Digitalisation and its potential impact on CWU represented roles

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Introduction

“Everyone can enjoy a life of luxurious leisure if the machine-produced wealth is shared, or most people can end up miserably poor if the machine-owners successfully lobby against wealth redistribution. So far, the trend seems to be toward the second option, with technology driving ever-increasing inequality.”

- Stephen Hawking

1. Rapid advances in technology, digital networks and communications devices are transforming the way in which we live and work, with profound implications for the future of jobs and labour standards. There are wide ranging forecasts on the extent to which this new digital economy will create, destroy or displace jobs. However, there is a broad acceptance that many existing jobs will be lost to automation, with predictions that between approximately 3.2 million and 11 million UK jobs are at risk over the next twenty decades. This Research paper aims to provide an overview of some of the thinking on this issue to help inform the union’s view on how digitalisation may affect the jobs of CWU members.

Summary

- Digitalisation of the economy poses a major threat to existing jobs and labour standards.

- Estimates of the number of jobs at risk from digitalisation and automation are wide ranging. A commonly cited paper by Frey and Osborne estimates that 35% of UK jobs are at high risk over the next two decades. A recent paper by OECD researchers using a different methodology estimates that figure to be 10%.

- Forecasts from Frey and Osborne indicate that the risk of automation to the future of CWU represented jobs varies. For example, postal service mail sorting jobs and heavy truck driving jobs are thought to be at a relatively high risk of being automated over the next decade or two, whilst customer service roles and telecoms line installers are thought to be at relatively low risk.

- The increase in unregulated low cost parcel delivery competition, driven by the rise in e-commerce, poses a threat to jobs and labour standards in the postal sector.

1 Huffingon Post, Stephen Hawking Says We Should Really Be Scared Of Capitalism, Not Robots, 10th August 2015, accessed at: http://www.huffingtonpost.com/entry/stephen-hawking-capitalism-robots_us_5616c20ce4b0dbb8000d9f15

2 Using ONS total of 31.59m UK people in work, calculation based on OECD estimate of 10% of jobs at risk.
• The growth of unregulated online crowdsourcing platforms such as Uber has created a new category of worker\(^3\) without basic employment protection, and this threatens to undermine jobs and employment standards in regulated sectors of the economy.

• Observers generally expect digitalisation to lead to a reduction of middle skilled jobs, and a growth in low skilled and high skilled jobs, which threatens to exacerbate inequality.

• Governments in some European countries, including France and Germany, have started an inclusive debate involving unions and other stakeholders on the future of the world of labour in an increasingly digital economy. In contrast, the UK Government’s digital strategy gives no consideration to working conditions or quality of employment in new digital services.

• As jobs are displaced in the changing digital economy, trade unions must think about how they can best protect the interests of workers, including through securing training and skills development; strengthening collective bargaining influence; and ensuring that all workers have access to basic employment protection.

**Current and future trends in employment growth and contraction**

2. The UK Commission for Employment and Skills, a social partnership, has conducted research on short and medium term labour market trends with the aim of informing UK investment in skills. Figure 1 below illustrates the predicted change in employment from its Working Futures project.\(^4\)

\(^3\) Digital or online platform worker

Figure 1: Working Futures: UK Net change in employment 2002 - 2022

Source: UK Commission for Employment and Skills, 2014

3. The Working Futures research illustrates a decrease in middle level skilled jobs (e.g. administrative and skilled trades occupations) and a rise in high skilled and some low skilled work (e.g caring, leisure and other service). This is known as an “hourglass” labour market, which creates a rise in the proportion of both low and high paid jobs and poses major government policy issues with regards to income inequality. The impact of this in terms of job losses and de-skilling also presents a serious concern and a huge challenge for trade unions.

4. Beyond these short and medium term trends, we can expect digital technology to continue to be hugely influential for the economy and therefore employment in the longer term. The prevailing view is that the digitalisation or computerisation of the economy is likely to continue to contribute to the “hourglass” shape of the labour market, but differing opinions exist as to the magnitude of this affect.

