ed/livelongerworklonger
[21] Jeroen Spijker and John MacInnes, *Population ageing: the timebomb that isn't?*, BMJ 2013; 347, 12 November 2013.
[22] A comparison of health expectancies over two decades in England: results of the Cognitive Function and Ageing Study I and II, Jagger, Carol et all, *The Lancet*, 8 December 2015.

possibility. Worryingly, however, the Universities UK *Patterns and Trends Study 2015*[23] shows how the number of part-time and mature university students - undergraduates and postgraduates – both fell by over a third in the last 10 years. At the same time, numerous surveys show that investment by businesses in in-work training for their staff has declined by between one-quarter and one-half since the 1990s.[24] Education is expensive and at a time when the desire to tackle deficits is so prominent, government and businesses are understandably keen to cut costs. Nevertheless, we need to find new ways of providing training to people already in jobs at much lower cost.

Intensifying competition and market volatility will place a premium on businesses and staff developing new approaches and behaviours, based on flexibility, resilience, collaboration, entrepreneurialism and creativity. Managing this transition will require a significant shift in our approach to education and careers advice, information and guidance. Policymakers need to show leadership and foresight in adapting to the requirements of a rapidly evolving labour market if British workers are to succeed in the twenty-first century labour market.

Thank you once again for giving the IoD the opportunity to participate in this inquiry. We hope you find our comments useful and look forward to further engagement on ensuing policy changes. If we can provide further information on any of the issues discussed, please do not hesitate to contact me.

Yours faithfully,

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[23] Universities UK: Patterns and trends in UK higher education 2015.
[24] Ian Brinkley, *Why don't British Employers invest in their workforces?*, The Work Foundation, 16 June 2015: http://www.theworkfoundation.com/blog/2499/Why-dont-British-Employers-invest-in-their-workforces