5. A widely quoted Oxford Martin paper (Frey and Osborne) on computerisation predicts that 47% of jobs are at “high risk” of automation in the USA perhaps over the next decade or two, whilst another of their reports predicts that 35% of jobs are at high risk of automation.

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5 'Hourglass’ is used to describe a labour market in which middle skilled jobs are in decline whilst demand for low and high skilled jobs rises or remains steady.


They found evidence that wages and educational attainment exhibit a strong negative relationship with an occupation’s probability of computerisation. Another way of looking at this conclusion is that the negative effects will hit the poorest hardest.

6. Andy Haldane, Chief Economist at the Bank of England, estimates that up to 15 million jobs in Britain could be at risk of automation in the coming decades. Consultancy firm Deloitte predicts that up to 11 million UK jobs have a high chance of being automated within the next two decades. Independent think tank Bruegel predicts that 54% of jobs across Europe are at risk from advances in technology in the coming decades, including 47% of jobs in the UK.

7. However, whilst many studies indicate that the impact of digitalisation on jobs will affect close to half the working population, this view is not unanimous. A 2016 OECD working paper by Arntz, Gregory and Zierahn looked directly at Frey and Osborne’s predictions and came to a very different conclusion about the number of jobs at high risk. Whereas Frey and Osborne assess job automability based on occupation, Arntz, Gregory and Zierahn make their estimations based on tasks within occupations. Arntz and colleagues make the case that workers’ task structures vary within the same occupation, and therefore workers are very differently exposed to automation depending on the tasks they perform. They argue that occupations may well be less prone to automation when considering that most occupations contain tasks that are difficult to substitute at least for the foreseeable future.

8. Arntz and colleagues reassessed Frey and Osborne’s findings and concluded that job losses from automation are going to be much lower. Using the task based approach they estimate that the OECD average for jobs at high risk of job automation is 9%. For the UK they estimate 10% of jobs are at high risk compared with Frey and Osborne’s estimation of 35% at high risk. However it is important to note that Arntz and colleagues emphasise that low skilled workers will be most affected by automation. This illustrates that whilst automation might not be as damaging as some predict, it still presents a challenge to social justice.

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8 Cit, Technology at Work v2.0, p59, accessed at: http://www.oxfordmartin.ox.ac.uk/downloads/reports/Citi_GPS_Technology_Work_2.pdf
10 Robots are coming for your job: and faster than you think, the Telegraph, 21 Jan 2016, accessed at: http://www.telegraph.co.uk/finance/financetopics/davos/12113314/Rosbots-are-coming-for-your-job-and-faster-than-you-think.html
11 Digitalisation of the Economy and its impact on labour markets, European Trade Union Institute, 2016, p.24
9. The European Trade Union Institute published a paper in 2016 identifying jobs at most and least risk and new jobs being created by digitalisation as shown in the table below.\textsuperscript{14} Jobs at most risk of automation tend to be those that follow well defined procedures, whilst those at least risk tend to be those that require creative or social intelligence, or a high degree of flexibility and physical adaptability.

Figure 2: Jobs in the Digital Economy

<table>
<thead>
<tr>
<th>Jobs at greatest risk of automation/digitalisation</th>
<th>Jobs at least risk of automation/digitalisation</th>
<th>New jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office work and clerical tasks</td>
<td>Education, arts and media</td>
<td>Top of the scale</td>
</tr>
<tr>
<td>Sales and commerce</td>
<td>Legal services</td>
<td>Data analysts, data miners, data architects</td>
</tr>
<tr>
<td>Transport, logistics</td>
<td>Management, human resources management</td>
<td>Software and application developers</td>
</tr>
<tr>
<td>Manufacturing industry</td>
<td>Business</td>
<td>Specialists in networking, artificial intelligence etc.</td>
</tr>
<tr>
<td>Construction</td>
<td>Some aspects of financial services (e.g. credit analysts;</td>
<td>Designers and producers of new intelligent machines, robots and 3D printers</td>
</tr>
<tr>
<td>Some aspects of financial services (e.g. credit analysts;</td>
<td>Some aspects of financial services (e.g. financial managers)</td>
<td>Digital marketing and e-commerce specialists</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Jobs at greatest risk of automation/digitalisation</th>
<th>Jobs at least risk of automation/digitalisation</th>
<th>New jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>insurance claims and processing clerks)</td>
<td>Health service providers</td>
<td>Bottom of the scale</td>
</tr>
<tr>
<td>Some types of services (e.g. translation, tax consultancy)</td>
<td>Computer workers, engineers and scientists</td>
<td>Digital ‘galley slaves’ (data entry or filter workers) and others working on the digital platforms.</td>
</tr>
<tr>
<td></td>
<td>Some types of services (e.g. social work; hairdressing; beauty care)</td>
<td>Uber drivers, casual odd-jobbing (repairs, home improvement, pet care, etc.) in the ‘collaborative’ economy</td>
</tr>
</tbody>
</table>

*Source: Christophe Degryse (ETUI 2016)*

**The threat to employment standards from online platforms**

10. One of the major concerns arising from the impact of digitalisation on work is the increase in bogus self-employment and freelancing over online platforms like Amazon Mechanical Turk\(^{15}\), TaskRabbit\(^{16}\) and Uber\(^{17}\) in which workers are not protected by traditional labour law.

11. These online platforms give organisations access to an undefined group of individuals willing to solve specific problems or provide services in exchange for payment – commonly referred to as ‘crowdsourcing’. This pits workers in competition against each other, driving a race to the bottom on pay and reward.

12. The growth of online platforms used for crowdsourcing means the risks traditionally borne by companies will be increasingly pushed onto individuals. For example companies using self-employed workers like Uber avoid having to invest in cars, insurance and pensions. They also avoid employment obligations such as the payment of national insurance contributions and the provision of paid holiday, paid maternity and paternity leave and redundancy pay.

\(^{15}\) Amazon Mechanical Turk is a crowdsourcing online platform that matches freelance labour with digital tasks that computers are currently unable to do, such as translation and tagging images. Amazon does not set minimum rates for work which can pay less than $2 an hour and takes a 10% commission from every transaction.

\(^{16}\) TaskRabbit is a crowdsourcing online platform that matches freelance labour with local demand for everyday tasks including cleaning, moving, delivery and handyman work.

\(^{17}\) Uber is a crowdsourcing online platform that matches consumers with Uber taxi drivers who use their own cars. Its legality has been challenged by governments and taxi companies for the use of non licensed drivers.
13. Online platforms have given rise to terms such as the ‘sharing economy’ and the ‘collaborative economy’ which suggest a positive, not for profit approach to this new market for services. However, the reality is that ‘sharing’ generally involves consumers paying for goods or services, and ‘collaboration’ often involves the exploitation of low paid workers with no job security.

14. In some European countries, national courts have applied existing transport legislation to collaborative business models and this has led to the prohibition of those services. For example, Uberpop, which connects clients with non-professional drivers, has been declared illegal by courts in France, Italy, Spain and Germany. Uber was recently fined €800,000 by a French court for running this service, but it has shifted its focus to its service staffed by professional drivers, which now employs around 10,000 drivers in France.18

15. The European Commission recently published a set of guidelines on the collaborative economy with a view to preventing national governments from banning companies like Uber outright, whilst pressing these companies to abide by their duties as employers.19 The TUC welcomed the guidelines because they make clear that sharing economy companies can be recognised as employers by member states. However, the TUC also said the UK must build on this to ensure that every worker in the sharing economy gets a fair deal and full employment rights.20 Other commentators representing the trade union movement have criticised the Commission’s guidelines for making it too difficult for member states to establish an employment relationship between workers and digital platforms.21

The impact of digitalisation and automation on CWU represented roles
16. The broad trends and predictions outlined above help to inform us about the potential impact of digitalisation and automation on jobs across the economy. However, it is necessary to drill down in more detail to understand how the changing economy is likely to impact on the roles carried out by CWU members. These include in particular engineering, technical, computing, clerical, customer service, mechanical, driving, retail, financial and manual roles.

17. The UK Commission for Employment and Skills forecasts trends for some of the areas in which the CWU represents members. Whilst the data included in Figure 3 shows a steep fall in jobs in many areas of employment, the commentary underlying these figures suggests a more positive trend for some specific occupations, which is explained further below.

**Figure 3: UK change in employment for areas in which CWU members work**

<table>
<thead>
<tr>
<th>Broad job category</th>
<th>2002-2012 Net change in employment (+/-)</th>
<th>2012-2022 (projected) Net change in employment (+/-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate professional and technical occupations</td>
<td>+478,000</td>
<td>+583,000</td>
</tr>
<tr>
<td>Administrative and secretarial</td>
<td>-453,000</td>
<td>-486,000</td>
</tr>
<tr>
<td>Sales and customer service</td>
<td>+118,000</td>
<td>-64,000</td>
</tr>
<tr>
<td>Process, plant and machine operatives</td>
<td>-178,000</td>
<td>-214,000</td>
</tr>
<tr>
<td>Elementary occupations*</td>
<td>-238,000</td>
<td>-67,000</td>
</tr>
</tbody>
</table>

* Includes jobs that require little or no prior training such as some catering and cleaning roles

*Source: UK Commission for Employment and Skills, 2014*

**Associate professional and technical occupations**

18. This group, which is expected to see a growth of 583,000 jobs between 2012 and 2022, includes a wide range of occupations from science and engineering technicians, to nurses and therapists. It is therefore not possible to determine from the overall figures the impact on CWU represented roles. However, specifically for engineering and technology associate professional roles, which covers many of our members in BT Openreach, the Commission’s research finds there was a net decline in jobs over the last decade, but that things are expected to pick up as the economy recovers.²²

19. It is also worth noting BT’s own recruitment activities in this area and it is encouraging that the company is taking on more Openreach engineers to upgrade and expand the UK’s communications network. Reports indicate that BT has recruited over 3,000

²² UK Commission for Employment and Skills, Working Futures 2012-2022, ibid, p. 83
It is also in the middle of a drive to recruit 1,000 engineers and more than 200 apprentices before May 2017.24

Administrative and secretarial occupations

20. This group has seen a significant decline in employment over the last decade and is expected to see the loss of a further 486,000 jobs between 2012 and 2022. Secretaries, typists and word processing operators are especially vulnerable to being displaced by advances in computer technology. This may include some CWU members in clerical roles, although it is unlikely to affect a significant number of CWU represented jobs.

Sales and customer service occupations

21. This group is expected to witness a decline of 64,000 jobs overall between 2012 and 2022. However, the group is dominated by sales assistants and check-out operators in retail outlets whose jobs are being replaced by automated checkouts and online commerce.

22. In contrast, customer service occupations represent a smaller but rapidly growing category. The demand for more specialist and customer care occupations is expected to continue over the coming decade. This could represent a positive trend for many CWU members in customer service roles.

23. For evidence in support of this trend, it is worth noting that BT announced in January 2016 that it will create 1,000 additional permanent jobs in its UK call centres, after its Consumer division had already filled an extra 1,000 contact centre roles to help it service more of its customers in the UK.25

Process, plant and machine operatives

24. This group saw a reduction of 178,000 jobs over the last decade and is expected to see a further loss of 214,000 jobs between 2012 and 2022. The group includes a variety of occupations including machine operatives in factories and drivers of mobile plant, passenger and goods vehicles mostly in the distribution and transport sectors.

25. Looking at sections of the group in more detail, the research shows that employment declined rapidly over the last decade for machine operatives linked to the loss of jobs in manufacturing and further substantial losses are expected over the coming decade.

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23 BT recruits more engineers and pledges to speed up connections, FT, 24 April 2015, http://www.ft.com/cms/s/0/ca9c95b4-ea78-11e4-a701-00144feab7de.html
24 BT Openreach makes strong progress on customer service, BT press release, DeHavilland, 19th July 2016
However, there were modest gains for the transport drivers category and little change is expected for this group between 2012 and 2022.

26. Longer term however, other commentators are predicting that driverless vehicles are set to have an enormous impact on the transport sector. A convoy of self-driving trucks recently drove across Europe to the Port of Rotterdam in the first experiment of its kind. Several hurdles still need to be overcome before self-driving trucks are used on the roads, but these are mainly regulatory rather than technical.

27. Given the potential business savings from driverless trucks, some predict that market forces mean they will be introduced even earlier than driverless cars. However there are more conservative estimates. For example, Volvo has said that we are many years away from completely driverless trucks becoming a reality, and they might not even be the end goal. Instead, trucks might have specific tasks automated such as steering, enabling drivers to deal with other tasks – like filling in paperwork.

28. Fully self-driving cars are not expected on the road until 2020 at the earliest, but Morgan Stanley predicts there will be massive market penetration by 2026 and that the cars we know today will be extinct in another 20 years thereafter. Taking various estimates together, driverless vehicles are widely expected to bring massive disruption starting somewhere between 2020 and 2030. This presents a potentially significant threat to CWU members employed as drivers.

Elementary occupations

29. This group includes roles that require little or no prior training, such as catering and cleaning roles. The Commission’s research finds that employment levels in this group have been in long term decline for many years but that there are some signs of this changing. The service sector in particular is beginning to generate a number of extra jobs in this area. It says that some new opportunities in call centres may help to reverse the decline but that some of these may fall within the more skilled customer service occupations category.

Predictions of the susceptibility of CWU represented roles to computerisation

27 Self driving trucks are going to hit us like a human driven truck, Scott Santens blog May 2015, accessed on 9th June 2016 at https://medium.com/basic-income/self-driving-trucks-are-going-to-hit-us-like-a-human-driven-truck-b8507d9c5961
28 Commercial Motor, 30th June, “Automatic for the People”, p 38
30 Scott Santens blog, ibid, May 2015
30. The Oxford Martin study mentioned earlier in this paper estimates the probability of computerisation for 702 detailed occupations, ranking them from least to most computerisable. The least computerisable role is ‘Recreational therapist’ with a probability of 0.0028, and the most computerisable role is ‘Telemarketer’ with a probability of 0.99.

31. Figure 4 below highlights some of the roles listed in this ranking that are performed by CWU members, along with their rank and probability of computerisation. It shows that engineering technicians, telecoms installers and repairers, and customer service reps have a relatively low probability of computerisation. Postal service clerks, loan interviewers, heavy truck drivers and postal service mail sorters have a relatively high probability of computerisation. Automotive technicians, postal service mail carriers and delivery service drivers sit somewhere in between.

32. These findings should be read on the understanding that they follow an occupation based approach i.e. they assume that whole occupations rather than single job tasks are automated by technology. As noted earlier, the findings have been challenged by a recent working paper for the OECD which follows a task based approach, and estimates that the impact of automation on jobs will be much less severe.

Figure 4: Selected CWU represented roles ranked by probability of computerisation

<table>
<thead>
<tr>
<th>Rank (from least to most computerisable)</th>
<th>Probability of computerisation (0 = least probable, 1 = most probable)</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>221</td>
<td>0.24</td>
<td>Engineering technicians</td>
</tr>
<tr>
<td>254</td>
<td>0.36</td>
<td>Telecommunications equipment installers and repairers, except line installers</td>
</tr>
<tr>
<td>297</td>
<td>0.49</td>
<td>Telecommunications line installers and repairers</td>
</tr>
<tr>
<td>315</td>
<td>0.55</td>
<td>Customer service representatives</td>
</tr>
<tr>
<td>Rank (from least to most computerisable)</td>
<td>Probability of computerisation (0 = least probable, 1 = most probable)</td>
<td>Occupation</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>324</td>
<td>0.58</td>
<td>Personal financial advisors</td>
</tr>
<tr>
<td>330</td>
<td>0.59</td>
<td>Automotive service technicians and mechanics</td>
</tr>
<tr>
<td>375</td>
<td>0.68</td>
<td>Postal service mail carriers</td>
</tr>
<tr>
<td>380</td>
<td>0.69</td>
<td>Light truck or delivery service drivers</td>
</tr>
<tr>
<td>430</td>
<td>0.79</td>
<td>Postal service mail sorters, processors and processing machine operatives</td>
</tr>
<tr>
<td>431</td>
<td>0.79</td>
<td>Heavy and tractor trailer truck drivers</td>
</tr>
<tr>
<td>563</td>
<td>0.92</td>
<td>Loan interviewers and clerks</td>
</tr>
<tr>
<td>565</td>
<td>0.92</td>
<td>Insurance sales agents</td>
</tr>
<tr>
<td>625</td>
<td>0.95</td>
<td>Postal service clerks&lt;sup&gt;31&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

*Source: Oxford Martin, 2013*

The threat to jobs in the postal sector

33. Frey and Osborne’s estimation of a relatively high probability of postal service mail sorting jobs, driving jobs and postal service clerks being computerised is perhaps of most concern for the CWU.

34. We are already aware of the damage that automation in mail centres is having on postal jobs, combined with e-substitution and the ongoing decline in letter mail. In the financial year 2015/16, there was a net reduction of 3,500 jobs in Royal Mail, and there has been a reduction of around 60,000 jobs in Royal Mail since 2003.

35. At the same time, the continued growth of e-commerce is driving higher parcel volumes, helping Royal Mail to remain profitable and offset the decline in letters. However, it has also given rise to fierce competition in parcel delivery from the likes of Amazon, Hermes

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<sup>31</sup> The Oxford Martin report does not define ‘postal service clerks’. However, the US Department of Labor describes the role as performing ‘any combination of tasks in a post office, such as receive letters and parcels; sell stamps; examine mail for correct postage.’ Accessed at: [http://www.bls.gov/oes/current/oes435051.htm](http://www.bls.gov/oes/current/oes435051.htm)
and Yodel, all of which rely on self-employed owner drivers who are paid poverty wages and are denied access to basic employment rights such as paid holiday, sick leave and maternity rights.

36. Another potential threat to Royal Mail is the prospect of Uber launching its courier service UberRush in the UK. The service connects customers with a courier rather than a taxi and at present it only operates in the United States. Uber says it currently has no plans to launch UberRush in the UK, but analysts say it is just a matter of time before it launches elsewhere.\footnote{Delivery on demand: is Uber’s courier service a threat to European operators? Guardian, 16th February 2016, accessed at: https://www.theguardian.com/technology/2016/feb/16/delivery-on-demand-uber-rush-courier-europe-postal-service-operators}

37. Against this backdrop, the CWU faces a major challenge in recruiting and organising postal workers in new and growing operators and preventing a race to the bottom on pay and conditions across the postal sector.

38. Longer term, not only does the possibility of driverless vehicles present a threat to postal jobs, but there is also a potential future threat from the development of automated drones for the delivery of packages. Amazon announced last year that it is working on a project called Prime Air, a future delivery system designed to get packages weighing up to 55 pounds to customers over distances of 10 miles or more.\footnote{Amazon Prime Air, frequently asked questions, accessed on 13th June 2016 at: https://www.amazon.com/b?node=8037720011} There is no timescale for its introduction, but Amazon says the automation technologies already exist and that it is now working on getting to a point where it can demonstrate that it operates safely.\footnote{Exclusive, Amazon reveals details about its crazy drone delivery program, Yahoo Tech, 18th January 2016, accessed at: https://www.yahoo.com/tech/exclusive-amazon-reveals-details-about-1343951725436982.html}

The threat to jobs in the telecoms sector

39. The predictions set out above indicate that many of the jobs carried out by our telecoms members, including line installation and repair and customer service roles, are at a relatively low risk of automation. BT has been recruiting more engineers and UK customer service representatives in response to customer demand for better, more reliable communications services.

40. There is also a general drive, including at EU level, for investment in high speed broadband networks which could help to secure and create jobs, at least in the short to medium term. Longer term, there is a risk that the growth of fibre and the phasing out of copper networks will create a much more robust infrastructure that requires less repair and therefore fewer engineering jobs. However, copper is still a vital part of the
network, and a strategy that includes fibre is vital for BT to continue to compete effectively and win new customers.

The threat to jobs in the financial services sector

41. The impact of digitalisation on jobs in the finance sector is expected to be varied, with some roles at high risk of automation and some at low risk. The Oxford Martin study predicts that most finance occupations, which involve a lot of tasks requiring social intelligence, are largely in the low risk category.\(^{35}\) However, many of the examples included in the study focus on high skill jobs such as financial managers, financial examiners and financial analysts. Some of the lower skilled finance sector jobs such as loan interviewers and insurance sales agents are in the high risk category.

42. Other research indicates that there is a significant threat to some of the more routine or less highly skilled jobs in the finance sector. For example, a report from the McKinsey Global Institute in 2013\(^ {36}\) found that up to $9 trillion in global wage costs could be saved as computers take over knowledge-intensive tasks such as analysing consumers’ credit ratings and providing financial advice.\(^ {37}\)

Challenges of representation for members and protection for workers

43. As jobs are displaced and new skills are needed in the changing digital economy, trade unions must begin to think about how they can best represent and protect the interests of workers, including through:

- Securing training and skills development to ensure workers remain employable and are able to transition to new roles.
- Strengthening collective bargaining influence and improving pay and conditions to help reverse growing income inequality.
- Ensuring that crowdworking is properly regulated, perhaps through a new status or a new form of employment contract. This should bring employment rights for workers and the financing of social security budgets through national insurance contributions and other employment related taxation.

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• Avoiding the destruction of jobs and a race to the bottom on labour standards as a result of competition between a regulated labour market and a non-regulated parallel labour market.

• Ensuring that machine created wealth is fairly distributed and that workers who lose their jobs to computers and robots are protected by a decent social welfare system.

44. These issues are being considered by organisations including UNI Europa and the European Trade Union Confederation, as well as by individual countries across Europe. The German and French trade unions have been particularly active, and in both cases this has been driven by government initiatives which have started an inclusive debate involving unions and other stakeholders on the future of the world of labour.

45. In France for example, the Government commissioned a report in 2015 to look at the effect of digital change on labour. The report included 36 recommendations for taking digitalisation in our stride, including in relation to training, reskilling, investment and new forms of work.  

46. In contrast, the UK Government’s digital strategy is geared towards meeting the needs of users, supporting innovation and growing infrastructure. There is no involvement of trade unions and no consideration of working conditions or quality of employment in new digital services.

47. UK trade unions have started discussing the merits of a universal basic income in response to increasingly automated and casualised workplaces. The GMB recently became the first major union to endorse this idea with a unanimous vote at its annual conference in June 2016, Unite endorsed the idea at its annual conference in July.

48. Advocates of a universal basic income believe it would help to eliminate poverty, reduce inequality and lead to higher wages for unloved and low paid work which should be more highly valued in society. However the idea has opponents who argue that a universal basic income would be: expensive, could create societal tensions, make immigration and movement of labour extremely difficult, and also be a less effective

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38 Digitalisation of the economy, ETUI, ibid, p.63
39 GMB Conference: Union pushes for basic income to replace benefits, Morning Star, 7th June 2016, accessed at: https://www.morningstaronline.co.uk/a-4ffb-GMB-Conference-Union-pushes-for-basic-income-to-replace-benefits
40 BBC Online, Is the left’s big new idea a ‘right to be lazy’? accessed 15/07/2016 at: http://www.bbc.co.uk/news/uk-politics-36782832
means of assisting those in need.\textsuperscript{41} They also fear that it would weaken the power of labour and the sense of solidarity that comes with it.\textsuperscript{42}

\textsuperscript{41} The Economist, “Basically Flawed”, June 4\textsuperscript{th} - 10\textsuperscript{th} 2016, p.12

\textsuperscript{42} The Economist, Universal Basic Incomes, June 4\textsuperscript{th} - 10\textsuperscript{th} 2016, p.21